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— TO —

ARTHUR WARWICK SUTTON, J.P., F.L.S., V.M.H.,

THE SEVENTY-THIRD VOLUME OF "THE GARDEN"

Is dedicated.

THROUGHOUT the world of horticulture Mr. Arthur Sutton is well known, and it is a pleasure to dedicate this volume of THE GARDEN to one who has accomplished so much in improving and raising flowers for our gardens and vegetables for our consumption. The cultivation and cooking of vegetables are receiving greater recognition, and it is due to such men as Mr. Sutton that this has occurred. The lectures that he has given before the Royal Horticultural and Linnean Societies have had much influence in promoting a knowledge of the wild types of vegetables and their evolution; an intense study has been made of the beginning of things in horticulture and agriculture, and this has resulted in improved forms which we appreciate in garden and farm. Well we remember the instructive exhibits of the wild types of Potatoes shown by Mr. Sutton at the great horticultural and agricultural shows, and the scientific interest they created. Mr. Sutton was born in 1854, and his residence, Bucklebury Place, Woolhampton, Berks, is surrounded with a charming garden. The Victoria Medal of Honour was worthily bestowed upon one who has done so much for horticulture and his fellow-men. Few men have shown greater sympathy with the sick and suffering, whether in Reading itself or in the larger sphere represented by the Gardeners' Royal Benevolent Institution. We dedicate this volume to one who is devoted to his Church, regarded with affection by his employees, and one who brings back from his travels delightful reminiscences. Mr. Sutton is a keen business man, and is not forgetful of the welfare of others.

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THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

SNOWDROPS AND HOW TO GROW THEM.

OF all the early spring-flowering bulbs the charming Snowdrop easily comes out a first favourite. It is one of the easiest of plants to grow, and succeeds in almost any soil, but never looks better than when naturalised in thin-growing grassland, under the shade of trees, or in large groups on the margins of woodland walks, as shown in the illustration on page 6. Planted in quantity in thin deciduous shrubberies, where the plants are not crowded together, they make an effective display in early spring before the leaves are out on the shrubs, and during summer the bulbs obtain that thorough ripening off that is one of their essential requirements. Unfortunately, some of the larger-flowering types, like the forms of G. Elwesii, are unsatisfactory in many gardens and have a tendency to die out in course of time. They, however, produce seeds in quantity, which, under suitable conditions, germinate freely. Although smaller than most, our native Snowdrop (Galanthus nivalis) is one of the most charming and desirable, as it increases quickly and in time forms large tufts.

Although all the Snowdrops are usually associated with the spring, and though most of them flower at that time, there are some exceptions, as in the case of G. Olgæ, from Greece, and G. nivalis var. octobrensis, which is said to have come from Albania. The former species flowers in October and the other usually in November, thus forming a link, through the December-flowering G. cilicicus, with those that bloom in spring. All these three are closely allied to our native G. nivalis, and only to be distinguished by their time of flowering. These autumn-flowering types are not very robust and fail to increase readily, so that they do not promise to become plentiful, although a good supply of G. Olgæ reached this country during the past summer.

Galanthus Allenii is a very beautiful Snowdrop and one of the rarest species. Midway between G. latifolius and G. caucasicus, with a leaning towards the former, it has broad, arching, slightly glaucescent leaves and large flowers. This plant succeeds best on a warm, sunny border, where the bulbs get thoroughly ripened during summer. Like most Snowdrops, this species succeeds best when allowed to remain undisturbed.

G. byzantinus is a strong-growing species with large bulbs. The leaves resemble those of the Crimean Snowdrop (G. plicatus), but the flowers differ in their markings. The former has the markings of G. Elwesii, with green inner segments, while G. plicatus has the green apex only, as seen in our native Snowdrop. G. byzantinus flowers early, often in January.

G. caucasicus may be called a robust G. nivalis, which it resembles both in flowers and foliage. It is, however, rather later in coming into flower.

G. cilicicus, from Asia Minor, is a winter-flowering Snowdrop much resembling in form and habit our native species. Although said to be a handsome plant in its native habitat, it has not proved very successful here, flowering very irregularly and gradually dying out. It is one of those species that requires plenty of moisture when growing, but well ripening off after flowering.

G. Elwesii is a most variable species, and contains some of the finest forms in the whole genus. It grows best in bare, somewhat light soils, a position like that shown in the illustration on page 6 suiting it admirably. Here it will increase rapidly by means of self-sown seedlings. Some of the more distinct forms have been separated and named, among the best being

G. E. Cassaba, a plant of great beauty, often attaining the height of 1 foot or more, with broad, slightly glaucous leaves and large flowers. This form likes rather stiffer soil than most of the others, but also the same thorough ripening.

G. E. Whittallii, called after its discoverer, who has done so much in introducing these and other bulbs from Asia Minor, is an early-flowering giant form of the type, with broad, glaucous leaves and large, globular flowers. The season of flowering of the different forms extends from February till April.

G. Fosteri is a distinct species from Asia Minor, with broad, dark green leaves and fair-sized flowers in March.

G. Ikariæ is also one of Mr. Whittall's introductions from the Island of Nikaria, off the west coast of Asia Minor. It is a very ornamental species with broad, bright green, glossy arching leaves, which develop quickly after the flower has pushed up. While having the leaves of G. Fosteri, it has the flowers of G. nivalis. They are large and pure white, the segments being over an inch long. They succeed best on a dry bank, especially where they are covered in summer with the leaves of some large plant like a Rheum or Rhubarb.

G. latifolius has robust leaves over an inch wide, but rather smaller flowers in comparison, which usually open in March.

G. nivalis, our native Snowdrop, is one of the best for naturalising in grass and so well known that it needs no description. There are numerous forms of this that are grown under separate names, some so closely allied that they may only

be distinguished by the specialist. One of the most distinct is the variety

G. n. Imperatii, a strong-growing form with erect leaves and large flowers, the segments being over an inch long. There is also the well-known double form, which is well worth growing. The variety octobrensis flowers in October or November.

G. Olgæ is an autumn-flowering species hardly distinguishable except in the time of flowering from G. nivalis.

G. plicatus (Crimean Snowdrop) is a vigorous plant with broad, plicate leaves and very large flowers when well established. The bulbs are very large, and somewhat stronger soil than usual is necessary for it to be successfully grown.

Cultivation.—There is little to be said in reference to the cultivation of Snowdrops. Taken as a whole, they like a light, well-drained soil that gets somewhat dry during the summer. In turf under trees where the grass does not grow too strong is the best position for such as G. nivalis and some of the forms of Elwesii, although the latter does equally well, if not better, in borders between deciduous shrubs. For cultivation in pans the bulbs should be potted up in the early autumn, and the pans plunged over their rims in ashes in a cool place till they begin to push up their flowers, when they may be moved into the cold house or into a cold frame to develop for indoor decoration. Any loamy soil is suitable, while the best sorts for this purpose are the different forms of G. Elwesii, G. Ikariæ, G. plicatus and G. nivalis. W. IRVING.

A FLOWER SHOW FOR OUR READERS.

WE specially draw the attention of our readers to the schedule of prizes which appears among our advertisement pages of this issue. As many will remember, we held a most successful show last summer, and we hope this year the exhibition will be even better. The Proprietors of THE GARDEN are again offering £100 in prizes and gold and silver medals, and we hope that readers will do their best to make the show a great success. We know perfectly well that among our readers are some of the best growers of flowers, fruits and vegetables in the United Kingdom, and we feel sure that they will exhibit on July 28 next. The schedule has been thoroughly revised so as to render it as convenient for exhibitors as possible, and those who cannot bring and stage their exhibits will be allowed to send them. As on the previous occasion, the greatest care will be taken to ensure that they will not suffer through the absence of the exhibitor.

PRIZES FOR READERS. JANUARY.

THE BEST METHODS OF GROWING SWEET PEAS FOR GARDEN DECORATION.

A First Prize of FOUR GUINEAS,
A Second Prize of TWO GUINEAS,
A Third Prize of ONE GUINEA,
And a Fourth Prize of HALF-A-GUINEA
are offered for the best essays on the above subject.

Attention should be given to suitable varieties and also to their combination with other plants, and originality is strongly desired.

The notes (restricted to 1,500 words) must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, W.C." The essays must reach this office not later than Saturday, January 30. Both amateur and professional gardeners may compete, but it is hoped that those who contribute regularly to the pages of THE GARDEN will not do so. The name and address of the competitor must be written upon the MS., and not upon a separate piece of paper. The Editor accepts no responsibility for and cannot undertake to return the MSS. of unsuccessful competitors. The Editor's decision is final.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

*** *The dates given below are those supplied by the respective Secretaries.*

January 12.—Royal Horticultural Society's Meeting and Exhibition of Flowers, Fruits and Vegetables, Vincent Square, Westminster, S.W., 1 p.m. to 5 p.m.

January 23.—French Gardening Society of London Annual Dinner at the Café Royal, Regent Street.

May 6.—Royal Gardeners' Orphan Fund, Annual Dinner, the Duke of Rutland presiding.

Our Calendar for 1909.—With this, the first number of the year, we are as usual presenting a calendar containing horticultural fixtures for the year. The dates have been supplied by the respective secretaries of the various societies, to whom we tender our best thanks.

British Gardeners' Association. The next meeting of the London branch takes place at Carr's Restaurant, Strand, at 7.30 p.m., on Saturday, January 9, when Mr. Cyril Harding of Cardiff City Parks will deliver an address on "Garden Cities: What they are and what they might be." Discussion will be opened by Mr. A. E. Cresswell, head-gardener to the Right Hon. the Earl of Lytton, and Mr. W. H. Morland of the Royal Parks, London. All professional gardeners may attend.

Sweet Pea trials for 1909.—The committee of the National Sweet Pea Society will continue its series of trials at the gardens of the University College, Reading, this year, and will test novelties and grant awards and certificates according to merit. No awards or certificates will be granted to Sweet Peas unless they are sent for trial at Reading. For these trials the varieties will be accepted only from the raiser or introducer; a charge of 2s. 6d. for each variety will be made. At the request of numerous seedsmen the committee will conduct a further and distinct trial solely for the purpose of testing correctness and purity of stocks of Sweet Peas. A charge of 5s. per variety or stock sent for trial will be made. A special and detailed report of any variety will be supplied to the sender of such variety at a charge of 2s. 6d. Sweet Peas for these trials should be sent to Mr. C. Foster, University College Gardens, Reading, not later than January 25. For the novelty trials not less than fifteen seeds should be sent, and for the purity trials not less than two dozen seeds of each variety or stock. At the same time a list of the varieties, together with the amount due for trial charges, should be sent to the hon. secretary, Mr. C. H. Curtis, Adelaide Road, Brentford, Middlesex. The proceedings of the floral committee will be printed in the autumn, and a copy will be sent to every person or firm sending seeds to either or both of the sets of trials.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Roses on sandy soil.—Certainly it is assumed that a strong soil is most suitable for Roses, hence the plea of "J. C." for regarding light soils as being also capable of growing good Roses. Anyone who has seen the dwarf and climbing Roses in the Royal Horticultural Gardens, Wisley, must admit that there, on almost pure sand, they have done splendidly. If a few of the less robust Teas have not made good growth, they represent varieties that would not thrive well in all cases. But Hybrid Teas do very well there, and although at first there was doubt as to whether the Roses would come strong the second year, there is no reason to assume anything of the sort now; indeed, they look as if they would, with ample surface feeding, such as Roses must have everywhere, go on growing well indefinitely. Too much is heard of Roses for exhibition, as though that was the sole aim and object of growing them, but numerous persons grow them for their garden beauty, and have to do so as best they can on all sorts of soil.—A.

Calceolarias.—The admirable coloured plate presented in a recent issue of the dwarf new Golden Glory serves to emphasise the fact that of modern varieties of the "reticule-bag" flowers the two newest are respectively of the dwarfest and the tallest habited. Golden Glory—it is so obvious to all who have seen it—has the habit of the greenhouse or presumably tender section of Calceolarias exactly. That with its large flowers, slender stems and broad leafage, it should yet prove so hardy is remarkable and shows that it has in it a strong strain of its hardier parent. The tall variety is Calceolaria Burbidgei, which seems, as pillar plants, to flower with profuseness and continuity beyond all others of the true shrubby type. The old C. amplexicaule will also grow into fine pillar plants, but does not seem to have that freedom of flower which marks the newer hybrid.—D.

Precocious Leucojum æstivum. I am glad to observe that Mr. S. W. Fitzherbert again returns to the subject of the peculiarities which exist in certain varieties of Leucojum æstivum. This precocious one is rather mysterious in its ways, as the bulbs kindly sent me by Mr. Fitzherbert in return for some of mine have never flowered in winter with me, and show no signs of blooming in my present garden at this season. This is the same result as in my former garden at Carsethorn. This variety produces its leaves much earlier than any others I have. I trust the Kew authorities will help us to identify these plants, as Leucojum æstivum or "Summer Snowflake" is an absurd name to apply to a plant flowering, even in South Devon, in midwinter.—S. ARNOTT, *Sunnymead, Dumfries.*

Plants in flower at Fota Island. Lord Barrymore writes on Christmas Eve from Fota Island, Queenstown, Ireland: "As an instance of the mildness of the weather it may interest your readers to know that we have in flower, all planted in the open air, Roses of sorts, Fuchsias of sorts, Laurustinus, Escallonias (three or four kinds), Pittosporum Tobira, Salvia Grahamii, Solanum jasminoides, Hakea pugioniformis, Grevillea rosmarinifolia, G. sulphurea, Choisya ternata, Camellia, Cassia corymbosa, Brachynema lanceolata, Manettia bicolor, Lavateras, Brugmansia sanguinea, Clianthus puniceus, Yucca gloriosa, Erica arborea, Ceanothus Gloire de Versailles, Cytisus, Jasminum primulum, Teucrium fruticans and Veronicas of sorts, a somewhat remarkable collection for Christmas week."

Yuccas flowering in December.—It may interest your readers to know that there are, within half a mile of my home, three Yuccas showing bloom at the present time

(December 17th). Two are in one garden, and one of these has a flower-spike over 1 foot long. I suppose this may be considered exceptional for this plant, and also may be attributed to the extraordinary absence of cold weather?—R. J. T., *Worcester.*

The spring bedding essays.—I have read with interest "A. W.'s" note (page 618) in criticism of the spring bedding essays. The first fault he finds is the mosaic patterns. Surely there is not much pattern about two subjects. He also criticises blue Myosotis and yellow Tulips. Are we not taught in "The English Flower Garden" that blue and yellow associate well? Also in the same place that dwarf perennials and bulbs together are to be commended? the idea being always to have the ground clothed. And even if there is a certain formality in the beds, would "A. W." have the mixed border and the wild garden in connexion with great formal houses, terraces and sunken flower gardens? I can assure him the effect would not be pleasing. Another point, "A. W." complains because no shrubs are mentioned. I suppose Ericas and Hamamelis are merely bags of colour from Holland. Even if Tulips, Narcissi, garden Anemones, Pansies and Hyacinths (the last two I have never mentioned in any bed) were omitted, I think there is plenty of material left in the article (pages 541 and 542). Among others there were Aconites, Iris, Chionodoxa, Leucojum, Hepaticas, various Saxifrages, Phlox, Iberis, Doronicum, Scillas, various Calochorti, &c. If "A. W." will look again, he will see (page 541) "A Few Suggestions"; the list was not meant to be a catalogue. I am quite in touch with the wealth of material available at that time in bulbs, herbaceous plants and flowering shrubs. Another point raised is the expense. Aconites 2s. a hundred, Spanish Iris 4s. a thousand; rather dear! Again, "A. W." says it is a matter of taste. If so, surely each person is entitled to his own, and there is no need to force his down other people's throat. — WILLIAM P. WOOD (Winner of the Second Prize Essay), *The Gardens, Oaklands Court, St. Peter's, Kent.*

—— After the perusal of the note by "A. W." on page 618, in which he criticises the excellent essays on the above subject which have recently appeared in THE GARDEN, I for one shall be deeply interested if he will give readers (as the Editor has invited) some details of the method of affording an attractive display without the use of Hyacinths, Tulips, &c. All gardeners are well aware of the abundance of material available for spring bedding; but how many would be satisfied, or would give satisfaction, by omitting bulbs entirely when preparing for a spring display? Cases are rare indeed where a few at least may not be used with advantage in gardens large and small, and surely the range of bulbous plants is large enough to suit all tastes. "A. W." mentions Forsythias, Flowering Currants, Cydonias, Daphnes, &c., as being charming for beds. These are all well worthy of attention, and in some cases may be, and are, used with good effect; but again, these shrubs would be entirely out of place if used for spring bedding in many gardens, owing to several reasons, chiefly, perhaps, the wealth of this material which is employed in furnishing the less formal part of the grounds. A bed of these flowering shrubs is a beautiful feature in the pleasure grounds, and the earliest shrubs to flower are generally the most admired; but where these are largely planted in the shrubberies, or as isolated specimens on the lawns, it would be hardly wise to plant them for furnishing the more formal beds or borders. "A. W." mentions the expense of the schemes mentioned by the essayists; but it is a moot point whether the furnishing of beds with good flowering shrubs would not be quite as expensive, unless, of course, they are intended to remain for several seasons. This is not permissible in many cases, as the beds are required for other things during the summer. It is the same with shrubs, so with many of the early-flowering herbaceous subjects. These are more at home on the rock garden, or in the more informal parts of the grounds, than they would be in beds of geometrical design adjoining the mansion.—C. RUSE.

IN ORCHID LAND.

WE spent a few happy hours recently in one of the greatest nursery gardens of the British Isles—Messrs. James Cypher and Sons of Cheltenham—a home of Orchids and exotic flowers in general. It was the occasion of our first visit to Cheltenham, and we shall ever remember wandering in the sunlit streets and revelling in the scent of the flowers from this favoured town nestling beneath the hills. Cheltenham is famous not only for its beauty, but for its Orchids. One seems transplanted to the forests of other lands when walking through the aisles of houses to be seen in Messrs. Cypher's nursery, aisles filled with a bewildering galaxy of Orchids, some from the plains, some from the mountain tops, and all naturally requiring temperatures of varying degrees. There are upwards of seventy spacious houses in this nursery, and the plants are conspicuous for their remarkable health; they seem to have the same vigour as the grass itself. Twenty of these houses are devoted to Orchids alone.

It is almost impossible to individualise when house after house is filled with species, hybrids and varieties in robust health. The collection of Cypripediums is one of the most comprehensive in England, especially the varieties of C. leeanum, such as burfordiense, aureum, aureum giganteum and magnificum. The exquisite C. fairieanum was a pure delight. This, it will be remembered by the ardent Orchidist, was lost to cultivation for many years and then rediscovered. As our illustration shows, the flower is dainty in form, and though the colouring is not revealed, this is dainty too. A halo of romance seems to surround this Lady's Slipper, which has given rise to many hybrids as beautiful as the parents from which they have emanated.

Those who have not yet grown the most fascinating and wonderful flower of the world of flowers may be reminded that the plants, except in a few instances, are not difficult to grow, and this fact has brought them before persons with moderate means. It was thought a few years ago that the display of enthusiasm for the Orchid was a passing fancy, but this is not so. More Orchids have been exhibited before the Royal Horticultural Society during the past two or three years than we ever remember, especially by Lieutenant-Colonel Holford, whose displays have been dreams of floral beauty. As we have already mentioned, a volume would be necessary to describe the treasures of this nursery. There are houses devoted to Cattleyas and all the principal genera, but it is not merely a home for "common" Orchids, if one may use so harsh a word for so beautiful a flower. Messrs. Cypher have thousands of seedling Orchids which have never yet bloomed, and many treasures have yet to be revealed. One of the most exquisite groups we have seen is that of Epidendrum prismatocarpum, one plant having no less than twenty spikes.

A GROUP IN MESSRS. CYPHER'S CYPRIPEDIUM HOUSE.

But it is not only Orchids that Messrs. Cypher are famous for; they are perhaps even better known for the wonderful culture of hard-wooded plants, and scores, we may almost say, of prizes have been won by them through the excellence of their exhibits. To realise the influence this nursery has had, and still has, on the culture of indoor flowers one must visit Cheltenham. Allamanda grandiflora was a flood of flowers, and in a house of trained plants of Stephanotis grandiflora one revelled in perfume. Then there was a house of Clerodendron fallax and those wonderful specimen plants which have delighted visitors to the shows. Ixora Duffi, Rondeletia speciosa, Statice profusa and other famous specimens were to be seen. One wishes more could be written of this interesting nursery, but the collection is so vast that it is difficult to do more than give our readers some idea of its contents.

SWEET PEA CHAT.

A MANDATE.—The orders of an Editor must be obeyed. I am commanded to write a fortnightly column during the current year for the benefit of Sweet Pea lovers, and I now make my bow to a generous, and probably keenly critical, public. First of all, let me wish every reader of THE GARDEN who grows Sweet Peas—Can there be a single one who does not?—success in the coming year, whether they are growing for exhibition or for their own exclusive satisfaction. Then I am going to claim (and not one will have the courage to dispute the assertion) that the Sweet Pea is the most popular, excepting the Rose, of all the garden flowers at the present time, and I venture to predict that it will remain so for the next generation. It can be as grandly grown in the small as in the large garden, and the reward of good culture is far more generous than can be had from any other plants at a similar outlay in seeds or plants.

ORDERING SEEDS.—The mention of seeds reminds me of the urgent necessity of advising growers to place their orders early. The demand has now become so enormous for the best new and old varieties that it is almost impossible for it to be met, and in the case of the novelties of the beautiful Spencer section I have no hesitation in affirming that many of the leading firms will find their stocks running short before another month has gone. The rule of our leading seed houses is to execute orders strictly in rotation according to receipt, and it is, therefore, obvious that the first comers have the best chances of securing what they desire. Whether it is a packet of mixed or a packet of the superb Zephyr, I say—Order to-day. Those who are uncertain as to the varieties cannot do better than purchase a collection, for these are reasonable in price and the seedsmen take care to include the finest varieties and the best possible seeds. One can have collections of one dozen, two dozen or three dozen, and if they choose the latter they may be practically certain that they have all the leading standard varieties in commerce.

THE QUESTION OF FIXITY.—The amateur grower often thinks when he finds a mixed row or clump that he is the only aggrieved individual, but I am of the opinion that the seedsman is in even a worse condition, for all those who have had an untrue stock from him launch forth vigorous letters and sweep up the floor with the poor man. This is hard, for no efforts are spared by growers to ensure trueness, but it really seems impossible to get it with some sorts. There is no doubt that matters are improving in this direction, and probably the happy day will arrive when we can be as sure of the waved standard forms coming true to name as those older sorts with smooth or hooded standards. At present it does not appear that guarantees of trueness are of material value, for varieties which have come absolutely true for two seasons have been known to go all to pieces in the third. However, firms of the first repute have seen the danger, and are wisely holding back their novelties until they feel reasonably safe in distributing them.

SEED-SOWING.—At the end of the present month seed-sowing will commence in real earnest, and preparations will be commenced for competition at THE GARDEN and other important horticultural shows throughout the country. Of course, many plants will already be up, but despite the undoubted advantages of autumn sowing the amount of such work done before Christmas is very small in comparison with that which is done afterwards. The best place for the pots is in a cold frame, and one of the commonest errors is coddling, which makes the plants weak and renders their transplantation without a check an exceedingly difficult matter. Grow the plants hardily from the first and they will not give the grower a moment's worry from the start to the finish. I favour 6-inch pots with five seeds in each in preference to small pots each containing one seed, unless the grower is prepared to go to the additional trouble of re-potting, as the small pot does not afford sufficient depth to ensure the uninterrupted progress of the roots. SPENCER.

THE KITCHEN GARDEN.

HOW TO GROW FRENCH BEANS AND POTATOES IN POTS IN A GREENHOUSE.

[*In answer to a Correspondent.*]

THE first thing to do is to secure a sufficient quantity of suitable soil and keep it in a moderately dry condition until required for sowing the seed in. The best soil to use is turfy loam, which has been stacked for some time, to mellow it down and to kill the grass. To half a barrow-load of this add a peck of decayed leaf-mould and the same of rotten manure, mixing well together. The best size pot to use is one 7 inches wide, inside measure. Before placing the soil in the pots, place three or four broken pieces of potsherd, concave side downwards, over the hole at the bottom to ensure proper drainage, and cover these over to the depth of 1 inch with the roughest part of the soil, pressing it down hard.

The next thing to do is to sow the seeds; nine Beans in a pot will be sufficient. Lay them on the surface at equal distances and press them into the soil with the finger 3 inches deep. Now place the pots in the greenhouse on a shelf as near the glass as possible, so that the plants, as soon as they are up, may have plenty of light but not too much air, as they love heat to grow in. They should be syringed morning and afternoon in order to keep down red spider, which is their greatest enemy.

As soon as the plants have reached the rim of the pot in height, they should be staked, using the top twigs of Pea-sticks about 18 inches long for this purpose. At first water must be sparingly given, but once the soil is filled with roots they must be liberally supplied, using liquid manure water twice a week as soon as a good lot of Beans are secured. The best time to sow the first crop will be February 1. If a continuous supply afterwards is desired, sow a few every fortnight. It is of little use sowing them in the depth of winter. Sutton's Plentiful is the best sort to grow.

To grow Potatoes prepare the soil and pots as for French Beans. The pots should be 9 inches wide instead of 7 inches. Plant three whole, medium-sized sets 4 inches deep in the soil. Place the pots in the coolest end of the greenhouse and keep them there while the plants are growing, giving them plenty of air and light while the weather is favourable. Potatoes do not like too much heat at any time. As soon as the haulm has reached to the height of 6 inches or 7 inches, they should be staked in the same way as the Beans.

Keep the soil on the dry side until the roots of the plants have well permeated it, when they will require more, but avoid giving too much water at any time, as the Potato succeeds best in a soil that is neither too wet nor too dry. The best Potato to plant is Sutton's Ringleader, and the best time to plant the first crop is the middle of January. If you wish to have successional crops until new Potatoes can be had out of doors, plant a few every fortnight until the end of March. Those planted in January should be ready for lifting at the end of March or early in April. It will be necessary in growing both the above-mentioned crops to give them constant attention, especially in regard to watering, ventilation and the maintenance of a proper temperature; but beyond this they cannot be regarded as difficult subjects to deal with. OWEN THOMAS.

THE ROSE GARDEN.

ROSES AND ROSE GROWING.*

I HAVE been asked to review this book, the latest addition to the small library that is fast growing up round our national flower; and it is an easy and pleasant task to do so, as I find the authoress does her best to disarm criticism by the modesty of her aims, setting out to perform no ambitious task, so is the more likely to achieve her object, simply desiring to set before her readers a "humble record of my own practical experience, its failures and its successes," and trusts that the same may be "the means of encouraging others in the cultivation of Roses."

As I am one of those who prefer to take up the standpoint that anything which will tend to that desirable end is worthy of praise, and that he or she who has made or helped to make two Rose trees grow where only one grew before has done something in that direction, my readers will understand the point of view with which I approach this book, and must not, therefore, expect me to treat it in any other spirit, certainly not in the spirit of carping criticism, which seeks only to find fault, and loses sight entirely in doing so of the aim which the author has in view in writing the book.

I gather that the book is written primarily for the owners of small gardens who tend their flowers themselves, and Miss Kingsley, therefore, has a large *clientèle*.

Of the eleven chapters that comprise the book, two of them are devoted to planting, pruning and propagating, seven to descriptions of the various classes of Roses, one to Rose pests and their remedies, and the final one on "How to Grow Roses for Exhibition," written, not by the authoress, but contributed by the Rev. F. Page-Roberts, who, since the book was published, has been chosen president of the National Rose Society, and to whom Miss Kingsley duly acknowledges her indebtedness.

Naturally she has turned to the Rev. J. H. Pemberton's book, "Roses: Their History, Development and Cultivation," published early in 1908, and to the various publications of the National Rose Society; but I gather that her text-book has been a copy of that old book published in 1844 and written by the late Thomas Rivers, one of the earliest of the Rose manuals that still finds an honoured place on the bookshelves of most rosarians, and which belonged to her father, the late Canon Charles Kingsley. He, too, I have no doubt, loved his Roses, though I believe I am right in saying that the Passion Flower was his favourite flower.

The first chapter, on "Making and Planting a Rose Garden," calls for no comment; the directions are simple and success will follow if they are carried out. One or two small points might be mentioned. Raffiatape is hardly the best material for tying up standard or pillar Roses; strong tarred twine, the other material mentioned, is much to be preferred, and 3 inches is rather too deep to bury "the collar or point at which the dwarf Rose is budded on to the Briar." Miss Kingsley states that she prefers that depth, as the soil always sinks a little in newly-made ground; but surely the plant sinks with the soil? and the tendency is to put on more soil and hence bury the plant still deeper.

The second chapter, on pruning, deals with that operation entirely from the point of view of one who grows his Roses from the "garden" point of view. The authoress is rather hard on the grower for exhibition, as she insinuates that he does not grow his Roses "for mere enjoyment." But I am inclined to think that of the two the exhibitor gets more enjoyment out of his plants

*"Roses and Rose Growing." By Miss Rose G. Kingsley, with twenty-eight full-page coloured illustrations, &c. Published by Messrs. Whittaker and Co., London and New York. Price 6s. net.

than the non-exhibitor. We are told that "hard-and-fast rules" in pruning are two: 1. Prune weak-growing Roses much harder than strong-growing Roses. 2. Always prune to a dormant bud pointing outwards. Both rules are excellent, but they hardly cover the whole ground. The illustrations of certain Roses in a non-pruned and a pruned state leave much to be desired, especially the latter if the plant is to be kept in a good shape; in fact, the pruned Rose in each case has only had a few shoots tipped. Roses if grown only for garden decoration are much better for being pruned, and it is seldom advisable to have five shoots like the fingers and thumb of a hand at the end of a long shoot; these should be taken off and the shoot pruned to the first dormant bud pointing outwards below them. One misses a photograph of a plant that requires hard pruning, and one is rather led to suppose that, this is an operation unknown in Miss Kingsley's garden, especially as we are told that in pruning "let the amateur remember that it is far safer to prune too lightly than to prune in excess." Of the two I would rather say it is far safer to prune hard than to prune lightly. The amateur should have been told, too, that the first season after planting all Roses must be cut back hard. Propagation by means of budding, cuttings and layering is dealt with fully; but grafting is omitted, presumably because so few owners of small gardens are likely to have the necessary heat for the purpose.

Miss Kingsley passes on to the Rose itself, and devotes a chapter to each of the following sections: III., Summer-flowering Roses; IV., Climbing Roses (summer-flowering); V., Climbing Roses (autumn-flowering); VI., Teas; VII., Hybrid Teas; VIII., Hybrid Perpetuals; IX., Bourbon, China and Polyantha Roses.

In the first are grouped the Cabbage Roses, the Mosses, the Damask, &c., the Austrian Briars, the Hybrid Sweet Briars, the Scotch Briars and finishing up with the rugosas. A description is given of each class, which is made interesting by a short history; but I should not have included such varieties as Stanwell Perpetual, Conrad F. Meyer, Blanc Double de Coubert and other hybrids of the rugosa under the heading of summer-flowering varieties, as they give us flowers right up to the frost. At the end of the chapter there are long lists of Roses that I venture to suggest would have been more useful to the owners of small gardens if a few of the best in each section had been marked.

In a small garden very little space can be spared for these summer-flowering Roses; they should be represented I admit, but that is all. The following chapter deals with summer-flowering climbing Roses, and the same remarks apply—the amateur is given lists occupying six pages of the book, not a few of which will not be found in any ordinary catalogue of Roses, and I think that a selection would have been more helpful.

Chapter VII. Hybrid Teas.—These come in for Miss Kingsley's commendation, as indeed they must. They form the *pièce de résistance* of the Rose-lover's garden, and there can be no doubt that many remarkable developments still await us. Miss Kingsley has a word to say for Messrs. Alexander Dickson and Sons' Irish single Roses, and one of the most beautiful plates in the book is that of Irish Elegance; indeed, it is favoured with two coloured plates. For the first time one finds selections given, but these occur in the letterpress and not in the lists at the end. There are a few errors here and there. Hugh Dickson has crept in among the Hybrid Teas, Harry Kirk and Peace are both Teas and not Hybrid Teas, John Laing Paul should be George Laing Paul, and Florence Pemberton is surely an exhibition Rose, though a garden Rose of high merit as well. On page 99 a few Roses are mentioned as being seen at every show, and we are told they are all exhibition Roses except Florence Pemberton. Then one would hardly call Etoile de France one of the best crimsons; but these and other matters are small details and in no way detract from the general merit of the book.

Chapter VIII.—An interesting chapter on the Hybrid Perpetuals follows. I am not quite sure that Miss Kingsley's pedigree of the first Hybrid Perpetual is correct—there seems to be a great deal too much Rosa indica in it—nor do I think the bed described as made up of some thirty Roses of different shades of crimson, scarlet and cherry would be quite such a success as is imagined; at any rate, it would have to be fairly large if more than one plant of each variety is to be planted, and how about the habit of growth? No, I much prefer one bed one variety.

Chapter IX. Bourbon, China and Polyantha Roses.—A large portion of this chapter is devoted to the last-mentioned class, and Miss Kingsley rightly says they should be more grown. The Dwarf Polyantha or Pompon Roses should have some representatives in every garden, however small, and the list of them at the end of the chapter is unusually complete. I do not share, however, Miss Kingsley's enthusiasm for Mme. N. Levavasseur; its colour is so crude.

In Chapter X., on Rose pests, Miss Kingsley pays a tribute of praise to the National Rose Society's latest handbook, "The Enemies of the Rose," and for the ordinary Rose-grower it surely is the last word; the chapter deals at length with the pests and their remedies. The last chapter in the book, as I have already stated, is by the esteemed president of the National Rose Society, and is entitled "How to grow Roses for Exhibition." Few know better how to grow them and fewer still could have better in the limits of a chapter told others how to do so, and his selection of the best exhibition Roses would be hard to beat.

I have left all reference to the feature of the book to the last—the illustrations; they are indeed excellent and nothing but praise can be given to them. For the most part they are coloured, and the printers, Messrs. Swain and Son of Barnet, are to be heartily congratulated on the success obtained. Where all are so good it would be difficult to pick out the best. The book is well printed and neatly bound, and is one that can be thoroughly recommended to all Rose-growers, especially to those who have only just started that most fascinating of all garden hobbies, and as a gift-book its illustrations alone make it worth the buying. I hope it will meet at the hands of book-buyers with the reception it deserves.

Purley. HERBERT E. MOLYNEUX.

THE MAIDEN'S BLUSH ROSE.

WE were asked recently to give a list of Roses, but one kind was essential—the Maiden's Blush. How pleasant are the memories which this sweet flower recalls—the Rose of the cottage garden, fragrant and with petals that seem to blush, a soft rosy tint that one loves to see on the cheeks of the English girl. "Maiden's Blush" is a pretty name for a pretty Rose, and it is a delight to find that a love for these old and beautiful garden Roses is creeping into the hearts of those who live in this matter-of-fact, bustling, hustling age. The old garden Roses are referred to in "Roses for English Gardens," and it is mentioned on page 15 that "important among the old garden Roses is R. alba.

Though it is allowed to bear a botanical name, it is not thought to be a species, but is considered a cross between canina and gallica. This capital Rose is often seen in cottage gardens, where it is a great favourite. The double white

ROSE MAIDEN'S BLUSH.

form is the most frequent, but the delicate pink Maiden's Blush is a better flower. Lovelier still is the less double Celeste, a Rose of wonderful beauty when the bud is half opened. When once known the albas may be recognised, even out of flower, by the bluish colouring and general look of the very broad-leafleted leaves. The blue colouring is accentuated by Celeste, and is a charming accompaniment to the rosy tinting of the heart of the opening flower. The albas, as well as others of the garden Roses, make admirable standards, their hardiness and strong constitution enabling them to be grown into quite large-headed bushes. It is no uncommon thing to see standards with heads a yard through in the gardens of cottagers, who also grow some of the Ayrshires in this way." It is most pleasing to find these old-fashioned, sweetly-scented Roses again coming into favour, as they possess many charms which commend them to lovers of the beautiful and fragrant. For filling positions in those gardens where formality is not tolerated they are excellent, their rather straggling growths rendering them specially suitable for such purposes.

COLOURED PLATE.

PLATE 1364.

SNAPDRAGONS AND THEIR CULTURE.

AMONG the many beautiful hardy plants that can be flowered the same year as the seed is sown, it is doubtful whether any are capable of giving such good and lasting displays as the Snapdragons, a popular name applied generally to the many varieties of the Antirrhinum. Strictly speaking, these plants are perennials; but as they may be so easily raised from seeds, most cultivators do not trouble to retain old plants through the winter unless extra large specimens are required, the modern practice being to treat them as annuals.

To obtain plants to flower the same year, seeds must be sown under glass during January or the early part of February, employing well-drained shallow pans or boxes as receptacles. A good soil mixture for sowing the seeds in is composed of loam (one part), sharp sand (one part) and leaf-soil or well-decayed manure (one part), the whole being passed through a small-meshed sieve, so as to render it fine and suitable for receiving the rather small seeds. Some of the rougher portion must be retained for placing over the drainage material in the bottom of the pans or boxes, as this will prevent the finer particles being washed down into the drainage, which, if allowed, would prevent a free escape of superfluous moisture.

When the rough and fine soil has been placed in position and made moderately firm it should be within half an inch of the rims of the receptacles, and the surface must be made quite level, when it will be ready for the seeds. As mentioned above, these are rather small, hence care will be needed to scatter them evenly and thinly over the soil. A light sprinkling of very fine sandy soil is all the covering needed, and this may be pressed down gently with the bottom of a clean pot. Water well with a very fine-rosed can, cover with a sheet of brown paper or a pane of glass and then stand the pans or boxes in a warm greenhouse or frame where the temperature ranges from 50° to 60°.

Should the soil subsequently show signs of drying, it must be gently sprinkled with a fine spray from can or syringe, taking care not to disturb the seeds. When germination has been effected, the brown paper or glass must be promptly removed and the pans or boxes placed near the glass, otherwise the seedlings will quickly become drawn and spoiled. As soon as the young plants are large enough to handle, pricking off must be resorted to, and boxes about 4 inches deep are the best for this purpose. Good drainage is essential, and the soil mixture advised for seed-sowing will answer very well, but it may with advantage be used in a rougher state. Three inches apart each way is none too much for the seedlings, and it is imperative that the soil be made firm around the roots of each as the work proceeds, a firm (not hard) rooting medium inducing that sturdy growth which is so desirable.

Keep the young plants in a rather close house or frame until they have taken well to the new soil, when a hardening off process must be commenced, affording more air gradually and keeping the plants as close to the glass as possible. If properly hardened off the plants may be set out in their permanent quarters by the middle of May, soil of a rather poor nature tending to free-flowering and good colours better than that of a very rich character. Old mortar or lime added to the soil will be much appreciated. If the tall and intermediate varieties are planted 1 foot apart each way and the Tom Thumb sorts 9 inches, they will quickly fill up and form a beautiful mass of colour in the late summer and autumn months.

For bedding purposes these plants are splendid, especially the intermediate and Tom Thumb types, the tall varieties being excellent for mixed borders and also for cutting. The many beautiful colours now obtainable in these plants should induce flower lovers to grow them more extensively.

The accompanying coloured plate represents three of Messrs. Sutton and Son's intermediate varieties, which attain a height of from 12 inches to 18 inches, and which are superb for bedding. In addition to the three there shown, this type can be obtained in rich crimson and yellow colours and also pure white, and these colours are also obtainable in the tall and Tom Thumb types. It is really wonderful how much these charming, old-fashioned plants have been improved during recent years, a fact that has led to their being more extensively cultivated in all gardens where beautiful colours and quaint forms are appreciated.

A BORDER OF SNOWDROPS IN A CORNISH GARDEN. (*See page 1.*)

TREES AND SHRUBS.

THREE GOOD VIBURNUMS.

THE three best deciduous Viburnums for gardens, or, at least, the most showy, are V. Opulus var. sterile (Guelder Rose), V. plicatum and V. macrocephalum. The first two are perfectly hardy; the last is better planted at the foot of a south wall than fully in the open. V. Opulus sterile is the barren form of the Guelder Rose, a shrub found wild in the hedges and thickets of Britain. It is a plant that loves good soil and abundant moisture, as, indeed, most Viburnums do. It is often used in shrubberies where it has to take its chance with other things, and its robust constitution renders it admirably adapted for this purpose. But to be seen at its best it ought to be grown as an isolated specimen or in a group on a lawn; it then makes a rounded bush, well furnished to the base, and grows ultimately 8 feet or 10 feet in height. The pure white trusses are 2 inches to 3 inches across, and appear in May and June at the ends of the branches; they are consequently scattered indiscriminately over the bush and have not the regular arrangement of V. plicatum.

V. plicatum is at last finding its way into gardens after more than half a century's comparative neglect. Without doubt it is one of the very best of hardy shrubs. It is considerably dwarfer in habit than V. Opulus sterile, and grows more slowly in height. This character renders it very suitable for planting in beds or groups. Its trusses of flowers are 3 inches across, and they occur in pairs at each joint along the branches made the previous year. The branches mostly take a horizontal direction, and as all the trusses grow upwards they form two regular rows, and each branch gives a magnificent wreath of blossom when at its best.

As far as the individual truss of flowers is concerned, V. macrocephalum surpasses all others in size. It is rounded or somewhat pyramidal in outline and from 6 inches to 8 inches across; the flowers are 1 inch to 1½ inches in diameter and pure white. This fine plant is the barren form of a species (V. Keteleeri) which is in cultivation, but not common. As stated previously, V. macrocephalum if grown out of doors requires the protection of a wall for it to thrive really well; such, at least, is the experience near London. There are, of course, many parts of the kingdom, especially in the extreme south and south-west, where that would not be needed.

YEW HEDGES.

THESE frequently present a rusty appearance at this time of year, which points to soil exhaustion. If given a liberal top-dressing of good farmyard manure, they will quickly respond by returning to a beautiful deep green colour. Collect all prunings of trees and shrubs, with fruit tree prunings and all the available wood, into a suitable place for burning. The wood ashes should be stored away in a dry place for future use in the flower garden.

T.

THE GREENHOUSE.

GREENHOUSE CLIMBERS (LAPAGERIAS).

I PRESUME it is owing to the long time which Lapagerias take to mature that they are not more frequently met with. The idea of only planting such things that yield immediately is increasing; but why I am at a loss to know, for is it not a fact that the only real pleasure to be got out of gardening is in the tending and watching of the most tender subjects? At any rate, this is my own experience—some would call it anxiety—but what is anxiety to some is pleasure to others, and I allude here to true lovers of gardening and not those who simply garden for what they can get out of it, and who cannot wait even twelve months to see the results of their labours.

Lapagerias bloom at a time when flowers are most acceptable, and for this reason alone their culture is worth every consideration. They are by no means delicate, providing they are given proper treatment and grown under favourable conditions. I agree, they are not easy to grow, especially when a bad position has been chosen for them. Numbers of people try to grow them in cramped-up houses, with the roots confined in pots and the growths (such as they are) tied within a few inches of the roof glass, and exposed to the full rays of the sun summer and winter alike. The idea is absolutely wrong.

If a lover of these beautiful climbers determines to grow them well, he must first of all make sure that he has a well-ventilated and cool house, for preference one with an eastern or northern aspect. This decided, the best position for the roots is under the shade of a wall and not in a pot, providing, of course, the plants are of a convenient size and ready for planting out. The roots have a rambling nature and delight in what we gardeners term an open compost. This should consist of two parts turfy loam, two parts peat broken into small pieces, one part broken brick rubble, three parts silver sand and half a part of bone-meal and soot. It is not necessary to have too large a hole made for the planting; the soil can be added to as the plants get older. After having placed the ball of roots in position and rammed the compost firmly round about, a good layer of silver sand should be placed over the whole and a thorough soaking of clear water given, for Lapagerias delight in an abundance of water; in fact, I do not believe it is possible to give them too much when they are growing. As to the established growths, it is not necessary they should be close to the roof glass; in fact, I always found they kept far cleaner and more free from thrips and spider when grown some 3 feet or 4 feet from the roof. But the chief thing in their culture is to watch the young growths as they push through the sand. They almost remind one of Asparagus shoots, and immediately they are visible some means should be used for protecting them, for if there is a slug anywhere near it is a million chances to one he will find the much-coveted growth before many hours. A paraffin lamp-chimney or a piece of wire gauze are the best; I prefer the former myself. Place the chimney over the growths and afterwards cover the top with a small piece of cotton-wool, for I can only at this point compare a Lapageria to a Cattleya or Orchids in general; it is absolutely essential to successfully establish each growth before a good display of flowers is obtainable.

The leaves of Lapagerias are not thick, but very hard and smooth, and, consequently, will stand any amount of syringing; I should say the more the better—at any rate, a good drenching twice a day from April to September. Bright sunshine is not good for them, but this can be prevented by shading at such times when the sun is powerful, or, better still, by the use of permanent shading, such as limewash or Summer Cloud. Year by year, as the plants get older, it will be found that the growths get longer. I have known shoots which have made their appearance in March to attain a length of 20 feet by September. In this case it was the Nash Court variety and in the Lapageria house at Nash Court, where beautiful flowers could be seen in thousands in the nineties.

There are several varieties in commerce, but the Nash Court one, although not the prettiest shaped of the red ones, is much the best to grow. It was first brought into this country by the late Mr. B. S. Williams, who, having it in his nursery at Holloway, was unfortunate in having the labels mixed, and by this means the plant was sold by mistake to Mrs. Lade, the then tenant at Nash Court, who would not part with it for any price until some years after, when a quantity of rooted layers were sold to the late Mr. John Laing of Forest Hill for a sum well into three figures, and after she had been awarded a first-class certificate by the Royal Horticultural Society. I have some recollection of Mr. Humphrey (the then head-gardener at Nash Court) telling me that one of the bines or branches which he sent to the Drill Hall, Westminster, carried eighty flowers—surely a great novelty; but it illustrates the able manner in which he handled these beautiful climbers.

GEORGE BURROWS.

Shendish Gardens, Hemel Hempstead.

A FREE-FLOWERING PLANT FOR THE GREENHOUSE.

(RUELLIA AMŒNA.)

A GREAT number of plants belonging to the Natural Order Acanthaceæ are of considerable value for the embellishment of the greenhouse or stove, as in the majority of cases their blossoms are freely borne and brightly coloured. One of the most continuous flowering of all is Ruellia amœna, a native of South America and fairly well known in cultivation, but certainly not met with to the extent that its merits entitle it to be. It forms a rather upright, freely-branched specimen, very effective when about 18 inches in height. The flowers, disposed in a loose and pleasing manner over the upper part of the plant, are tubular in shape and light crimson in colour. Individually they are a little over 1 inch long, somewhat curved and very much swollen in the middle. It is a plant of very easy culture if given the treatment common to the general run of warm, half-shrubby greenhouse plants.

THE FRUIT GARDEN.

LONGEVITY OF APPLE TREES.

A CORRESPONDENT writes: "I should be much obliged if you could tell me whether it is true that each sort of Apple dies out in a hundred years? Also, in what year was Ribston Pippin introduced?" This raises an interesting question relative to the longevity of the Apple tree. We cannot give a decided answer to this question. Perhaps some of our readers may be able to kindly do so.

The oldest Apple tree we know of is the original tree of Bramley's Seedling growing in one of the orchards of Mr. Henry Merryweather at Southwell, Notts. This, we believe, is over eighty years of age. It is a grand old veteran, but, as may be expected, showing signs of age in the partial decay of some of its limbs; but to all appearance to the contrary its life may be extended to considerably over a hundred years.

We were speaking on this subject a few days ago to an old Scottish gardener, who said that about three years ago he revisited the home of his childhood—a garden of which his father took charge in 1844 near Glasgow. At that time there were some large Keswick Codlin Apple trees in the garden at least twenty years of age. They were there still, thus making them upwards of eighty years old.

The first time Ribston Pippin is mentioned is in the catalogue of the Brompton Park Nursery in 1785. The original tree was raised at Ribston Park, Knaresborough, where it was blown down in 1810. It was afterwards supported by stakes in a horizontal position, and continued to produce some fruit until it died in 1835. Soon afterwards a sucker from the roots of the old tree grew up and formed a tree, which, we believe, is still alive.

A FREE-FLOWERING MASS OF VIBURNUM PLICATUM.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

HARDY FLOWER GARDEN.—All trenching and digging operations must be pushed on as rapidly as possible now during open weather. When the ground is frozen hard, manure may be wheeled into those positions where it is required and all stakes, labels and tying material attended to, so that

1.—AN OLD SEAKALE PLANT WITH SEVERAL THONG-LIKE ROOTS.

when the busy sowing season comes along delay will not be caused owing to these adjuncts not being ready. If severe frosts threaten, the tender Roses, such as Teas and Hybrid Teas, must be afforded protection, and there is no better way of doing this than drawing the soil up into a cone-like heap around the stems to a height of 8 inches or 10 inches. It is very probable that the growths will be killed down to this, but the buds beneath will be saved and in sufficient quantity to furnish the bush when growth has taken place. Standard varieties of a tender character should have a little light Bracken or straw tied among their branches, taking care to see that the shoots are well staked, otherwise they may be blown right out of the stock.

The Vegetable Garden.—Here again digging and trenching operations will provide the principal work. Rhubarb and Seakale may be lifted for forcing, and if the crowns of the former are exposed to frost or cold weather for a few days before being taken into the house they will force better. Where outdoor forcing is to be adopted (and the produce obtained thus is always of better quality), old boxes, barrels, or preferably large pots made specially for the purpose, may be placed over the crowns now, unless the ground is frozen, and banked well round with fermenting material, a mixture in equal parts of long stable manure and leaves being the best. Place a layer of this 18 inches thick all round each pot or tub and tread it firm.

Greenhouse and Frames.—If not already done, no time must be lost in thoroughly cleaning these structures, so that they will be in readinees for the busy seed-sowing season, which will soon be here. The present is essentially a time of preparation and anticipation, and all seed-pans and boxes must be cleaned and prepared ready for seed-sowing. Soil, too, for this purpose and also for potting must be partially prepared by taking the various ingredients in a rough state under cover and mixing them well together. The heap then will have time to dry somewhat and also become slightly warmed before it is required for use. Auriculas and Carnations in frames must now be attended to most cautiously, and it is very probable that they will not need any water at all. If the soil in which any are growing is quite dry, water it with warm water in the morning. Afford these plants plenty of air whenever the outside temperature is a few degrees above freezing point, as they are quite hardy, the object of keeping them in frames being to prevent them becoming saturated with moisture, which is fatal to their well-being. Roman Hyacinths, early Tulips and Daffodils and other bulbs may be removed from the plunging material as required ; they should go in a cold frame for a week or so until the tops are green before placing them in the greenhouse.

The Fruit Garden.—Any pruning not yet finished must be done as soon as possible, this remark, however, not applying to Gooseberries, which are best left until the end of February where bud-eating birds are prevalent. Any old trees that are covered with moss or lichen should be well scraped and cleaned and the trunks and branches thoroughly coated with a thick solution of fresh, hot lime. This will kill any vegetable matter that remains, and also any insects or their eggs with which it comes into contact.

Ordering Seeds.—The various seedsmen are now issuing their catalogues for the coming spring and summer, and it may be well to remind beginners in gardening of the advisability of sending in their orders early. All business firms execute their orders in rotation as received, and in the busy season delay is absolutely unavoidable. Much worry and loss of time, both to the seedsman and customer, would be saved by ordering early. Another point to remember is to take care and use the printed order-form now invariably sent out with a seed catalogue. Where this is done an order for seeds can be put up in a very short time, but where the items are jotted down without any regard to order, the poor seedsman or his assistant is given a considerable and unnecessary amount of trouble. H.

PROPAGATING SEAKALE BY ROOT CUTTINGS.

IN a recent issue we published a series of illustrations showing various methods of forcing Seakale. Doubtless there are readers of THE GARDEN who desire to raise a number of crowns themselves, both for outdoor and indoor forcing, and who are prepared to devote the necessary space and take the trouble to do the thing thoroughly.

There are two methods of propagating this subject, one by seed and the other by root cuttings. Raising Seakale from seed is an easy, cheap and satisfactory method of propagation, although much slower than that of cuttings. Seed is usually sown in March or early April. Drills 1 foot apart are made in well-prepared ground and the seed sown about 1½ inches deep and 6 inches apart. This is a better practice than sowing thickly and subsequently thinning out the resulting seedlings to 6 inches apart. Later on remove each alternate seedling, thus leaving the plants 1 foot apart ultimately. Two years at least are required for the plants to be sufficiently advanced to lift for forcing.

We have below endeavoured to show how Seakale crowns may be obtained for forcing within a year. We will first of all deal with the old plants as lifted for forcing purposes or any old plants obtainable in the kitchen garden, as these will answer our purpose admirably, and in Fig. 1 a good illustration of an old Seakale root is given. Here it will be observed how vigorous are the fangs or extremities of the roots. These thong-like roots, or "thongs," as they are technically termed, may be cut or broken off from the main root quite easily. The strongest plants are always raised from root cuttings, and these are obtained from the severed portions. Most beginners can, no doubt, procure a few roots from the garden of a friend, and if not able to do this they may be acquired quite cheaply from nurserymen. The severed thongs vary in thickness. Some are as thick as a man's forefinger, others are nearer in substance to that of the small finger of a lady. These are cut up into lengths of about 4 inches. For exceptionally fine forcing roots 6 inches is thought the better size by competent authorities, but either size will give satisfactory results.

The upper or wide end of each length should be cut straight across, and the lower or narrow end in slanting fashion. As there is often very

2.—PREPARED ROOT CUTTINGS MADE FROM THE THONG-LIKE ROOTS SHOWN IN FIG. 1.

little difference between the upper and lower end of some of the lengths, it is a good rule to cut the lower end slantwise, which quickly determines the fact. This should be done in the first instance. Fig. 3 aptly portrays three prepared lengths of the thong-like roots in varying sizes. These pieces are ready to be dealt with forthwith.

3.—ROOT CUTTINGS MADE INTO A BUNDLE READY FOR PLACING IN SOIL UNTIL THE SPRING.

There are two distinct methods of treating the prepared lengths. One is to tie them up into bundles of about twenty-five, and this may be done at any period during the winter. A series of such bundles may be placed on end thickly in suitable boxes, and a small quantity of fine, light soil should then be placed about them. A bundle of prepared lengths is depicted in Fig. 3. The boxes should be placed in the cold frame until April, by which period the root cuttings will have formed well-defined eyes which will ensure the production of good crowns in the distant future. Another method is to fill a box or a series of boxes of sufficient depth with some fine, light compost, dibbling in the prepared root cuttings about 2 inches apart, both in the rows and between the individual pieces. Take care that the thicker end of each root cutting is uppermost, and when inserting it see that it is just level with the surface soil. The cold frame or cool greenhouse will answer the purpose of the cuttings for some time to come, but care should be taken to keep the soil uniformly moist.

Before planting outdoors in April select quarters that are open and sunny. We prefer ground that has been trenched from 2 feet 6 inches to 3 feet, as the results always justify the labour expended in this way. A heavy dressing of cow, pig or peat moss litter manure should be incorporated in soil of light texture, that of a heavy character being better when well-rotted horse manure is applied. Seaweed is a splendid fertiliser for this root. These quarters should be prepared in the winter and the surface soil forked over and levelled in the spring previous to the planting.

When planting root cuttings that are to provide forcing crowns in the succeeding winter, plant them 15 inches apart in rows, observing a distance between the rows of 20 inches. Keep the ground clear, never permitting weeds to develop, using the hoe frequently to effect this desirable end. There is a tendency in some roots to develop flower-stems, but these must not be allowed to form under any circumstances. In the summer months, when growth is vigorous, occasional dustings of guano, soot or salt should be applied. Liquid manure also will encourage the plants to develop strong growth.

PYRETHRUMS AND THEIR CULTURE.

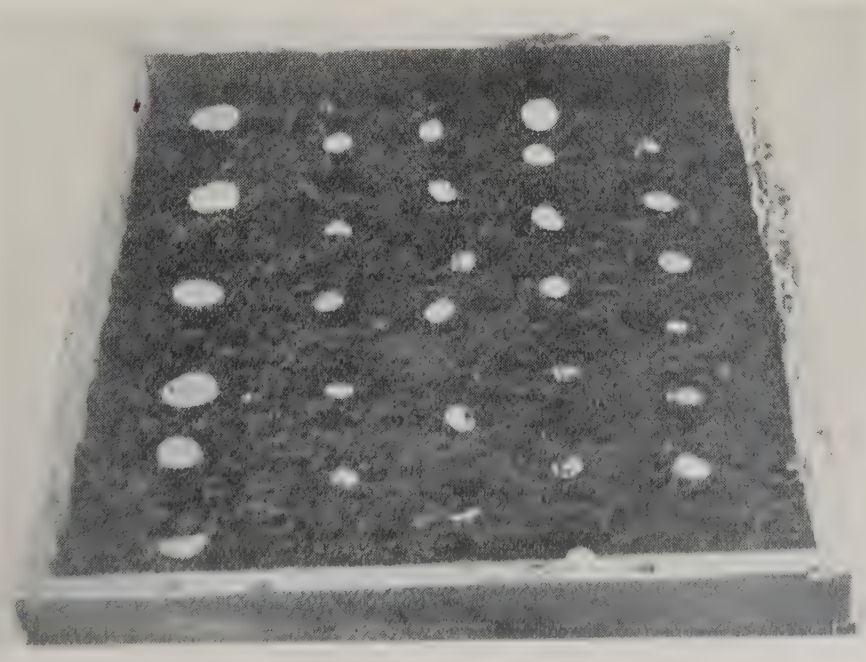
AMONG the many denizens of the herbaceous border, few, if any, are capable of giving such a wealth of graceful and beautiful-coloured flowers for a small outlay of time and money as the Pyrethrums, yet they are not grown nearly so extensively as their many merits demand. In addition to being first-class subjects for garden decoration, they are splendid for cutting, their long stems and graceful forms rendering them exceedingly attractive when arranged in tall vases. The range of colours now obtainable in these plants is so large that all tastes may be satisfied, and, of course, both double and single flowers of all colours may be procured.

As regards soil, the Pyrethrum is not at all particular, although, like most other plants, it delights in a deeply-worked, well-enriched root medium, and if this is of a rather cool nature so much the better. Where the soil is light and inclined to be sandy it may be rendered suitable by the liberal addition of cow manure, and if the plants are mulched during hot weather they will give good returns in soil of this description.

Planting may safely be done at any time during the winter until the end of February, providing the soil is not frozen or over-wet, and care should be taken to shake some fine soil well among the mass of fibrous roots, otherwise they will get matted together and not take to the new soil so well. In the border a good effect may be obtained by planting triangular clumps composed of three plants of one variety, and where they are used for filling large beds, it is best to use only one or two sorts of the same colour.

During the growing season, and especially when the flowers are just beginning to push up from the base, the plants are greatly benefited by frequent waterings with weak liquid manure. Light twiggy stakes will be needed to support the flowers, and these should be so placed that the plant retains its natural and graceful outline. Immediately the flowers have become shabby they should be cut down quite close to the ground, a mulching of well-decayed manure placed round the plants and the waterings with liquid manure continued. If this is done a second crop of most welcome flowers will be produced in the autumn. Propagation is easily effected by dividing the old clumps when they are lifted for replanting in the winter months.

The following are all excellent varieties which may be thoroughly relied upon: Doubles—Aphrodite, pure white; Carl Vogt, white, early; Empress Queen, blush; Ivonne Cayeux, primrose yellow; King Oscar, crimson-scarlet and Lord Rosebery, carmine-scarlet; Singles—Langport Scarlet, rich cardinal scarlet, new; Cassiope, crimson-purple; Dorothy, flesh colour; Edna May, clear pink, and James Kelway, crimson-scarlet



4.—ROOT CUTTINGS DIBBLED 2 INCHES APART INTO A BOX READY FOR PLACING IN A COOL GREENHOUSE OR FRAME.

THE TOWN GARDEN.

HOW TO IMPROVE IT.—Town dwellers have, of course, more difficulties to contend with than those who reside in the country. The very fact that there are so many drawbacks to be faced should make the owners of town gardens all the more determined to surmount them, and so have beautiful borders in their enclosures. To this end all enthusiasts will seek for information. In various instances work is deferred until the commencement of the New Year, and gardening is no exception. Thousands of owners of town gardens will now be able to look back with much satisfaction on the good results achieved during the past year, mainly owing to following the sound advice given week by week in this column. It has, no doubt, given them an impetus in their work and made them feel that, however good the work has been, they are determined to be still more successful in the coming year.

A SOUND BEGINNING.—The elementary work should be thoroughly done, else general effects will be marred. For example, if shrubs and other border subjects are planted in undug soil of poor quality, satisfactory growth will never result, so that in such circumstances there will be a never-ending work of mending which will, at the best, leave many ugly patches.

THE SHRUBBERY BORDERS.—There is not any beauty in stunted, unhealthy shrubs; but such a condition of these plants is frequently owing to lack of due preparation of soil in the first place and not to the unsuitability of the shrubs. Where it is intended to root out old specimens and to replant without delay young ones, or to make an entirely new border, see that the soil is first deeply trenched and enriched with manure before planting a single shrub. Even the deep stirring up of the soil will greatly benefit the plants. Shrubs growing in very hard, shallow-tilled ground soon show signs of distress and lose many leaves when a spell of hot, dry weather comes in summer, and it is during such a period that we like to see healthy, luxuriant shrubs. In trenching the ground thoroughly break up the subsoil 2 feet below the surface, but leave it below and well mix a generous supply of rotted manure with the soil nearer the top. All the roots of old shrubs should be carefully picked out of the soil, burned if possible and the ashes returned to the border. It is not necessary nor advisable to break up the surface soil too finely, especially if it be of a clayey nature, as the weather acting upon it will in due course pulverise and sweeten it, so that by the time spring comes it will be possible to rake down the surface lumps, as they will crumble to a powder. The following are suitable kinds of shrubs to plant: Aucuba japonica, Hollies (especially the smooth-leaved varieties), Privet (the evergreen and the oval-leaved sorts), Rhododendrons, Flowering Currants, Berberis Aquifolium, B. Darwinii, Euonymuses, Laurustinus, Pernettyas, Pyracanthas, Broom and Box.

THE PLANTING.—On no account should any shrubs be planted during frosty weather or while the soil is very wet. Wait until open weather comes and the soil is comparatively dry and does not adhere to the boots and tools. Make all holes sufficiently large to contain the roots without any cramping, but do not put in the plants too deeply. Make the soil firm around the roots and, in the absence of rain, give a thorough watering to settle the soil more firmly.

ROSES.—These should be protected from severe frosts, generally which come very early in the New Year. A surface mulch of half-rotted litter laid on to a depth of about 4 inches and tightly pressed around the stems of the bushes will preserve the roots from injury. Teas and the more tender varieties of Hybrid Teas should have some clean, dry straw wrapped loosely around their stems and branches in addition to the surface layer for the protection of the roots.

AVON.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUITS UNDER GLASS.

VINES.—If the Grapes have been cut and the leaves have all dropped from the Vines, no time should be lost in getting them pruned, as all Vines ought to be pruned a month or so before starting them into growth, so that the wounds may get well dried and hardened. Prune to a good plump bud, making a clean cut a trifle slanting, using a very keen-edged knife for the work. See that the glass and woodwork is thoroughly cleansed, especially if the Vines have been infested with insects; for this work rather strong soapsuds are as good as anything to use. If the Vines have been fairly free from insects, only remove a little of the loose bark and give the rods a good dressing with Gishurst Compound and a handful of sulphur added; but where mealy bug is present, the rods must be scraped more severely and washed a couple of times before receiving a good painting with a mixture of clay, soot, Tobacco water and Gishurst Compound. All insecticides should be used with care and no stronger than is necessary for killing the insects. After the Vines have been thoroughly put in order, remove a portion of the top soil and top-dress with bone-meal, loam, wood ashes, &c. Vines which are to be started at once should be syringed two or three times daily with tepid water. Keep the house close and at a temperature of 50° by night, with a rise of 5° by day and a little higher if mild.

Peaches.—January is a most favourable time to start these into growth for supplying fruits in succession to those in pots. The trees should be very carefully pruned and the houses made clean before closing them. Do not overcrowd the shoots, but allow ample room for the full development of foliage and the new growths. A temperature of 45° is ample for a start, with a rise of 5° more in about ten days. All houses should be more or less regulated according to the outside temperature, a few degrees higher in mild weather being advisable.

Tomatoes.—Seed may now be sown of any good dependable variety. Sow in well-drained pots (not too large) or pans, place them in a warm house and do not water heavily until the young plants are well above the soil.

PLANTS UNDER GLASS.

Gardenias.—As these begin to show flower buds remove the young growths which form immediately round each bud. The flowers will be larger and less likely to succumb. Do not allow the plants to suffer from want of moisture at the roots. A little soot water at intervals and a sprinkling of Clay's Fertilizer will greatly assist growth and blooms. To keep up a healthy stock a quantity should be struck annually. If not rooted in the autumn, see that cuttings are put in at once. Use plenty of sand when inserting the cuttings.

Crotons may be struck now or "ringing" the stems of healthy, clean plants resorted to. If the latter method be adopted, very nice plants are quickly obtained. After "ringing" bind plenty of moss round the stem and keep it well moistened till enough roots have been formed before potting them.

Begonia Gloire de Lorraine.—A little Clay's Fertilizer well diluted with tepid water and given these at intervals will greatly assist the plants both in flower and foliage. At this season of the year these plants are most useful, and should be extensively grown. Save the old plants when they have done flowering for raising fresh stock.

H. MARKHAM.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

WITH the advent of the New Year fresh hopes and aspirations seem to come as a matter of course. Seed catalogues arriving in quick succession have a stimulating effect to this end, and in connexion with these profitable use can be made of time in the long evenings by careful perusal of the pages of a selection of these, as well as of the notes taken upon crops during the past year, and the making out of new orders for the ensuing year accordingly. As in previous years, novelties hold a prominent place, some of which undoubtedly are improvements upon existing sorts; but while giving any particular new-comer thus recommended a trial, whether it be a flower or vegetable, it will be found a safe rule to place the greater dependence for a supply upon well-tried though older varieties.

An illustration may be given by quoting the now deservedly popular flower, the Sweet Pea. So many varieties of this genus now exist that it is quite possible for the cultivator, who has been at much trouble and expense to grow the best, to discover in the flowering season that several are so near alike in form and colour that the oft-quoted maxim, "differ in name only," is strictly applicable. In this particular instance the recommendation of the National Sweet Pea Society as to the best varieties to cultivate in all the more distinct colours and the appended list of too-much-alike varieties is worthy of perusal by all enthusiasts. This may be found in a back number of THE GARDEN, page 459, September 19, 1908.

PLANTS UNDER GLASS.

Growth being now at its lowest ebb, great care should be taken in the use of the watering-can, for although plants in growth must not be allowed to suffer for want of moisture, an excess of the same at this time leaves nearly as bad results. Manurial stimulants may be necessary for plants advancing to bloom, such as Primulas, Cinerarias and Callas, but the applications should be weak and given rather as secondary doses after soil has been well moistened with clear water.

Begonia Gloire de Lorraine.—Plants of this and its several pink and white counterparts that are passing out of flower may have the rough growths removed and, after cleaning and replenishing the surface soil, be placed in a position near the glass in a temperature of about 55°, with the object of their resting and the ultimate production of cuttings for early propagation. Obtaining cuttings is the chief difficulty connected with the culture of these superb autumn and winter flowers, for if cut hard back or over-watered immediately afterwards, the possibilities are that death slowly but surely ensues.

FRUITS UNDER GLASS.

Grapes still hanging upon the Vines would now be better, and keep sound equally as long, in the Grape-room, thus setting free the house for late-flowering Chrysanthemums and the consequent clearance being made of others, allowing pruning, cleaning and, if necessary, painting to be proceeded with. The present is a favourable time to start early and midseason Vines into growth, but heat should be applied very slightly at first. If the roots have access to outside borders, these should be protected with rough litter or Bracken, and spare lights or shutters, if possible, be placed over all to ward off rain and snow.

PLEASURE GROUNDS.

The collecting of leaves—Oak and Beech are best—will afford work for the outside staff when operations such as digging upon bare ground are impracticable. Leaves built into a large heap or heaps in a sheltered corner soon generate heat, and the placing of frames thereon offers a good opportunity to raise seeds of various kinds, to help on Lettuce plants, and to force Chicory, Seakale and Rhubarb. JAMES DAY.
(Gardener to the Earl of Galloway.)
Galloway House, Garlieston, Wigtownshire.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London, W.C.

BEGONIAS FROM LEEDS.

I am again sending you a few sprays of a seedling Begonia for your table, similar to the one I sent last year. It is a seedling from Begonia Gloire de Lorraine. I have been told by several growers that it is either Masterpiece or The King (but this I do not agree with, because it is a much stronger grower and has more substance in the flowers). Again, it is a seedling, while the two above mentioned are sports. It also stands the fogs better than its parent. On December 1 we had a fog which was the worst ever known in this district and lasted for six days; it damaged the leaves of Cinerarias, the young foliage and undeveloped blooms of Cyclamens, and neither foliage nor bloom was left on the plants of the Lorraine type of Begonia at the end of six days, but this seedling Begonia came through without damage to foliage or flower. This in itself is worth consideration. — P. CLAPHAM, *The Gardens, Brookleigh, Calverley, Leeds.*

[The Begonia sent by our correspondent is a vigorous and deep-coloured variety with excellent foliage.—ED.]

GENTIANA ACAULIS FROM YORKSHIRE.

Mrs. Kewley, Oran, Catterick, Yorkshire, sent us on December 16 two flowers of the beautiful rich blue Gentiana acaulis, which are of interest flowering at the season named. Although rather small, the flowers were perfectly formed and of moderately good colour.

APPLES FROM PRESTON.

I send you herewith four Apples. They are, I believe, called Pomeroy (which may be a corruption of Pomme du Roi) and come off a very old tree. This tree was blown down a few weeks ago. It was about 42 feet high and was a very good bearer. The Apples are excellent keepers and I think you will find them good cookers. The great beauty of the tree, however, was the blossom, which was of a deep red, and the tree was a striking object each spring, equal to many ornamental trees and shrubs planted for their blossom only. I am having some scions taken for grafting, and shall be pleased to send a few to anyone liking to try it.—WALTER DE H. BIRCH, *Walton-le-Dale, Preston.*

[The Apple sent by our correspondent is an old but excellent keeping variety named Colville Malingre.—ED.]

NEW PLANTS.

CYPRIPEDIUM ANTINOUS.—This is a very beautiful addition to the Lady's Slippers, the flower being large and well formed. The dorsal sepal is pure white, with a vivid green zone at the base, the central portion being heavily besprinkled with medium-sized, almost circular carmine dots. The petals and labellum are of the usual shape and size, their colour being a sort of yellowish green, the whole flower having a glossy, varnished like appearance. Shown by Lieutenant-Colonel Holford, C.I.E., C.V.O., Westonbirt, Gloucestershire. First-class certificate.

Calanthe Angela.—This is a lovely new member of a useful winter-flowering race and one that is most welcome. In shape and size there is nothing unusual about the flowers, but the colour is a beautiful rich scarlet-crimson, with just a very faint marking of white on the labellum. The plant shown had one raceme composed of seven fully-opened flowers and three buds. Shown by N. C. Cookson, Esq., Oakwood, Wylam. First-class certificate.

Calanthe vestita Norman.—This has rather larger flowers than the above-named variety, but the colour is not nearly so good, being a very dull crimson almost shading to magenta. This was also shown by Mr. Cookson and received an award of merit.

Cypripedium elatior.—This is a reputed cross between C. leeanum and C. Baron Schröder, neither of which it resembles much. The dorsal sepal is of medium size, very erect and rather rounded, with a white ground except at the base, where there is a small green zone, both white and green being thickly marked with dull carmine dots and blotches. The petals are rather narrow, much crimped at the edges and also ciliate. The colour of these and the rather small labellum is glossy dull carmine, with a little pale green showing through on the petals. Shown by Messrs. J. Veitch and Sons, Limited, Chelsea. Award of merit.

Odontoglossum Magali Sander.—This is a curiously coloured Orchid that would not appeal to some tastes. The flowers are of the usual size and shape, the creamy white ground being very heavily and regularly marked with chocolate-coloured blotches and dots, a tinge of carmine showing at the base of the labellum and some yellow in the throat. The plant shown had one long, pendulous raceme composed of thirteen opened flowers and one bud. Shown by Messrs. Sander and Son, St. Albans. First-class certificate.

Oncidium bicallosum Sander's variety.—This is a superb form of a good Orchid, and fully deserves the honour accorded it. The flowers are large, with stiff stems, the labellum being of the brightest possible yellow. The sepals and petals are of the usual shape and light brown in colour, with narrow pale yellow margins. Shown by Messrs. Sander and Son, St. Albans. Award of merit.

Acanthus montanus.—This remarkable species from West Africa is of shrubby habit, the nearly horizontally disposed leaves being deeply notched and armed with long spines. In the plant exhibited there was one central inflorescence of white flowers. The latter are sessile and disposed in a dense spike, which rises 1 foot or more above the highly attractive and ornamental leafage. In Nicholson's "Dictionary of Gardening" the above-named species is described as having rose-coloured flowers. Shown by Messrs. James Veitch and Sons, Limited, Chelsea. First-class certificate.

Sarcocca ruscifolia.—An evergreen shrub from China, with numerous clusters of drooping flowers of a greenish white colour. Also shown by Messrs. Veitch and Sons, Limited. Award of merit.

NEW FRUIT.

APPLE WILL CRUMP.—This is a new dessert Apple resulting from a cross between Cox's Orange Pippin and Worcester Pearmain. One of the fruits shown very much resembled the latter, but the others plainly showed traces of both parents. The fruits in size are about the same as Cox's Orange Pippin, but are rather more highly coloured. Shown by Mr. W. Crump, V.M.H., Madresfield Court Gardens, Malvern. Award of merit.

Hotbeds.—The making of hotbeds for forcing early vegetables will now be general in gardens where a good supply of Potatoes, Peas, Carrots and Radishes is expected, as a long, steady warmth is what is needed.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper*

FLOWER GARDEN.

Exhibiting Polyanthus (*Plural*).—Your chances of winning in the competition to which you refer will depend upon the standard of excellence in your plants on the day of the exhibition, and, of course, upon the superiority of your examples over those of other competitors. Merit in such a case should consist of fairly large and well-flowered examples, large trusses and well-formed flowers of good substance. Distinct shades of colour should be aimed at, and washy and much-alike varieties should be avoided. Thus, if you could select those of white, crimson or maroon, gold and carmine shades, you would be presenting four distinct and good colour shades as found in these plants. The flower-trusses should be well raised above the leafage, the plants in good bloom on the show day, and selected as near as possible of equal size. If you possess an odd frame-light, you may place it over the plants merely to keep the flowers clean, which is important. If the plants are in good ground, not much feeding will be required, but soot water and cow manure in solution is excellent, and given with discretion for two months will give the best results. Remember that a weak stimulant is best, and that a gross plant does not appeal to the judges as a rule.

Plan for a border (*W. H. F.*).—A border of the width indicated will take three rows of shrubs across—of course, not in hard and formal lines, but disposed according to habit and fancy of the planter. For the back row, that is to say, those which average from 8 feet to 12 feet in height, the following is a good selection: Amelanchier canadensis, white, April; Buddleia globosa, yellow, June; B. variabilis veitchiana, purple, July and August; Cratægus Pyracantha, white, May, and scarlet berries in autumn; Escallonia macrantha, crimson, August; Forsythia suspensa, yellow, March and April; Hamamelis arborea, bronzy gold, February; Kerria japonica flore-plena, yellow, May; Philadelphus grandiflorus, white, June and July; Rhus Cotinus, reddish, July and August; Robinia hispida, rose, June; Spartium junceum, yellow, July and August; Spiræa discolor, creamy white, June; S. lindleyana, white, August; Viburnum Opulus sterile, white, May; and Syringa (Lilac), common and Persian. Of the common Lilac, especially good varieties are alba grandiflora, white; Charles X., deep purplish lilac; Souvenir de L. Spath, crimson; Marie Legraye, white; and Kreuter, rose, single varieties; and Alphonse Lavallée, bluish; Emile Lemoine, pinkish; La Tour d'Auvergne and Lemoinei, lilac doubles. For the central row of medium height, that is from 5 feet to 8 feet, may be chosen the following: Berberis Darwinii, orange, May; B. stenophylla, golden yellow, May; Ceanothus Gloire de Versailles, blue, summer; C. Albert Pittet, rose, summer; C. Gloire de Plantières, light blue, summer; Choisya ternata, white, June; Cytisus albus, white, May; C. scoparius and varieties, May; Deutzia crenata flore-plena, white, June and July; Diervilla (Weigela), in variety, good ones being candida, white; Abel Carrière, rose, and Eva Rathke, crimson; Escallonia philippiana, white, June and July; Hamamelis mollis, yellow, February; H. zuccariniana, citron, February; Hibiscus syriacus in variety, late summer; Hydrangea paniculata grandiflora, creamy white, end of summer; Hypericum hookerianum, yellow, August; Rhodotypos kerrioides, white, June; Ribes aureum, yellow, April; R. sanguineum (Flowering Currant) in variety, April; Spiræa arguta, white, April; S. bracteata, white, May and June; S. Douglassi, deep rose, August; S. japonica, rosy red, July; S. prunifolia flore-plena, white, April and May; and S. canescens, white, July; Tamarix Pallassii rosea, pink, August; Viburnum Tinus (Laurustinus), white, winter; and V. plicatum, white, May and June. The front row may consist of shrubs of a maximum height of 4 feet or thereabouts, viz.: Berberis Aquifolium, yellow, spring; B. Thunbergii, pale yellow, spring; B. wallichiana, sulphur, summer; Ceanothus americanus, white, June and July; Cotoneaster horizontalis, pink, May; C. microphylla, whitish, May; C. rotundifolia, scarlet berries in autumn; Cydonia japonica, early spring, many varieties, among them being alba, white; Moerloesii, scarlet; rosea, pink; and superba, deep red; Cydonia Maulei, salmon, spring; C. Maulei superba, deep red, spring; Cytisus purpureus, purplish, May; C. nigricans, yellow, July; Daphne Mezereum, pink and white, early spring; Genista hispanica, yellow, April and May; G. tinctoria flore-plena, yellow, May and June; Hypericum moserianum, yellow, August; Kerria japonica (typical form), yellow, summer; Lavendula spica (Lavender), summer; Magnolia stellata, white, April; Philadelphus Lemoinei, white, June and July; P. Boule d'Argent, double white; P. Manteau d'Hermine, double white; P. Avalanche, white; and P. purpureo-maculatus, white, with purple blotch. All of these flower at the same time as P. Lemoinei. Rubus deliciosus, white, May; Spiræa Anthony Waterer, crimson; S. Bumalda, pink; and S. callosa alba, white, all of which flower in July and August. If preferred, a few low-growing trees, such as Almonds, Peaches, Cherries, Pyrus, Laburnum, the variegated Negundo and the purple-leaved Plum may be associated with the shrubs in order to break up any appearance of formality.

Rock garden that needs no attention (*Teufel*).—What you might presently accomplish in a hilly district of the extent of that to which you refer would, of course, depend not a little upon ways and means, and a rock garden on an extensive scale furnished with the more rugged subjects would be novel and interesting. But without shelter of any kind your chances for any great success would be distinctly limited, and we can hardly suggest to what extent success might be assured without knowing more of the circumstances. For example, you might plant bulbous plants on a large scale with Yuccas, rock shrubs and the like with every hope of success for several years to come; but the "rock garden that need never be attended to after it is once finished" would quickly become a wilderness of coarse herbage. The Tamarisk and Magnolia would possibly succeed, but the latter would require a fair amount of soil to grow in. We do not think the Mimosa or Palm would have the least chance of success. We take it there is water at hand or near, and if so it would be of material assistance in the case. We do not, however, gather from your letter either the nature of the rock, the amount of soil available for planting or the position, *i.e.*, aspect of the ground to which you refer. In all the circumstances it would be much the best for a specialist to confer with you on the spot.

Plan for herbaceous border (*W. J. Haughton*).—The better plan will be to arrange the plants in three lines, the latter to

be formed of irregular groups of the more conspicuous subjects. For example, the back row might be composed of single and double perennial Sunflowers, Pyrethrum uliginosum, Hollyhocks, Kniphofias, tall Michaelmas Daisies in variety and not more than three groups of the Rambler Roses. These, with Larkspurs in good distinct shades, would be very effective. In the second line of groups, red and white Japanese Anemones, Heliopsis scabra, red and white Phloxes in variety, Michaelmas Daisies of sorts, such Lilies as testaceum, chalcedonicum, candidum, Hansoni and tigrinum in variety, white and blue Lupines, Pæony sinensis, Iris aurea, I. Monnieri, Anchusa italica (Dropmore variety) and others, and in the front row Flag Irises of three or more sorts, single and double Pyrethrums, Aster Amellus, A. acris, A. lævigatus, Pæony Double Crimson, Gaillardias, Columbines, dwarf Phloxes, Clove Carnations, Campanulas of sorts, Sedum spectabile, Megaseas, Lychnis Viscaria rubra plena, Achillea alpina and others. If dwarfer things are needed, the Hepaticas, Pinks, Aubrietias, double white Arabis and Alyssum will assist, but these are early flowering.

Information about Polygonums (*J. H. W. Thomas*).—Polygonum compactum and P. sericeum are distinct species; the former is a Japanese plant and the la ter is from Siberia. P. sericeum is not of great decorative value. It grows to a height of from 1 foot to 1½ feet and has silky leaves.

Chrysanthemum leaves diseased (*A. E.*). The leaves of the Chrysanthemum are attacked by one of the mites allied to the one that produces big-bud in Black Currants and to the one that causes blisters on Pear leaves, but not identical with either. It would be well to spray the plants with paraffin emulsion, trying what strength they will stand before spraying all of them.

Cutting Pampas Grass (*M. Parry Okeden*).—The plumes should be selected prior to the seeds becoming ripe, or allowed to remain till fully ripe and the seeds threshed out. We believe also that the plumes are then bleached and dried, but we are not aware of the actual process. There is a considerable difference, too, in the varieties of this Grass, the erect plumes being the most ornamental.

Belladonna Lilies not flowering (*A. G. M.*). There is no doubt that the failure of your Belladonna Lilies to flower in a satisfactory manner was caused by keeping them absolutely dry when dormant Planted out in a narrow border close to a hothouse they are never subjected to this parching process yet at Kew and other places that we have visited they are flowering magnificently under these conditions. Another season by all means give the pots the benefit of the full sunshine, but give sufficient water to keep the soil moist. You state that the roots are rather potbound, but even if such is the case pots of the size mentioned are quite large enough for three bulbs.

ROSE GARDEN.

Roses for Southgate (*A. W. Field*).—You could not select more beautiful Roses than Florence Pemberton, Antoine Rivoire, Dean Hole, Anna Ollivier and Hugh Dickson. Instead of Mrs. S. Treseder we advise you to delete from your second list the variety Mme. Edmée Metz.

Old-fashioned Climbing Rose (*E. A. C.*).—Probably the Rose you are looking for is the Blush Boursault. We thought at first it might be Blairii No. 2, but this does not curl back as you mention. There used to be several Boursault Roses grown, but they have now disappeared.

Turkischeron Mutabilis (*Lady M. G.*).—We have not heard of the Rose you mention either under the above name or "Rose de Baveno." There was a Tea Rose introduced in 1889 under the name of Mutabilis, which is described as yellow and gold, and there was also a variety of the same name among the Noisettes some years ago. We fear you will not find the Rose offered by any nurseryman excepting it be some Italian firm. You might try Rovelli of Pallanza, or Buonfigluroli, Gaeton and Figrio, of Bologna. Your best plan would be to secure some buds next season and let your gardener insert them in the young growths of a Gloire de Dijon or a Banksian Rose, or upon any other that has some nice young growths. From your description it must be a Rose of great beauty, and being single would be full of charm. Evidently it belongs to the Tea-scented group, flowering as it does as late as October in Italy.

Dried blood for manure (*M. E. B.*)—You can obtain this article from Messrs. Clay and Son, Stratford, Essex. We appreciate your kind remarks relative to our articles upon the newer Roses. We always endeavour to keep our readers informed of the good things introduced as early as possible.

Roses for shady position (*E. S. Martin*).—You would find the little Scotch Roses very good for your purpose; but perhaps you would like something of better quality. In this case we name Mme. Isaac Pereire, Conrad F. Meyer, Blanc Double de Coubert, Mrs. Anthony Waterer, Armosa, Grüss an Teplitz, Ulrich Brunner and Mme. Laurette Messimy.

Tea Roses of good shape (*Postum*).—As you are desirous of obtaining varieties having good-shaped and full flowers we think you cannot do better than add Mme. Constant Soupert, Königin Wilhelmina, Mme. Gamon, Maman Cochet, Boadicea and Mrs. Myles Kennedy. These are not all of the colour you desire, but they are the best we can advise that possess quality of bloom, vigour, and that are fairly reliable. Many Tea Roses are much influenced by the seasons. There are some, such as Sappho, Empress Alexandra of Russia, Souvenir d'Elise Vardon, Jeanny Proudfoot, &c., that have splendid flowers in a good hot season, especially when grown at the foot of a wall or upon standards. If you desire some good apricot and salmon shades with quality of flowers, you should select from the Hybrid Teas such sorts as Joseph Hill, Paul Ledé, Earl of Warwick, Dean Hole and Prince de Bulgarie.

Grafting Roses in pots (*Crendonian*). In order to be successful with either ordinary wedge-grafting or bud-grafting one must be able to give a good bottom-heat to the Briars after they are grafted. This you would be unable to do in a frame. The temperature should be maintained to about 70° or 75°. To do bud-grafting the "stock" or Briar must be in a growing state, the sap being then flowing freely. The top of the Briar is cut off just below the branches. A cut is made in the rind or bark about half an inch in length. A small piece of wood or the bone end of a budding-knife is then pushed down this cut, which forces the bark open, and the bud-graft is forced into the aperture made. A bud-graft is simply cutting off a piece of wood containing one eye or bud, and beneath the bud the wood is cut wedge shaped. It is then ready for insertion into the rind of the stock, and is bound up tightly with raffia. If you are anxious to propagate new Roses quickly, you can also do this by budding outdoors early in May. To do this you would need to procure plants that had been grown in heat and that carried ripe buds. This practice is often adopted, and if it is a good season the buds start out and make nice little plants by the fall. After the buds have been inserted about three weeks the tops are cut off close to the bud. The Briar stock is not suitable to the Crimson Rambler race. They should either be struck from cuttings or budded on Manetti. Some good climbers, chiefly crimson, for a southern aspect would be François Crousse, Noella Nabonnand, Dr. Rouges, Waltham Climber No. 1, M. Desir, Climbing Liberty, Climbing Papa Gontier, Sarah Bernhardt and Ards Rover. Of other colours we can recommend Duchesse d'Auerstædt, Mme. H. Leuilliot, Mme. Choutet, Climbing K. A. Victoria, Mme. A. Carrière, Mme. Jules Siegfried, Lady Waterlow, Crépuscule, Climbing Caroline Testout and Mme. Jules Gravereaux. We cannot say that Climbing Cramoisie Supérieure would be so free in flowering as Grüss an Teplitz. If you planted some of the dwarf Chinas on your wall between the stronger growers, you would obtain a better display. Such sorts as Fabvier, Old Crimson China and Charlotte Klemm, and some of the red Teas, such as Corallina, Warrior and Betty Berkeley are splendid on walls and will soon cover a height of 6 feet to 7 feet. Mme. Chauvry is one of the lovelist of apricot Roses. Golden Queen is not very free in flowering until well established. It is a Rose of the Rêve d'Or tribe, and both are grand for lofty walls, where they can ramble away unpruned for three or four years. Reine Olga de Wurtemburg is a good Rose, but François Crousse is much better.

Roses for button-holes (*E. W. Roberts*).—We are not suprised that you admire Lady Battersea as a button-hole flower, for there is none better. The following half-dozen would, we think, please you, and they possess long buds: Mme. Pierre Cochet, Mme. Abel Chatenay, Gustave Regis, Betty, Lady Roberts and Pharisaer. The following are useful sorts to grow where beauty of bud is desired: Irish Elegance, Rosette de la Legion d'Honneur, Warrior, Sulphurea, Mme. Antoine Mari, Mme. Falcot, Mme. Paul Varin-Bernier, Meta, Souvenir of Stella Gray, Hugo Roller, Niphetos, Comtesse de Cayla, Anna Ollivier, Aurore, Crépuscule and Mme. Hoste.

Scarlet Roses for massing (*M. Musson*).—This is a colour we are at present very deficient in, at least, as regards Roses for massing. Some of the China or Monthly Roses make a fine mass of colour, especially Fabvier and the new Charlotte Klemm. Among the Teas and Hybrid Teas you could not do better than plant Liberty, Richmond, Grüss an Sangerhausen, Ecarlate, Princesse de Sagan and Marquise de Salisbury, and for climbing Hugh Dickson, Grüss an Teplitz and François Crousse. Ten good orange-coloured Roses for bedding are Mme. Ravary, Le Progrès, Paul Ledé, Edu Meyer, Lady Roberts, Instituteur Sirdey, Marquise de Sinety, Perle des Jaunes, Mme. Paul Varin-Bernier and Jenny Gillemot.

Roses with erect blooms (*Rufus*).—The Roses you name have good stiff stalks, but we cannot say they quite compare with Antoine Rivoire in this respect, for it is one of the best that possess this valuable trait. Frederick Harms is a very lovely Rose, and we wonder it is not more often grown. Amateur Teyssier is fine, with a slight inclination to droop as its large flowers develop. Mrs. David McKee is good, but its blooms are not specially solid. If you grow this Rose, we do not think you would require Grossherzogin Alexandra. Perle von Godesberg is scarcely distinct enough from Kaiserin Augusta Victoria. Reine Marguerite d'Italy is rather dull in colour and a Rose wanting in form, although very free flowering and deliciously sweet. There is nothing special about Mme. Philippe Rivoire. If you do not possess them, you should certainly add to your collection Elizabeth Barnes, Earl of Warwick, Pharisaer, Gustav Grünerwald (this especially for October flowering), Joseph Hill, Lady Ashtown, Mme. Maurice de Luze Mme Eugenie Boullet, Mme. Segond-Weber, Paul Ledé and Yvonne Vacherot.

Transplanting budded Briars (*A. A.*).—It would be a mistake to disturb your budded Briars, for they will make much finer plants if allowed to remain where they are. If you were certain of being compelled to move from your present residence and had another place in view, the best plan would be to transplant them to the new garden at once. Even by so doing they receive a check. There is no need to coddle these budded Briars. If we have a very severe winter, you could tie several of the stems together by crossing one to the other; then scatter some hay or Bracken Fern over the branches so that the snow may lodge thereon and thus shield the buds. If the plants are fairly free from insect pests, budding cotton could be tied over the buds until danger from winter frost has passed away. If you really must dig the Briars up, then lop off the branches as suggested and heel the roots in a trench under a north wall or fence. Let the Briars lean towards the wall. A few boards could be placed over them by leaning these against the wall, and we think you would find the buds come out of the ordeal unharmed.

THE GREENHOUSE.

Name of, and information about, an Orchid (*W. K. P.*).—The name of the Orchid enclosed is Oncidium incurvum, a pretty little free-flowering species, native of Mexico. It may either be grown in the cool Orchid house, or in one kept at a rather higher temperature. It grows well in a mixture of peat and sphagnum, the pots, of course, being well drained. Like many of the cool-house Orchids, it is evergreen in character, and at no time must it be dried off in any way. Of course, less water will be required in the winter than in the summer, but the soil must be kept moist at all seasons. If repotting is needed it is best carried out in the months of February or March, as the roots being then active, they soon take possession of the new compost. Throughout the winter the structure in which this Oncidium is kept should not, even on the coldest nights, be allowed to fall below 45°. During the summer the temperature of the outside air is warm enough.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

THE CULTURE OF PLUMS UNDER GLASS.

THE Plum of late years has received more attention than formerly, as these fruits, when afforded glass culture, give such splendid results. I am aware amateurs who have only a limited amount of room at their disposal do not often grow the Plum in this way, but the results secured are excellent, and the fruits grown thus are really superb if a good number of the Gage section are chosen. A small house can be made suitable for a number of trees, as by having three lots a succession is maintained for a considerable period.

My remarks now more concern what I may term permanent trees, that is, those planted out, and once the trees are in a fruiting state they give very little trouble, but in all cases they should get an airy or well-ventilated house. In the South of England, near the coast, I once had a house of these fruits. This was a lean-to on a north wall, an old-fashioned structure, the sashes of which could be removed from the roof, and the trees only had a narrow border 3 feet to 4 feet wide; but here we got grand crops, and we used at certain periods to flood the border and mulch when in full bearing with partially decayed manure to help the surface roots and retain the moisture given.

I do not advise growing the Plum, even under glass, as a cordon, as the trees do best with extension; they must be planted so that root-pruning can be done readily, as they require it more frequently than other trees. Another point, and an important one, is that the soil when planting must not be too light or porous, a good holding loam being best, and with it should be mixed a liberal quantity of old fine mortar rubble or wood ashes. Avoid raw manures of any kind, as these are best when given later on the surface. The trees do well in any position. I have grown them on back walls when not shaded by other trees, but there must be abundant ventilation, and if a house is devoted to these fruits it is an easy matter to give plenty at the season required.

We must now consider planting and varieties. Planting should be done as early in the season as possible, though I have had excellent growth the first year by late planting. A deep border is not necessary; the trees I have referred to above only had 2 feet of soil over the drainage. Each tree should be made quite firm, and the soil must be in a workable state and placed under cover in advance if new borders are made. The Gages come first owing to their superior quality, and these planted to form a succession, from Oullin's Early Gage to Golden Transparent, will give ripe fruits in the same house from early August to October if not forced in any way, and the fruits will hang a considerable time and become perfect sweetmeats. I have had Coe's Golden Drop from trees under glass in a cool house of splendid quality for autumn dessert. This Plum keeps well when quite ripe, so that it should be grown for that purpose. The Early Transparent Gage is excellent for glass culture; it is one of the richest of the Gage section, a huge fruit, greenish yellow with crimson markings, firm flesh and juicy. I have named Oullin's Golden Gage, which is also a large, oval, bright yellow fruit and very early. Denniston's Superb is likewise a delicious Gage, and nearly a fortnight earlier than the Old Green Gage. Bryanston Gage, a large, round, green, midseason fruit, blotched with red, is juicy and excellent. Jefferson, an American Gage of splendid quality, must find a place, as this is a splendid cropper under glass and is a large yellow fruit. I have previously noted the value of the Late Transparent Gage, which is one of the best late Gages. Reine Claude de Bavay is also late. Of other varieties, Kirke's is a splendid blue Plum and excellent with glass culture. Golden Esperen, a rich, early September fruit, is worth room.

G. WYTHES.

FAIRY RINGS IN LAWNS.

[*In reply to several Correspondents.*]

IT always seems to me that to call the curious circular marks on lawns and pasture-fields fairy rings is quite a misnomer, for who could imagine that such delicate creatures as we have been taught fairies are could possibly be the cause of the bare or particularly thick grass circles so often found on short grass, however nimbly and constantly they may have danced on the same circle; but in old days they may have known more about these elfish creatures and their ways than we do in these rationalistic times. Anyhow, we attribute these rings to the fungi or Toadstools which we find growing on them. Not that the Toadstools are the cause, for they are merely the spore-bearing part of the fungus; but it is the spawn which is the real plant and it is continually extending itself into fresh soil, so the ring, year by year, becomes larger.

The reason that the grass forming the rings is so thick and dark-coloured is that the dead remains of the previous year's growth of the fungus form a highly nitrogenous manure; and the rankness of this grass, which is generally avoided by sheep and cattle, was recognised by that keen and accurate observer of Nature, Shakespeare, for he writes: "The nimble elves, Which do by moonshine green, sour ringlets make, Whereof the ewe bites not." There are several kinds of fungi which have this habit of growing in rings; the common Mushroom often forms partial rings, but why all fungi of this description should not form rings is not very clear. Probably

all that grow on grass-land would do so, and those which do not have not the same opportunity. The Giant Puff-ball has at times been found growing in rings, but it is seldom that many are found growing together.

The fungus that is usually the cause of the rings is Marasmius oreades. The Toadstools should always be swept away as soon as they appear, so as to prevent them from shedding their spores. The rings originate from a single Toadstool, which sheds its spores around it; some of these germinate, and the ring, though small, is begun. Every year the spawn pushes forward into fresh ground, and the spores which fall on the new soil germinate, while those which fall on that which has already been exhausted by the fungus do not, and so the ring increases in size year by year. Sweeping away the Toadstools does not in any way kill the spawn, hence that also must be destroyed or removed

The best way of effecting this is to loosen the turf to some extent with a fork, so as to allow the fungicide to soak well in, as it is necessary that it should reach every bit of the spawn, then thoroughly soak the turf and soil where the ring is and also that for some 18 inches outside the ring with strong Bordeaux mixture four times, at intervals of a week; or a solution of sulphate of iron (1lb. to a gallon of water) may be used in the same way for the first application, but of half that strength for the subsequent ones. This is an easier way of destroying the fungus than cutting out the soil and replacing it with fresh, though the turf may not quite like such treatment for the moment. Marasmius oreades is one of the edible fungi, and is said to have a good flavour; but it must always be remembered that because a fungus is found on a fairy ring it is not sure to be edible. Other plants besides fungi have been known to form fairy rings. Certain Composites, Labiates, Irises, Grasses, Sedges and Rushes under favourable conditions of soil form ring-shaped colonies, due no doubt to the underground shoots pressing forward towards fresh soil and the death of the old plants. G. S. S.

PRIZES FOR READERS. JANUARY.

THE BEST METHODS OF GROWING SWEET PEAS FOR GARDEN DECORATION.

A First Prize of FOUR GUINEAS,
A Second Prize of TWO GUINEAS,
A Third Prize of ONE GUINEA,
And a Fourth Prize of HALF-A-GUINEA
are offered for the best essays on the above subject.

Attention should be given to suitable varieties and also to their combination with other plants, and originality is strongly desired.

The notes (restricted to 1,500 words) must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, W.C." The essays must reach this office not later than Saturday, January 30. Both amateur and professional gardeners may compete, but it is hoped that those who contribute regularly to the pages of THE GARDEN will not do so. The name and address of the competitor must be written upon the MS., and not upon a separate piece of paper. The Editor accepts no responsibility for and cannot undertake to return the MSS. of unsuccessful competitors. The Editor's decision is final.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

*** *The dates given below are those supplied by the respective Secretaries.*

January 12.—Royal Horticultural Society's Exhibition of Flowers, Fruit and Vegetables, Vincent Square, Westminster, 1 p.m. to 5 p.m.

January 21.—Gardeners' Royal Benevolent Institution, Annual General Meeting at Simpson's, 101, Strand, London, W.C., at 2.45 p.m.

January 23.—French Gardening Society of London Annual Dinner at the Café Royal, Regent Street.

Outdoor Vines at Wisley.—The general Press has been commenting on the effort being made at the Royal Horticultural Society's Gardens, Wisley, to create an open-air vineyard, where a large number of Vines of the best-known outdoor varieties grown for wine-making are not only planted, but are now well established. It is not, I presume, hoped to make a second Castle Coch vineyard at Wisley, or to embark in the making of British wine. That form of enterprise does not seem to have been very successful at Cardiff, although the conditions as to soil and situation may possibly be more favourable at Wisley than in Wales. But I have a lively recollection of the great effort made some years ago by a famous Vine grower, Mr. Clement Hoare, not in the open, but against low walls on the sunny side of a sloping hill in South Hants, and how, with all his energy and enthusiasm, with summers more favourable to outdoor Grape ripening than they now seem to be, the result was a failure. I have little hope that any good other than to reveal comparative failure will come from the Wisley enterprise.—A. D.

The Poisons and Pharmacy Bill. This Bill passed its third reading in the House of Commons on the 17th ult., received the Royal Assent in the House of Lords on the 21st ult., and becomes law on April 1 next. This new Act entitles nurserymen, seedsmen, florists, agricultural agents and others to stock and sell, after obtaining a licence, poisonous compounds required in horticulture and agriculture. It is the outcome of an agitation started and carried on by the Traders in Poisonous Compounds for Trade Purposes Protection Society, which was formed in 1900 in consequence of prosecutions which had been brought against tradesmen (nurserymen, seedsmen and ironmongers) for having sold or kept open shop for the sale of insecticides, weed-killers and sheep dips containing a poison, and notably the cases of the Pharmaceutical Society *v.* White and the Pharmaceutical Society *v.* Wrench. Mr. G. H. Richards of 234, Borough High Street, London, became the promoter and treasurer, and Mr. T. G. Dobbs of 14, Sansome Street, Worcester, was appointed and continues to act as secretary and solicitor. A Bill was prepared by the secretary and solicitor known as the Trades Poisons and Poisonous Compounds Bill, and the provisons of this Bill were brought forcibly before the Board of Agriculture and the Lord President of the Privy Council, who, realising that some alteration in the law was required, appointed a Departmental Committee to consider the matter. The Traders Society, being the prime movers in the agitation, was asked to submit witnesses, which was done, with the result that in 1903 the Departmental Committee made their report and recommended an alteration in the law on the lines of the Trades Poisons Bill. Following this up, the society organised deputations to wait upon the President of the Board of Agriculture, and eventually the Government took the matter up and introduced the Poisons and Pharmacy Bill. Petitions were signed and presented to Parliament, and the agricultural and horticultural societies and chambers of commerce were asked to co-operate in the effort which the Traders Society was making to get the Pharmacy Act, 1868, amended; but it was only after a great deal of patient work and perseverance on the part of the Traders Society that the Bill was successfully pioneered through Parliament this session.

Plants in flower on Christmas Day.—Mrs. Hamworth Booth, Rolston Hall, Hornsea, Hull, sent a charming gathering of flowers picked in the garden on Christmas Day—they were all out of doors; Rose, Chrysanthemum, St. Brigid's Anemone, Jasminum nudiflorum, Virginian Stock, white Heather, Gentianella (Gentiana acaulis), Marigold, Pansy, Violet and Aubrietia.

Sutton's Garden Diary for 1909. As usual, this is a most artistic and useful little publication, and should be in the hands of all who love their gardens. Brief but comprehensive notes on the culture of vegetables and flowers accompany each monthly calendar, and spaces for comments add much to the value of the book. This, we believe, has been distributed to Messrs. Sutton's customers, but the firm still have a few copies left, which may be obtained, price 1s. net, from their offices at Reading.

Presentation to a horticultural society secretary.—After the formal business meeting of the Dunfermline Horticultural Society on the evening of the 26th ult., an interesting and pleasing function took place, when the members presented to Mr. John Hynd, who has been secretary of the society for the past sixteen years, a handsome timepiece, with a brooch for Mrs. Hynd, on the occasion of their silver wedding. Mr. Dunagan, president, presided, and the presentation was made by Mr. James Meldrum, one of the oldest members. He voiced in an able way the sentiments of the subscribers, who desired to congratulate Mr. and Mrs. Hynd on celebrating their silver wedding and of showing how much they appreciated the long and able services of Mr. Hynd as their secretary. Mr. Meldrum referred to the able way in which Mr. Hynd performed his duties, and stated that he had never heard a complaint of the manner in which they were executed. Mr. Hynd made a feeling reply, in the course of which he attributed to his wife his interest in flowers, and spoke of the pleasure this afforded him.

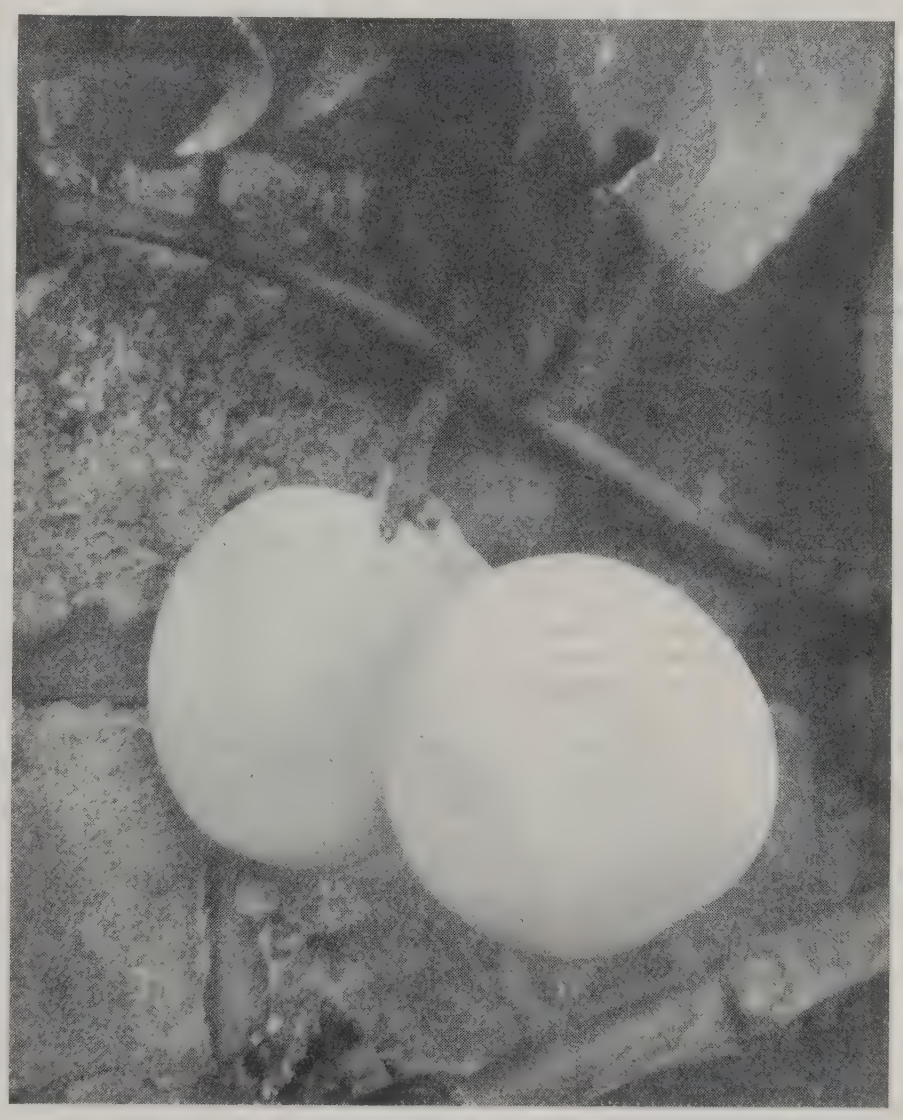
CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

"The Garden" Flower Show Schedule.—I have gone carefully through the classes as arranged in the schedule and ask leave to offer one or two criticisms. In the small fruit classes, the enforced presentation of White Currants seems likely to limit the competition, because so few persons relatively seem to grow them. In Gooseberries there is a far wider range of distinctness than in Currants. I should have thought a class for six dishes of smaller bush fruits, distinct, sufficient. While no question as to what is an autumn-sown Onion can be raised, it is often in relation to what constitutes a spring-sown Onion, although it is commonly assumed to be raised from an outdoor sowing in the spring. If that is so, then Onions raised from a winter sowing have no class and may well be disqualified if presented as spring-sown. I should like to have seen a further class for winter-sown glass-raised Onions, and one for white Turnips, these taking the places of the class for intermediate Carrots and the one for tap-rooted Beets, as the date, July 28, is too early to have these maincrop or autumn and winter roots in season. It so often happens that to find good roots of these many are pulled and thus wasted.—A. DEAN.

Perpetual-flowering Carnations as garden plants.—I noticed in your columns a few weeks ago a letter dealing with

the Perpetual-flowering Carnation as a garden plant. Perhaps it may be of some interest to readers if I give my experience on the subject. Like your correspondent, I had my plants from Messrs. Hugh Low and Co. of Enfield. I may mention that up to this year my one thought in the garden had been of Roses; indeed, I have had very little room for anything else, but with that persuasive way of his that all Messrs. Low's clients must know, Mr. H. Barnard suggested that I should try a few Perpetual-flowering Carnations in between the Roses, as they had wintered them out of doors at Bush Hill Park and had found them quite hardy; he further invited me to see the Carnation houses there. This was the beginning of the end. In company with another Rose enthusiast, a sceptic like myself, I went, and we came to the conclusion that the sight of one of the 250-feet houses of Carnations in full bloom was worth travelling much further than Bush Hill Park to see. Both of us—Rose lovers—succumbed to the temptation and decided to try them in our Rose gardens. I had about thirty plants to begin with, and this autumn I have made room in my garden for many more next year. The plants were in 5-inch pots, and they were planted out at the beginning of May. To make sure there should be plenty of drainage—a most important point in growing Carnations of any sort—I placed about 2 inches of sand at the bottom of each hole and planted without disturbing the roots. Beyond staking, tying, taking precautions not to let the plants get too wet, and keeping a sharp look-out for slugs and caterpillars, which seem to regard Carnation leaves as a particular delicacy, they needed no further care. From the time the buds were showing colour they had weak doses of liquid manure occasionally. But the flowers! From the beginning of July until November the same plants have been blooming continuously, sometimes with as many as six or seven blooms on a plant (Brittania) at the same time. As to varieties, I should say Brittania, Lady Bountiful, Enchantress, Mrs. Burnett, White Perfection, Harlowarden and Nelson Fisher, in the order named, are the best for garden purposes. Brittania, Lady Bountiful and Enchantress—all three appropriately named—did best, and most especially Brittania. I admit that Victory is a finer individual flower of the same colour, but it is nothing like so prolific as Brittania. Like her namesake who still rules the waves, she seems to come up smiling in spite of all difficulties, for when the garden was being altered and it was necessary to take the plants up, I laid all the Carnations with the heels packed close together in a trench for a matter of three weeks or a month, but Brittania still persisted in blooming even there. Floreat Brittania!—E. C.



GAGE PLUM DENNISTON'S SUPERB. (*See page 16.*)

SHRUBS IN SPRING BEDDING.

SOME time ago I sent a letter to THE GARDEN on the subject of mosaic flower-beds, *à propos* of two prize essays which have lately been published advocating something of this kind in the spring garden. Until I saw in the issue of the 26th ult. a note signed "E. M. D." commenting on what I said, I was not aware that my letter had appeared; but on referring back to the paper of the previous week (page 618) I find it is printed *in extenso*, with a civil note from the Editor appended inviting me to state my views on the subject in a short essay to be entitled "Attractive Features in Spring Gardening, excluding the use of Tulips, Hyacinths, Narcissi and Garden Anemones"—rather a lengthy title, by the way. I am grateful for the courtesy, but cannot think of attempting anything so ambitious as an essay on such a subject, which in any case could hardly be short; nor am I pledged to do so by anything I said in my letter.

As a means of correcting a very obvious tendency to a mechanical, jam-tart style of spring gardening, I suggested that those who write essays for competition might be invited, by way of discipline, to devise schemes of spring gardening with the omission of certain Dutch bulbs, which, from being procurable at cheap rates and in assorted colours and easily arranged in mathematically exact lines, circles, dots and so on, tempt gardeners to imitate in spring a style of gardening which used to be fashionable in summer—and may be so still for all I know, though I see little of it—a style which tends to make every garden where it is employed as like every other bedding garden as the situation of the ground will permit. The Editor infers from my remarks that I despise Dutch bulbs and their brilliant colouring. Quite the contrary; I love every bulb that grows, and if I had an estate large enough and a purse long enough, I would charter a Dutch sloop each autumn to bring me a cargo of Tulips, Daffodils, Hyacinths and garden Anemones, and would plant them when I got them in tens of thousands. Unfortunately, I have never had the chance of planting these bulbs in such numbers as I should desire, nor ever shall have the chance (and yet in my time I have planted a good many); but if I could command all the bulb gardens of Holland and were on my beam-ends how to dispose of a surplus of Tulips, I would not use them in producing the piebald effects after which some gardeners seem to strive with so much misplaced ingenuity. Surely after a time owners of gardens must weary of carpets of creamy this, fringed with an edging of golden that and dotted over with azure and other things at intervals of so many feet or inches. A Keizerskroon Tulip is a glorious flower, and so is a good Polyanthus; but I ask any reasonable mortal whether it would be possible to dot Keizerskroons at intervals of 1½ feet over a bed of mixed Polyanthus without making both flowers ridiculous.

I remarked in my letter that a whole class of important materials had been neglected in their bedding schemes by the writers of the essays, viz., the various beautiful spring-flowering shrubs, and I instanced Forsythias, Flowering Currants, Cydonias and Daphnes, selecting these for the very good reason that I have a pretty intimate acquaintance with their character and habits. "E. M. D.," a little sceptically I am afraid, invites me to explain how these shrubs may be used in spring bedding, but warns me to be "practical" in anything I say. I suppose I shall be practical enough for "E. M. D.'s" purpose if I suggest only what I know can be put in practice. It is true that in any gardening I have done I have only had to please myself, and if, in order to pass for practical, it is necessary to have satisfied some exacting employer by keeping his parterres "bright" eleven months out of twelve, I had better resign myself to being considered a mere theorist. At the same time, I quite understand what I am writing about, can recognise a flower-bed when I see it and know the character of the shrubs I am discussing; and I have no hesitation in saying that the Forsythia, the Flowering Currant and the Daphne Mezereum may be as easily used for bedding as the scarlet Geranium, and, further, that so used they will relieve the stiffness and formality that is likely to result from the exclusive use of bulbs and low-growing tufted plants, and will lend a charm and variety to flower-beds which, without them, these will lack. As to the Cydonia, invaluable also in the spring garden, in view of the exigence of employers, it is to be recommended, perhaps, with qualifications, since it certainly cannot be manipulated with the ease of a scarlet Geranium in respect either of planting or of propagation, and at certain seasons might be an intolerable eyesore to those owners of gardens who insist on having their flower-beds kept bright all the year round.

Forsythia suspensa is a shrub of the easiest cultivation. It roots as easily as an Elder tree, and forms a mass of coarse roots which frequent transplanting will only render more active and vigorous. If cut back immediately after flowering, it will form in one season long, lithe canes like the branches of a Weeping Willow, which, in its habit of growth, it a little resembles. Those, however, who find that Forsythia suspensa does not lend itself sufficiently to this tessellated style of garden ornamentation might try F. viridissima or F. Fortunei. I cannot, however, say much about these varieties. F. suspensa is the plant I should use, and I am quite sure that if I had the plants and the space I could use it to such advantage that any owner of a garden who once saw it in his beds would never again consent to be without it, even if it had to be left in the bed as a permanency. As to what to plant with the Forsythia to effect the inevitable "combination" or "harmony" or what not, that may be left to the taste of the artist. If I were planting a bed myself to set off the architectural beauties of some old and lichened country seat, the companion I should give to the Forsythia would be the green turf; but, if that conception should seem too elementary, there are dozens of creamy and golden and azure

things that may be diced and dotted round it till the bed vies in brilliancy with one of those Oriental fabrics on which the pious Moslem kneels to pray.

As to the Flowering Currant, it is just as easily managed as the Forsythia. It may be raised from seed by the thousand and it grows quickly. The smallest plants flower abundantly, and the more you cut this Currant back the better it likes it. Frequent transplanting would render it absolutely indifferent to removal at any time of the year. It is not a brilliantly-coloured subject, but it runs through a scale of pretty, quiet shades which no other spring plant known to me can supply. As to the possible harmonies, I leave that to the artist; only I would remind him that the tones of this Ribes are pitched in a minor key, and, therefore, I should not try any dotting with Keizerskroons.

Now I come to the Daphnes, by which, of course, I mean hardy Daphnes, and particularly Daphne Mezereum. If anyone is so fortunate as to have "a wide expanse of lawn abutting on the grey walls of some old mansion," or, better still, on the brick walls of some spacious Queen Anne residence, and desires something particularly sweet to place by my lady's window, let me advise a bed of white Daphne Mezereum. The shrub is a coarse rooter, like the Forsythia, may be transplanted and retransplanted not only without injury but with positive benefit to the plants, and does not grow to any unmanageable size. In spring, if it has been well grown, it will have long rods of 12 inches to 18 inches, which will be solid cylinders of bloom, and on a sunny morning its thousands of blossoms will impregnate the air with the perfumes of Araby—not too strong a perfume either, but just enough to make you wish there were more. If any garden proprietor should like the plant well enough to let it remain in the bed the season through, the beautiful flowers will be succeeded by still more beautiful amber berries, though, of course, they will not have the fragrance of the blossoms. Combinations and harmonies as per usual—Arabis, Myosotis and Daisies, or, if it is preferred, Daisies, Myosotis and Arabis.

As to the Cydonias, I am afraid if they are to form a feature of spring bedding it must be as a permanency, though I see no good reason why, if they are kept severely pruned, as they must be to flower their best, they should not form a fine central body of foliage round which to set out summer or autumn bedding plants. These shrubs, however, are subject to outbursts of late summer blooming, which would have to be taken into account by the creator of harmonies. The Cydonias are so extremely beautiful, they flower so early, and continue in flower so long that it is difficult to conceive the owner of a garden grudging these shrubs permanent quarters in his flower-beds. As they bloom on the old wood they can be kept at any size found to be most suitable, though no doubt these shrubs are seen to best advantage in other situations where they can straggle to their heart's content and fling out their branches in free curves. The varieties now obtainable have a considerable range of colour, from warm crimsons and scarlets at the one end to the purest white (in nivalis) at the other. I am not sure, however, that the most exquisite shades of this shrub are not found in the intermediate colours—Apple-blossom whites, flushed with rose, as in the variety, for instance, which is called in horticultural jargon Cydonia japonica albo cincta. In connexion with these plants there are few stumbling-blocks in the path of the inventor of harmonies. He must take care not to allow the scarlet and crimson shades to fly at each other's throats, and if he would avoid a discord which would be particularly harrowing to his sensibilities he must take care not to put the Cydonia Maulei near the more fiery individuals of the japonica race. Wherever formal bedding forms a feature of the spring garden, these shrubs should certainly find permanent quarters in some of the beds. In summer, when the bloom is over, the foliage will form an acceptable background and protection to such things as Begonias, which generally seem to me to require something of the kind. If I had to furnish spring beds I would have Cydonias in my scheme of things, even if I were forced to grow them in tubs.

So much for my assertion that certain shrubs might be used for a certain purpose in the spring garden. Whether my remarks have been of a sufficiently practical nature I cannot say. They are as practical as I know how to make them. But I hope no one will suppose that my list of shrubs is exhausted by those I have mentioned. There are various Berberises—Darwinii, stenophylla, Thunbergii, &c.—of which I believe a great deal could be made. The useful old double Kerria would stand a deal of knocking about. There are varieties of Genista and Cytisus, I fancy, which might be forced into the service. Surely also, with the recent improvements in the Lilac, there are varieties of that shrub which might be made available. Again, what could be more charming as a centre-piece to a bed of low-growing spring flowers than a few vigorous plants of Magnolia halleana? There are some mild districts, no doubt, in Great Britain and Ireland where Magnolia conspicua flowers in the open; and, where that is the case, nothing could be more lovely than a few good plants of this variety layered and pegged down as a permanency in the centre of a flower-bed, to be surrounded with such of the smaller spring fry as may suit the fancy of the designer of harmonies. Surely also in the Prunus, Pyrus and Cerasus tribes there are things which the bedder might use to the advantage of his work. Staphylea colchica might perhaps be tried in some of the late spring combinations. Then what about some of the early-flowering Rhododendrons and hardy Azaleas and the various Andromedas, loveliest of spring shrubs? I used to possess a Rhododendron which produced heads of brilliant crimson flowers in early spring. I believe it was called R. nobleanum. Plants of the smallest size would flower, and a bed of this Rhododendron in early spring might fling the gauntlet even to a battalion of Keizerskroons. The writer of the second prize essay, which to my mind is much more suggestive and more full of matter than that which obtained the first prize, suggests the Witch Hazel as material for spring bedding. No doubt he is right, and the pity is that he did not work along this line more than he has done. Why not Chimonanthus fragrans, for instance, or Jasminum nudiflorum to set off the beauty of the Snowdrop? There is one lovely shrub which I almost dread to mention in this connexion for fear of being laughed out of court as unpractical; but it is such a beautiful thing that I will take my life in my hand and venture. It is Garrya elliptica. To be quite honest, however, I doubt whether it could be easily used for bedding purposes. It certainly could not be left to the tender mercies of the stable-boy. It is, I believe, not easily propagated, and whether it could be brought to stand frequent transplantings like other shrubs I have mentioned I cannot say, because I have never had enough plants to try. But if I were asked what in all the vegetable world would form the best background to flamboyant flowers like Tulips and Anemones, I should say Garrya elliptica.

I am afraid that this article, if it has not risen to the dignity has, at least, reached the length of an essay. I trust it will be noted, however, that I have not been writing about attractive features in spring gardening, for, though I do not object to formal beds in moderation (and "undotted"), I do not regard them as particularly attractive; and it is exclusively with formal bedding that I have concerned myself; because if "'twere done when 'tis done" 'twere just as well that spring bedding were done well; and how can it be done well unless full use is made of all available materials? If I had allowed myself *carte blanche* to deal with "attractive features," goodness knows to what length I might have gone, besides laying myself open (as probably I have done already) to the scorn of all properly orthodox tessellators. There were even a few subjects among ordinary herbaceous things which it seemed to me were unaccountably ignored by the essayists, but these I must pass over.

And now, having purged my bosom of all this "perilous stuff," I shall wait with a quiet and untroubled conscience till the spring renders me up the Keizerskroons which I have dotted about my borders, expecting in the meantime, with a certain assurance, the felicitations of the Editor on the skill with which I have avoided those three words, carpet and dot plant. A. W.

THE FRUIT GARDEN.

GAGE PLUM DENNISTON'S SUPERB.

THIS is one of the best of the early Gage section, and what makes it of much greater value is that is does well in most localities and is a great success in all forms, either as a wall tree or as a pyramid, and though I do not think many varieties of the Plum are suitable as cordons, Denniston's Superb is one that succeeds in this form, so that it is worth attention on that account, as in gardens of somewhat limited size failure of the crop must be seriously considered. Of late years the Plum has made great strides as a pot tree, and one of the very best for pot culture is the variety now under notice. Its earliness is a great gain, and grown as a pot tree it is most valuable, both as an early forcer and for its free-bearing qualities.

The fruit of Denniston's Superb is large, round and of a greenish yellow colour, marked with a few purple thin blotches and dots, and beautifully covered with bloom. It has a rather long stalk inserted in a small cavity. The flesh is yellow, firm, very rich and juicy, and may be termed sweet and having a distinctly vinous flavour. It is a first-rate early variety and equal in flavour to the Green Gage, with a slightly brisker flavour than the last-named. It is usually in season at the middle of August, but grown as a cordon on a west wall in the southern part of the country I have had fine fruits the first week in that month.

This Plum is of American origin, having been raised by Mr. J. Denniston of Albany, New York, and has made itself a name in this country on account of its good qualities. The tree has not a gross habit and is most suitable for amateurs on that account. As many growers know, the old Green Gage, though one of the most favoured of all Plums, is not always satisfactory as a cropper, as it grows gross in some soils and is known under quite two dozen different names (thus showing its popularity); I am sure the one illustrated will be most reliable where the old Green Gage fails.

I have alluded to cordon trees and its value for pot culture, but this variety is most suitable grown as a small bush or pyramid in soils where the Plum succeeds. Only recently I saw some very fine standards of this variety laden with fruit, whereas the trees of the old Gages were nearly barren, and this points out its value grown in the open. As a wall tree it is very fine, and if the fruits are properly thinned they are excellent. A word as to planting in the open. I advise good loam in preference to rich manure, and in soils deficient of lime give a liberal quantity of old fine mortar rubble or broken chalk; in heavy land such additions as wood ashes or burnt refuse well incorporated with the soil are of great advantage. Do not plant too deeply, but so as to allow of surface-dressings later on. G. WYTHES.

FRUIT NOTES.

MOSSES AND LICHENS.—It is extremely common to see the stems and branches of young and

old fruit trees smothered with mosses and lichens, and many people appear to think that these things do not do harm, for they never make an effort to exterminate them. Herein they are wrong, for when the bark is thus enveloped it is impossible for it to do its work properly. Each winter growers should make an attempt to thoroughly cleanse the trunks and branches, and it will be found that after one or two seasons of careful work the bark will shine with the glow of health and cleanliness. On the hard bark it will be found imperative to have recourse to the use of a small triangular scraper, as the brush, no matter how efficiently it may be used, will not do all the work that has to be done. As soon as the scraping is completed, the operator should follow with a dressing of caustic soda, advice upon the making of which will be given in the next paragraph, the bole and accessible branches being dressed with a brush, while the upper portions of the tree are dealt with through a sprayer. It is satisfactory to know that at the same time as one clears away the mosses and lichens one destroys many eggs and insects.

CAUSTIC SODA WASH.—This is indisputably one of the most valuable washes that has ever found its way into the fruit gardens of England, and it is certain that if every fruit grower used it regularly, season after season, we should hear far less than we do of damage from insect pests. It is quite inexpensive, easy to compound and simple to apply, provided that a few essential points are always kept in mind. The first thing to remember is that the wash has decided burning properties, and the operator must, therefore, wear old clothes and boots and a wide-brimmed hat, and must always work from the windward side of the tree, or the spray will be blown back into his face and cause considerable discomfort. Another very important point is to have a sprayer which throws a fine mist-like film of wash, as this will adhere to the small shoots and branches, whereas a coarse application would run straight down the growths and thus the worker's time and material would be largely wasted. For application to the bole a half-worn-out brush is the best tool, as it can be used with some force, and may be readily worked into the nooks and crannies where eggs are likely to be deposited. It is necessary to add to the equipment already specified some old gloves.

For efficacy I have not yet found a compound of soda and potash superior to that advocated by Cousens, and it is his formula that I am about to give here. It comprises 1lb. of commercial caustic soda, three-quarters of a pound of pearlash (crude carbonate of potash), 10oz. of soft soap and 10 gallons of water, and it should be prepared thus: Place the soda in a bucket containing some water and thoroughly stir. As soon as this has been dissolved add the pearlash and stir again, and when this in turn has dissolved add water to make up 10 gallons. This must be stirred very vigorously, and when the amalgamation is perfect add the 10oz. of soap which has been previously dissolved in boiling water. Another thorough stirring and the wash is ready for application; but it is wise to strain that which has to pass through a sprayer, or the instrument may soon become choked up. If desired, this may be applied at a temperature of about 140°.

GREASE BANDS.—For arresting the upward progress of the females of the winter moth into the trees these are invaluable, and should always be used. Unfortunately, it is common to put them on in the autumn and winter and then not give them any further attention, with the natural result that the grease dries and the insects can then travel as comfortably over the band as they can over the bark of the tree. If the bands are to be effectual, it is imperative that the grease shall be kept active through the winter. There are special grease preparations on the market, but it will be found that cart-grease smeared on stout brown paper answers very well.

H. J. W.

THE FLOWER GARDEN.

A ROCK GARDEN IN LINCOLN.

THE rock garden shown in the illustration was made in the year 1904, the stones being the local limestone. The steps are used to connect two terraces at different levels. Those shown face towards the west, so that one side of the rock garden gets plenty of sun. Among the plants are Saxifraga sancta, Tunica Saxifraga, Euphorbia Wulfenii, Daphne Cneorum, Cistus from the Pyrenees, Androsace Chumbyii, Primulas rosea, capitata, farinosa and cashmeriana, Lithospermum prostratum, Genista sagittalis, Œnothera taraxifolia, Veronica Andersonii, Cyclamen Coum, blue Anemone, Hepatica, Polygonum affine, alpine Rose, Giant Thrift, Aster alpinus, Veronica repens and spicata, Oak and Parsley Ferns, Cypripedium Calceolus, various Saxifrages and Sedums, and on the steps a species of Camomile, which, when trodden on, produces a strong scent.

F. H. HUTTON.

A CORNER OF A ROCK GARDEN IN LINCOLN.

THE SCILLAS.

(*Continued from Vol. LXXII., page 635.*)

SCILLA FESTALIS (the common Bluebell) has white, rose and pink varieties. The bulbs should be planted deeply when establishing a colony. A depth of 8 inches may be accepted as the deepest one can plant with success; the spikes are much finer and the yield of flowers and seeds is greater than when barely covered, as one finds the bulbs in a natural state. One should always plant before the autumn rains occur.

S. hyacinthoides is a magnificent Squill of vigorous growth resembling S. peruviana in its leafage, and producing long spikes of flowers 2 feet high, the bells of which are contracted at the middle, very large and coloured a rich gentian blue. It is a fine plant for border cultivation, and it may be naturalised in exceedingly good soils.

S. natalensis is a pale, yellow-flowered, strong-growing species, closely resembling S. peruviana; it has a spreading pyramidal head, the lower flowers with long pedicels, so that the inflorescence appears flat with a cone-like centre. The colouring varies from cream to a soft straw yellow. A rare Scilla, unfortunately too tender for outdoor culture save in very warm counties. It flowers with S. peruviana in early June.

S. patula (the nodding Squill) resembles our Bluebell, but the flowers appear to be tasselled owing to the drooping cluster of buds above the open blooms; the bells are lilac or lavender and the segments are lined with blue. Rosy-tinted forms occur frequently, but they lack the soft, refined colour shades of the type. S. patula is an excellent border plant, quite easy to grow and one of the best Squills for naturalising in sunny places where the soil is good. The flowers expand to the fullest extent, and they can hardly be called campanulate but saucer-shaped.

S. peruviana, a well-known Scilla of pyramidal outline, is considered too tender for outdoor culture, but if planted 6 inches deep it will survive most winters. It makes considerable leaf-growth in autumn and is often badly checked by frosts, but it generally manages to survive and flowers freely. The spikes appear in early summer and are blue, but vary in tint from a "washed-out" pale blue to a darker and more vivid colouring. The spikes often exceed 6 inches across; the flowers are narrow-petalled and starry. Alba is a more refined form, and it looks at its best when intermingled with the type. This Squill rests only for a few weeks and early planting is necessary—July and August are the best months, but November planting is also successful, as the bulbs make a second "ring" of roots in that month.

S. pratensis is a starry-flowered plant of the italica type, but the inflorescence is larger and more freely produced when the bulbs are fairly established, while the colouring is a really good blue.

S. sibirica (the well-known Siberian Squill) is one of the showiest of the spring-flowering group. The flowers are in short, slender spikes, of which several are produced, and they are widely bell-shaped or nearly flat. The appearance of the growths above ground is interesting to watch. The leaves are hooded at the tips, and the flowers do not appear in complete spikes, but tumble out of their prison of leaves one at a time. The

greatest use for the Siberian Squill is in the rock garden and for naturalising on grassy slopes. Alba is a charming little bulb of garden origin, a pure white, but not quite so hardy and long-lived as the type, while lilacina is lavender tinted. These Squills are charming flowers in pans for the alpine house or for the decoration of apartments in spring. September and October are the best months for planting.

S. verna is a neat rockery plant, pretty in the mass, but too small for general use. The flowers are starry, deep lilac or blue-purple in colour; the effect in the mass is that of blue with a sheen of rosy lilac. There are other species, but the foregoing represent the best of those that are worth growing. M.

THE CRIMEAN SNOWDROP.

(GALANTHUS PLICATUS.)

WITH the approach of the opening year we are all agog for the first Snowdrops of the time. They are ever welcome, with their slender stems and their elegant eardrop flowers hanging so gracefully from their slender pedicels, and waving to and fro with every breeze of the early days or tossing wildly as they are shaken by the gales of winter.

Of the numerous species which are now to be met with, the Crimean Snowdrop always commands interest and appreciation. It is a bold plant in its best forms, with a larger bulb than that of our own common Snowdrop (Galanthus nivalis) and having a taller stem and leaves, which are eventually about 1 foot in length. These leaves have a character of their own, derived from the reduplication or folding back of the margins, a feature which distinguishes the species and its hybrids. The flowers are not so large in size as one would anticipate from the leaves and stems, but a good form of this Snowdrop is handsome in every way, and is sure to be favoured by admirers of this simple hardy flower.

One of the finest varieties I have met with is that called Fraseri, which was found among others in the garden of the late Mr. Patrick Neill Fraser of Rockville, Murrayfield, Edinburgh, for a number of years treasurer of the Royal Caledonian Horticultural Society. Another is called Chapelii, from the place where it was found, at Chapel, Berwickshire. Several other forms have been found or selected from seedlings, and a considerable number of hybrids have been raised between this and other Snowdrops. The late Mr. William Thomson of High Blantyre, Lanarkshire, raised some good varieties, and Mr. W. B. Boyd of Faldonside, Melrose, and the late Mr. James Allen of Shepton Mallet have done much good work with this Galanthus and its hybrids. It also appears to be one of the parents of the natural hybrid Galanthus byzantinus and of a somewhat similar Snowdrop which occurs near Broussa in Bithynia.

The Crimean Snowdrop appears to enjoy the same conditions as our common one, but it is liable to die off without apparent cause, while it is as subject to the evil effects of the fungoid disease which attacks Snowdrops as any other species. S. ARNOTT.

THE ROSE GARDEN.

THE CLASSIFICATION OF PERPETUAL-FLOWERING ROSES.

A SUGGESTION.

IN the early years of English history the people of this realm were classified nominally in three divisions, British, Anglo-Saxons and Normans, since their racial characteristics were recognisable. But as time advanced these distinctions became more and more confused—intermarriage had practically obliterated them—until at last that which for some time had been patent to all became an accomplished fact, and the three races were merged in one, the English people. May there not be something analogous to this in the development of the modern perpetual-flowering Rose, in the process by which it has undergone a change; and is it not conceivable, and perhaps desirable, that the National Rose Society should seriously consider the advisability of drafting a new classification of this Rose? Let us review the situation.

From 1830 to 1880, speaking broadly, the modern perpetual-flowering hybrids could be and were grouped in three main divisions, viz., those which had for their original parent either (1) R. damascena, (2) R. indica odorata, or (3) R. bourboniana. In other words, they could be readily classified under one of these three divisions, the Hybrid Perpetual, the Tea-scented and the Bourbon Rose. Within the last ten or fifteen years, however, the Hybrid Tea has made giant strides; it has become the predominant class, and, like some powerful nation in its dealing with petty states, has been reaching out and absorbing in itself all the best characteristics of the Hybrid Perpetual, the Tea-scented and the Bourbon. The old distinctions are rapidly becoming obliterated, and, although the old classification of fifty years ago exists on paper and in theory, it is non-existent in practice.

For example, can any rosarian give a reason why Hugh Dickson, Frau Karl Druschki and M. H. Walsh are classified as Hybrid Perpetuals? A characteristic of the true Hybrid Perpetual is to have one crop of good flowers, to be followed on the midsummer growth with a few blooms of decidedly inferior quality, mere echoes of the first. The plants ripened early, and by the middle of September the blooming season was over. Can this be said of the three varieties above mentioned? And, again, take Maman Cochet, White Maman Cochet and Mrs. Edward Mawley. What grounds are there for determining that these belong to the Tea-scented class? If perfume be the chief factor, then there should surely be included some Hybrid Teas in preference, and these three would with difficulty survive the test. In addition to its delicious fragrance the Tea-scented Rose—the race of Dijon Teas apart—is moderate in growth and more or less tender. Is this a feature of these three varieties? Notice also the confusion that arises in the classification of novelties. Who is to decide the point — the raiser, who ought to be credited with some knowledge of the pedigree of a given Rose, the growers after distribution, or the judges of new seedlings? Take a case in point: Harry Kirk has always been described by the raiser as a Tea; the National Rose Society in its Rose Annual agrees with the raiser; and yet in the catalogues issued by several of the leading trade growers this Rose is placed among the Hybrid Teas. Would an exhibit of twelve exhibition Teas be disqualified if it contained a flower of Harry Kirk?

We know, also, that the raiser himself is sometimes in doubt as to the classification of a seedling. If my memory serves me correctly, Bessie Brown first made its appearance in public in the Tea class, and the late Dean Hole at the time called my attention to it. The raiser subsequently sent it out as a Hybrid Tea. And further, there is trouble ahead with some forthcoming novelties. Raisers, to their credit be it said, are striving after more yellow Roses; the yellow in a Rose is derived from one of the original progenitors of the Tea-scented Rose, and this colour in a Rose indicates its affinity. But we are informed the Rose-growers in the States regard with suspicion as to its hardiness in their climate any novelty distributed as a Tea. If this is so, then may we not expect that raisers with an eye to the American trade will send out as Hybrid Teas Roses yellow tinted and even possessing a Tea perfume? But one need not labour the point; the confusion of classification at present existing is apparent to all, however much we may shut our eyes to it. The question is, Can anything be done?

RHODODENDRON WHITE LADY GROWN FROM SEED SENT TO ENGLAND FROM SIKKIM BY SIR JOSEPH HOOKER NEARLY SIXTY YEARS AGO.

It is hard, one realises, to part with old landmarks, to relinquish time-honoured customs, to obliterate ancient distinctions; but progress often demands a sacrifice, and such a demand must be faced when existing distinctions are artificial or unreal. Now as to the remedy. The first step should be to abolish present definitions and amalgamate the three classes of Hybrid Perpetual, Tea-scented and Hybrid Tea; classes for Chinas, Dwarf Polyanthas and the like may well remain as they are. The next step should be reconstructive, the classification being such as would indicate the general usefulness of the Rose. We might arrange them under such heads, for example, as (1) Specimen Roses, meaning thereby Roses whose value lies principally in the beauty of the individual flower as staged for exhibition. (2) Decorative Roses.—Roses not necessarily free-flowering, but rather such as lend themselves as cut blooms for the decoration of the house. (3) Garden Roses.—Those which, from their freedom in flowering and their branching habit, are suitable for growing in the garden. (4) Bedding Roses.—Roses suitable for bedding and massing, compact and dwarf in habit and free-flowering, irrespective of individual form.

As to the mode in which these four classes should be brought before the public at exhibitions, in the first and second divisions, where the quality of the flower is the first consideration, the Roses should be staged in exhibition boxes, and would supersede the existing classes of general exhibition Roses and Teas, those falling within the third and fourth divisions being shown in vases. To catalogue the Roses under these four heads does not imply that they are suitable only for these specified purposes, but rather that in these respects is to be found their principal feature.

But these are merely suggestions. When the present position of affairs is realised, and the step to be taken agreed upon, it will be for experts to solve the problem of a new classification of perpetual-flowering Roses. JOSEPH H. PEMBERTON.

ROSE MARK TWAIN.

THIS Rose, which comes from America, is of the Mrs. W. J. Grant type; in fact, at one time I thought it too much like that sort to warrant its introduction under another name. But I have watched it for some time and there is certainly a distinction. Its blooms are formed with quite a pointed centre, and the edges of the petals are white. In some of the petals there is a whitish suffusion, which is very beautiful. The main colour resembles Mrs. W. J. Grant, perhaps not quite so clear. P.

A YELLOW-FLOWERED MONTHLY ROSE.

THERE is a pretty little Rose named Arethusa, which is rapidly gaining in favour, for it is the only yellow Rose we have among the Chinas or Monthlies. Its neat sulphur yellow blooms are very freely produced upon a plant quite as vigorous as some of the freest-growing Tea Roses. It is really a valuable addition to a very interesting tribe, which has been much beautified of late years with such lovely sorts as Comtesse de Cayla, Aurore, Baronne Piston de St. Cyr, Charlotte Klemm, &c. The variety Arethusa was raised by Messrs. William Paul and Son of Waltham Cross. P.

TREES AND SHRUBS.

A SEEDLING RHODODENDRON.

(RAISED FROM SEED SENT HOME FROM SIKKIM BY SIR JOSEPH HOOKER.)

THE illustration of Rhododendron White Lady on page 18 is from a photograph kindly sent to us by Miss E. Ricketts, Foulis Court, Eastleigh, and is of especial interest owing to the fact that it was one of several raised from seeds that were sent home from Sikkim by Sir Joseph Hooker in the early forties of the last century. It was, however, grafted on to another stock. As the plant has become too large for an ordinary greenhouse, it has been presented to the Royal Horticultural Society and now finds a home in one of the houses at Wisley.

THE WISTARIA.

WISTARIA time is one of the most pleasant seasons of the year. A few noble examples may be seen in the suburbs of London, especially at Kew, where the trees must be a great age, while quite a fine plant is in the Royal Gardens, Kew, also. What may be achieved with this plant if some attention to its needs were forthcoming is not clear, for most of the Wistarias we see from time to time shift for themselves, and by the position they occupy must have large numbers of their roots in dusty, dry soil. In former days it was always the custom to plant this fine climber at the base of the dwelling-house wall, but now, with a fuller knowledge of its robust growth, its widely extending branches, and equally its wide-rooting capacity, other positions may with advantage be secured for it. One example may be seen at Kew, where a fine plant covers a huge cage-like structure. Another good way would be to plant it to run over pergolas, such as is seen in the illustration, and with Clematis to succeed the Wistaria the effect would be distinctly good.

A BEAUTIFUL AUTUMN-FLOWERING TREE.

(SOPHORA JAPONICA.)

THERE are few trees flowering during the months of July and August, and fewer still brighten the September days. However, Sophora japonica, or Stypnolobium japonicum, as it is sometimes called, is included among these few, and on that account should be extensively grown even were it far less beautiful than it really is. The Sophora forms a well-shaped bushy tree 30 feet to 40 feet high, and of similar dimensions in thickness. It has light green leaves, which give it an attractive appearance even when it is not in bloom. The Pea-shaped flowers, which are produced in panicles 9 inches long, are quite small, being no more than half an inch across. They are, however, produced in such abundance that their diminutive size is no disadvantage. L. G.

A PERGOLA COVERED WITH WISTARIA IN A CORNISH GARDEN.

COTONEASTER ROTUNDIFOLIA.

THIS Himalayan species is a particularly ornamental one throughout the greater part of the winter, for it fruits well and the berries usually last until the spring months. Curiously, birds do not interfere with the berries of this species while other food is obtainable, but the fruit of some species of Cotoneaster is cleared off as soon as it is ripe. C. rotundifolia grows 3 feet to 4 feet high and forms a spreading bush many feet across. The main branches are well furnished with secondary branchlets, though it is not such a dense-growing plant as some of the others. The flowers are white and are borne during May. The fruits are red when ripe. D.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FRUIT GARDEN.—The pruning of Apples, Pears, Currants and other hardy fruits must be pushed on now as rapidly as possible, as plenty of other work will soon be cropping up in all departments. Where large branches have to be removed, take care to smooth the cut over with a very sharp knife and then paint the wound with coal-tar; this will keep wet and also fungoid pests out. It is also essential that the branch be cut off as close to its base as possible; snags must not be left, as apart from being unsightly the wounds on these do not heal properly. With young, one year old lateral or side growths, this latter statement does not apply, as these are frequently needed to form spurs, and to induce them to do this the shoots are cut so as to leave a piece of sufficient length to possess three or four good buds. The leading shoots of young trees, *i.e.*, those which will eventually form the main branches, should only be cut back sufficiently to get well into plump wood. Always cut close to the topmost bud that is left, and this bud must be chosen so as to point in the direction that the subsequent growth is intended to go.

Vegetable Garden.—It is time now to make a sowing of Onions under glass where exhibition bulbs are desired. Use a box about 3 inches deep for the purpose, and this should have several good-sized holes in the bottom so that superfluous water can escape. Over these place an inch thick layer of crocks, then a little rough soil, and then fill up with the finely-sifted compost, which should consist of good loam one part and leaf-mould and sharp sand half a part each. Make this moderately firm and scatter the seeds thinly over the surface, covering them with a quarter of an inch layer of fine soil and water with a fine-rosed can. Stand the box in a warm greenhouse or frame, and as soon as the seedlings appear keep them near the glass. When they are about 3 inches high, each must be potted singly into 2½-inch pots, kept in a close atmosphere until established and then gradually inured to more air and so hardened ready for planting out in April.

Greenhouse.—The present is a good time to insert cuttings of the now popular perpetual-flowering Carnations. Select young side growths about 3 inches long and slip them off with a heel, which may need smoothing over a little with a keen-edged knife if ragged. Well drain a number of 5-inch pots, and fill these with clean silver sand and make it firm. Into this, and close to the sides of the pot, four or five cuttings may be planted, making holes 1½ inches deep with a blunt stick and taking care that the base of each cutting rests on the sand at the bottom of the hole. Make the sand firm round the base of each cutting, water in, and then plunge the pots in some Cocoanut fibre refuse where a bottom temperature of about 50° can be maintained. Treated thus the cuttings will quickly root, when they may be potted off singly into small pots.

1.—AN OLD CHRYSANTHEMUM PLANT OR "STOOL" WHICH HAS BEEN CUT DOWN AFTER FLOWERING. CUTTINGS CAN BE MADE FROM THE NEW GROWTHS SHOWN.

Plants in Rooms.—Special care will be needed at this period to maintain these in good health, as the temperature will usually be low and the atmosphere of the rooms none too good owing to the amount of gas that is consumed. Any plants that are not quite hardy, and which are standing in rooms where fires are seldom made, should at least be placed in warmer quarters every night, and during very cold weather they must remain in the warmer temperature during the daytime also. Keep all foliage thoroughly clean, only give water when the soil is really dry, and then use that which has been slightly warmed. Do not on any account repot the general run of room or window plants now.

Flower Garden.—Little can be done here except to push on any digging or trenching not completed. During very severe frosts protect newly-planted Roses and other shrubs with some light material. After frosts it is wise to look over newly-planted subjects, as these frequently get loosened owing to the expansion of the water in the soil; in such cases the latter must be promptly made firm around their roots.

Cold Frames.—Continue to remove any decayed foliage from the plants standing in these, and give plenty of air whenever the weather is fine and the temperature a few degrees above freezing point. A layer of long manure, spent tan or Cocoanut fibre refuse banked well round the sides of these frames will do much to keep the cold out during the severe weather we may now expect. H.

PROPAGATION OF CHRYSANTHEMUMS BY CUTTINGS.

THERE is no better period for propagating the Chrysanthemum than during the month of January. There should always be a lapse of time—a week or two at least—between the close of the flowering period and the date of recommencing operations for another year. By these means opportunity is afforded the plants of getting back in a good state of health, which is very necessary when they have been fed with strong manures to assist in developing big blooms. Many of the plants, too, have got into a somewhat debilitated condition, due largely to the artificial conditions in which they have been growing for some months past. How to proceed with the work is, of course, the beginner's first concern. It may be that the plants have not been cut down since they have finished flowering. Should this be so, proceed at once to deal with them. Cut the stems of the old plants down to within 4 inches or 6 inches of their base. This is the rule with plants that show a disposition to break freely into fresh growth at their bases. There are instances, however, where the plants are less disposed to do this, and for this reason cuttings have to be procured from the old stem. A rather longer portion of the old stem, say, 1 foot to 18 inches, should be retained in such cases.

Plants, when cut down, should be as seen in Fig. 1. Here will be noticed the vigorous new growths. Such cut-back plants should be accorded a position on the greenhouse bench, or, better still, on shelves near to the glass. A light and airy position in a cool greenhouse or conservatory is best suited to them in the dull months of the year.

There may be a doubt in some minds as to what are the proper cuttings to procure for these old stools, as they are generally termed. Cuttings differ in their character, and there are bad cuttings as well as good ones. To simplify this matter Fig. 2 should serve a useful purpose. Here are portrayed two examples of bad cuttings, because of the small flower-buds at their apices. Cuttings of this description never grow away freely. Instead of making growth they endeavour to develop their flower-buds, in consequence of which fact it is next to impossible to make useful plants. In Fig. 3 are three cuttings without these flower-buds and prepared ready for insertion. Note how the lower leaves have been removed. Were these retained they would very soon flag and

2.—TWO EXAMPLES OF BAD CUTTINGS. NOTE THE SMALL FLOWER-BUDS IN THE APEX OF EACH.

decay, causing the cutting to fail. For this reason they are trimmed off with a sharp knife close to the stem of the cutting itself. Further, the stem of the cutting is cut straight through immediately below a joint. A joint is that portion of the stem of the cutting where the leaf-stalk adheres to it, from which it derives its sustenance. Cuttings should be about 3 inches in length, more or less, and should be growths of recent development, free from buds at their apices. The best cuttings are usually procured at some little distance from the portion of the old stem that was retained when the plant was cut down. They push their way through the surface soil. More often, however, the cuttings have to be taken from the immediate base of the old plant.

Boxes some 3 inches or less in depth answer the purpose of propagation very well. We prefer rather more shallow boxes, say, those 2 inches deep, as there is always a tendency for the compost to become soured until roots are working through it. Pots may also be used advantageously. Those 3 inches or 5 inches in diameter answer very well, and a number of cuttings may be inserted around the edge of these. Suitable compost for raising Chrysanthemums from cuttings is not difficult to procure. Loam of a fibrous nature is an essential factor, and of this there should be taken two parts and of leaf-mould and coarse silver sand each one part. Pass these ingredients through

3.—GOOD SHOOTS MADE INTO CUTTINGS READY FOR INSERTION. NOTE THAT THE LOWER LEAVES HAVE BEEN REMOVED.

a sieve with a half-inch mesh, and then give the heap a thorough mixing. Prepare the compost a few days before it is actually required, and turn the heap over each day in the interval.

Crock the pots and boxes with care, placing a good layer of potsherds in the bottom of each receptacle that good and efficient drainage may be ensured. Cover the crocks with some of the rougher siftings of the compost, and proceed then to fill in the compost to the rim of the pots or boxes. Carefully level and subsequently place a layer of silver sand on the surface soil. Insert the cuttings in boxes in rows, starting first with a label giving the name of the variety being dealt with. About 1½ inches deep, 2 inches or rather less apart, and 2 inches between the rows will answer very well. Use a small dibber about the size and substance of a Cedar-wood pencil, making holes with this. Silver sand will be carried into the bottom of each hole by these means, and on this the base of the cutting must rest. This is very important. Also press the soil firmly at the base of each cutting, so that it does not "hang" suspended. This is important with cuttings inserted in boxes as illustrated in Fig. 4. Observe the same rule when pots are used. Water in with clean water from a fine-rosed can, and after leaving the boxes, &c., for a time to drain, place them on the greenhouse bench in a temperature of from 45° to 50°. Small frames or large boxes to answer the same purpose, the latter covered with sheets of glass, make excellent propagating apparatus so long as too close conditions do not prevail; the cuttings should be rooted within a month or so. Remove decaying foliage from time to time and keep the soil just moist. Cold frames may be used, but adequate protection in severe weather must be provided. Boxes in spare rooms or windows in a warm aspect may be utilised for propagating the Chrysanthemum very successfully.

As soon as rooted, give the plants a cool and airy position in the greenhouse, and subsequently place them in the cold frame outdoors to be potted up as they demand more root room.

THE TREATMENT OF WINDOW PLANTS.

WINDOW plants require very careful treatment during the winter season. Fine specimens, the result of good cultivation in the summer, may soon be spoiled by overwatering, feeding with strong liquid manure at a time when the roots are not very active, and undue exposure to a frosty air.

Fuchsias grown in greenhouses are generally rested, that is, kept dry at the roots in the winter; but when these plants are treated as window specimens they are rarely rested, but kept growing throughout the winter season. They may be so treated, but very great care should be taken in the matter of watering.

Zonal Pelargoniums.—Old specimens are more easily wintered in good condition than young ones, simply because the wood of the former is harder and the pots fuller of roots. These plants are very impatient of much watering, and it is safer to keep them rather dry than too moist; but when water is needed sufficient should be given to saturate the whole of the soil in the pot—surface sprinklings are harmful. Furthermore, the plants should not be watered and the pots left afterwards in the saucers which are filled with the surplus water. Empty the saucers immediately. If they contain water constantly the soil in the lower part of the pot soon becomes sour, and the roots of the plants in that portion of the soil perish.

Pruning and Repotting.—The longest stems on Zonal Pelargoniums may be cut back in February and inserted as cuttings in a sandy compost in small pots. Fuchsias may be cut back similarly, but the shoots of the harder wood will not do for making into cuttings. When the old plants commence to break into new growth they should be potted. The seared fronds of Ferns should be cut off, not pulled out, and when young fronds show repot those plants that require it towards the end of February.

HOW TO PRUNE VINES.

ALL Grape Vines should be finally pruned either just before Christmas or early in January. I say the final pruning should be done, as it is always advisable to partially cut back the shoots in the autumn—about the end of October—to admit more light and air to the remaining portion to ripen it thoroughly.

The whole of each Vine should be pruned at one time, that is, on the same day; then the buds will break into new growth in a regular manner.

Prune back to two eyes; this is the safest plan for a beginner, as afterwards the best new resultant shoot can be retained and the weakest one rubbed off while quite young. A thin, pointed bud either does not contain an embryo bunch of Grapes or a very small one. A plump bud near the base of the shoot mostly contains an embryo bunch which will, in due course, develop into a fine cluster of fruit.

A rounded bud several inches from the base of the branch generally produces a large, loosely-shaped bunch of Grapes.

Use a sharp knife when pruning the Vines, and be careful not to cut off the branch too close to the bud or "eye." On quite young Vines the current year's growth of the leader should be left 18 inches long, the end portion beyond being cut off.

AVON.

4.—CUTTINGS INSERTED IN ROWS IN A BOX.

THE TOWN GARDEN.

NEW LAWNS.—Undoubtedly the autumn is the best time for laying down turves, but it is not always convenient to do the work then, and every effort should be made to get it done now without delay. Of course, in towns it is not possible to procure turf of any kind as easily as in the country, but the best turf should be used, as it would be very unwise to lay down that which is unsuitable. I inspected some turf quite recently that was being used for the making of new lawns and the facing of banks, and presumably it was regarded as grass turf, but it resembled rolls of moss more than anything else. The first hot spell of weather would burn up the moss and then a bare lawn and a bare bank would result and—disappointment. Owners of town gardens who intend to lay down new turf should first inspect a few turves and then insist upon having all as good as the sample. A good turve should be cut about 1½ inches thick, possess plenty of fibre—that is, it should be tough—and the grass must be of fine growth, not coarse, and close. Many blades of grass are better than a few only. There should not be any moss in the turves. I recently inspected some lawns in a large town; the weather was very hot and had been so for a long period, but the grass was beautifully green. Surrounding these lawns the shrubs, trees and hedges were covered with soot from factory chimneys. If properly managed lovely lawns may be obtained in any town. The ground must be deeply dug and all roots of shrubs, trees and other kinds of plants extracted where they are found, also roots of weeds. Clean ground free from such roots does not require to be deeply dug. If poor in quality some well-rotted manure should be put in at the time of digging. The soil must be levelled and allowed to settle down somewhat before turves are laid.

HOW TO COVER UGLY WALLS.—These are mostly to be found on the north, north-east and north-west of garden enclosures, and when only a few stunted stems of climbing plants are left on them their appearance is the reverse of beautiful. Such walls can, however, be made objects of beauty. In the first place the soil near them should be attended to; trench it and put in some manure, then a number of suitable plants, of which the following is a choice selection: Bridgesia spicata, a dense, vigorous evergreen climber, very hardy and covers a wall as quickly as Ivy; Ceanothus divaricatus, Cotoneaster microphylla, Cratægus Pyracantha (the Fire Thorn), Cydonia japonica (Japanese Quince), which bears scarlet flowers, and the white-flowered variety, C. japonica alba, forms a beautiful contrast. In addition to the above, Honeysuckles, Jasminum officinalis (white flowered) J. nudiflorum (yellow flowers, produced in winter) and Ampelopsis in variety may be planted. All of these may be termed permanent climbers, and there are various kinds of annual climbers which can easily be raised from seeds sown in pots in spring-time. Small, well-shaped specimens are the best to plant; they are not costly and soon furnish a wall from the base upwards.

THE HERBACEOUS BORDER.—Herbaceous plants are very valuable for town gardens. The flowers are most beautiful, the plants withstanding hard treatment and giving splendid returns from good culture. From a nice collection of plants flowers may be had during nine months out of the twelve. Old clumps should now be lifted and divided, the soil dug, enriched with manure and the different portions of the clumps replanted. Too often an attempt is made to grow both these border plants and shrubs in the same border indiscriminately, and failure in such circumstances is sure to result. Both kinds of plants may be grown in the same border, but each must have its allotted position. The shrubs should occupy the back part of the border and the herbaceous subjects the front.

AVON.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

SOME of the operations which may be pushed forward in this department of the garden in mild, open weather are making new beds, altering and levelling lawns and top-dressing the same with fine soil and decayed manure. Good dressings with soot, wood ashes, bone-meal or Clay's Fertilizer will greatly assist the growth and colour of the grass during the coming summer.

Bedding Plants.—Examine all of these required for the coming season, and where deficiencies are likely to occur preparations should be made to meet the requirements, either by means of cuttings or seeds.

Sweet Peas.—If not already sown in the open, a quantity may be put in small pots and gently forwarded under glass. The pots should be given a position near the glass and the seedlings not unduly forced.

HARDY FRUITS.

Although November is the best month to plant, root-prune, and take up bodily trees which may be making too coarse growth, the operation can be successfully carried on till the month of March. In the case of fruit planting, every care should be taken in the selection of suitable varieties to meet the demand. Those of good quality and productiveness, that will maintain a long, unbroken supply, should be obtained from a reliable firm, nothing being more annoying than after waiting a few years to find they are not true to name.

Apples.—A few good varieties will be found in the following: Dessert—Red Quarrenden, Irish Peach, James Grieve, Kerry Pippin, Worcester Pearmain, King of the Pippins, Egremont Russet, Ribston Pippin, Cox's Orange Pippin, Allington Pippin, Lord Burghley, Duke of Devonshire and Scarlet Nonpareil. Kitchen varieties — Lord Derby, Ecklinville Seedling, Golden Noble, Warner's King, Lane's Prince Albert, Wellington, Newton Wonder, Winter Greening and Bramley's Seedling. All of these will succeed either as standard or bush trees.

Bush trees to be profitable should not be too crowded; if by the sides of walks they might be set out at 12 feet to 14 feet apart, so that each tree may grow into good shape and receive ample air and light to encourage sturdy, fruitful wood.

VEGETABLE GARDEN.

No time should be lost in going carefully over the seed saved and preparing the order for the coming season's supply. Beginners ought to be somewhat careful not to order recklessly.

Trenching and digging deeply all vacant plots must be pushed forward on all favourable occasions. Turning up the soil deeply, with plenty of good manure added, will assist the plants greatly in very dry weather. It will be a great assistance to any gardener, with many other matters of importance on his mind, to have a fixed rotation for the principal crops on the different quarters into which the majority of kitchen gardens are divided, and prepare the land accordingly.

Asparagus.—These roots should be taken up in sufficient quantities to meet the demand. They readily force in a temperature of 55° to 60° if placed on properly-prepared beds with a bottom-heat of 70° to 80°. The roots can be placed thickly side by side and covered up with a little soil or leaf-mould. The Grass ought to be ready in three weeks.

H. MARKHAM.
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Wrotham Park, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

FRUIT-FORCING DEPARTMENT.

VINES started in November will now have growths visible. If the points of the rods were depressed, to ensure an even break throughout their lengths, these may now be tied in their places, and in such a manner that fully 18 inches of space remains between them and the roof glass. Disbudding may be commenced whenever a few leaves unfold; if done earlier bleeding and its ill results are likely to ensue. The mild weather has favoured forcing, and the approved temperatures have been easily maintained without the need of excessive fire-heat. From now onwards until the bunches show and prepare to spread a night temperature of 60° is ample. A substantial rise throughout the day, by sun-heat if possible, should be encouraged. On bright days a light dewing overhead with tepid water will assist growth and stimulate backward buds, while the damping of pathways and borders must be regulated by outside atmospheric influences.

Strawberries.—To have ripe fruit early in March the flower-trusses should now be showing, and previous to blooms opening the plants may with advantage be rearranged, placing the earliest where sun, light and air are most readily obtainable. Mildew attacks are more prevalent in some places than in others, and if past experience prompts preventive measures being taken, the foliage may be lightly sprayed and afterwards dusted with flowers of sulphur, more especially on the under-side. At the same time any surface-dressing or washing of pots considered necessary should be carried out. As flowers open a soft brush passed from one to the other will distribute the pollen and thus ensure fertilisation. In the majority of gardens the first ripe Strawberries are expected probably at Easter, and owing to its lateness this year the accomplishment of this will not be difficult. The present is a good time to make a selection of the most promising plants from the plunge-bed, and after close examination for slugs or worms in the soil, should these have obtained ingress, place them in gentle warmth.

FORCING VEGETABLES.

To keep up the supply of forced produce inaugurated at Christmas or earlier requires close and frequent attention. Seakale, Rhubarb and Chicory will from this time onward grow fast enough in the Mushroom house, to which fresh supplies of roots should be introduced every fortnight. A regular succession in the supply of produce is of much importance, and this is more likely to be maintained when moderate temperatures are employed. A few boxes of Mint and Tarragon roots will provide supplies for a long time if not subjected to excessive heat, which causes a spindling growth. Unlike most plants, it will be found, when lifting the former from the open, if the long, slender roots are separated and then placed in boxes and covered with 2 inches of soil, that growth is more speedy and stronger than would be the case from clumps.

HARDY FRUIT.

Pruning of all kinds of fruit trees and bushes, with the exception of Peaches, Nectarines and Figs, should be forwarded whenever the weather permits. Gooseberries are often attacked by sparrows and most of the buds destroyed. To prevent this the bushes after pruning may be dusted with powdered lime when damp; or, if preferred, the same made into a thin wash to which soft soap or a little paraffin is added and applied with a syringe on a dry day has a still more lasting effect. Where it is deemed necessary to protect Fig trees from frost, branches of Spruce, Douglas Fir or other evergreen should be obtained and held in readiness. So long as mildness prevails the trees are best exposed.

JAMES DAY.
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ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Information about Lilies (*Miss Denison*).—The only group of Lilies which in growth and habit resembles Lilium croceum is L. umbellatum, also known as L. davuricum. This group contains no variety with scarlet flowers, however, and the nearest approach thereto is a variety called L. u. incomparabile, the flowers of which are dark red. The varieties of this group grow about 2 feet high, are very sturdy and erect in habit, the plants flowering in June and July. The flowers are erect as in the orange Lily (L. croceum).

Herbaceous border (*Antoine M. Stam*).—It is usual in England to employ only plants of a perennial character in a herbaceous border, whereas in the mixed border perennials, annuals, and biennials are used frequently in conjunction with such tender perennials as Dahlias, Salvias and other things. The herbaceous border of the past has been regarded as of a more or less permanent adjunct to the garden, whereas the mixed border by the very nature of its contents must, in the main, be arranged afresh each year. In England there is no limit as to the variety of things that may be employed, the majority favouring a free use of the more showy or useful subjects of distinct colour shades, and arranging these in irregular groups of from 2 feet to 6 feet across.

Plants for a bed (*A. R. L.*).—In the bed facing west you might plant Roses, Carnations, Lilies and Daffodils in variety. Of Roses, use Caroline Testout, La France, Mrs. Grant, Frau Karl Druschki, Richmond, Hon. Edith Gifford and Viscountess Folkestone; of Carnations, Old Clove, Duchess of Fife, Miss Audrey Campbell, Mrs. Nicholson and Queen of Bedders; and of Lilies, umbellatum vars., croceum, testaceum, tigrinum in variety and speciosum rubrum. You could, if you have room—for you do not say the size of the bed—plant a variety of Narcissus also, including such sorts as Emperor, Empress, Golden Spur, ornatus and Sir Watkin. In the dry border under the fruit trees you will find Flag Irises in variety, Megasea cordifolia purpurea, Muscaria conicum, the Spanish bulbous Irises and Lilium candidum very much at home, and by deep digging of the soil and cutting away all tree-roots within a few feet of the trees the above-named plants would do quite well.

Plants for tank (*Lancaster*).—We think your best plan will be to use free-growing subjects that would drape and hide the formal margin. Such things as Thymus lanuginosus, Mossy Saxifrages, Sedums of sorts, Campanula pumila alba, C. muralis, C. pulla, C. garganica, Erinus, any of the Aubrietias and the hardy, free-growing alpine Phloxes would do well and require but a small amount of soil. By inserting tiny bits of plants freely among the stones, the young plants would presently take care of themselves.

Lilium giganteum failing (*E. M. Inglis*).—The failure is entirely due to making a start with the wrong material, viz., bulbs of too large a size. In the majority of instances Lily bulbs of large, or even the largest, size are desirable and, indeed, much sought after; but in this particular instance it is a mistake and one calculated to give a good deal of disappointment. You have obviously

planted flowering bulbs, believing, as many do, that they are the best. As a matter of fact, Lilium giganteum should be planted when about half grown, or, say, three years old from the seed. The bulb usually takes from six to eight years before reaching the flowering stage, and the bulb never blossoms but once and then perishes, giving off a few offsets and plenty of seeds to perpetuate its kind. The object of planting half-grown bulbs is that they may become fully established by the time the flowering stage is reached, and then you may expect, and possibly get, a giant flowering stem of 7 feet or 8 feet high. The big flower-stem you refer to at 3 feet high was all the bulb contained, and had you examined the base you would have found that not a new root had been produced since the planting was done. Of the smaller bulbs quite double the number could be planted, and if you inserted a few each year up to the flowering of the first-planted lot there is no reason why you should not have a good display of flowers each year.

TREES AND SHRUBS.

Wistaria with bare branches (*Vaynor, Berriew*).—Your Wistaria branches are bare through neglect of pruning in years past. If you can manage it, try and train up a young branch or two here and there among the old ones, and as the former grow remove the worn-out pieces. It is doubtful whether you will get the branches to break out again if you cut them back into the old wood; you may, however, encourage growth by removing the Jasmine which is encroaching on it and giving the plant some manure and new soil. If you can obtain young branches, shorten the side growths in each year, so as to form spurs.

Larches diseased (*Mrs. Craig*).—Your Larches appear to be attacked by a fungoid disease common to Larch and some Firs, and known under the scientific name of Sphærella laricina and the common name of Larch Needle-cast. Towards the end of June and early part of July small brown spots appear on the needles. These are fungus germs, which later on bear spores. The mycelium of the fungus spreads into the leaves and causes them to fall off and the young branches to die. The cause of the disease is planting the trees in unsuitable situations. There is really no remedy where trees are grown on a large scale. Isolated trees may, however, be sprayed with Bordeaux mixture during spring. This will act as a preventive. The spraying must be done frequently over a period of three months, viz., February to April.

Lichen on Azaleas (*A. S. Edinburgh*).—To get rid of lichen on Azaleas dissolve half a pound of Greenbank's 98 per cent. caustic soda, half a pound of commercial potash and half a pound of soft soap in hot water and in separate vessels. Then mix well together and add sufficient water to make up to five gallons of liquid. When the Azaleas are absolutely dormant they must be syringed with this mixture. Its caustic properties should be borne in mind, and it is very necessary that the operator wears rubber gloves.

Shrubs for 6-feet high fence (*Alfred Bousfield*).—The following plants are suitable for your fence—you can plant them about 6 feet apart: Rose Alberic Barbier, R. Dorothy Perkins and R. Hiawatha; the former is cream, the second pink, the third red. The Cut-leaved Bramble (Rubus laciniatus) and the Loganberry are two useful and ornamental fruiting plants. Jasminum nudiflorum (which flowers during winter), Clematis montana rubens, C. Viticella and Lonicera japonica (the Japanese Honeysuckle) are all subjects which will thrive and flower well, and quickly cover your fence.

Beheading a Holly tree (*Hook*).—Not the least harm to your very tall Holly will result from cutting out its head, even 10 feet in depth; but it will be as well to leave the beheading until the middle of March, a flow of sap very soon follows. When you have the head sawn off, see that the top of the severed stem is neatly pared off smooth with a sharp knife and coated over with painters' knotting, white lead or coal-tar to protect the wood from decay. If your tree has now a pyramidal form which you would like to preserve, when the head is cut off also shorten back some of the upper branches. These will soon break afresh and show vigorous growth.

THE GREENHOUSE.

Heating a conservatory (*Mrs. Blair*).—If the structure adjoins the house a small gas-stove could be installed, but if not, any of the small heating apparatuses advertised in THE GARDEN would do quite well. In some instances oil-lamps are used, but the fumes from these are so much opposed to plant-life that we do not recommend their adoption. A small heating apparatus which could be fixed outside the house would give no more trouble than a lamp and be minus the latter's objectionable fumes.

History of the Cyclamen (*Excelsior*).—There are many species of Cyclamen, and the early history of them all would take up a considerable space; but we conclude that your question refers to the Persian Cyclamen, which is now so much cultivated for the decoration of the greenhouse. In a state of nature Cyclamen persicum occurs throughout Greece, the Greek Islands and the whole of Syria. It was introduced into this country in 1731, but for many years it was not grown to any great extent. In the original species the flower is white, with a reddish purple blotch at the base, while it is also devoid of scent. Under cultivation, however, it has yielded a vast number of forms and colours, as these last range from pure white to deep crimson, while in addition to the ordinary forms we have the crested, fringed and Papilio types. It was at one time the custom to give varietal names to individual plants of Cyclamen persicum, and during the years from 1870 to 1889 no less than thirty-six varieties were given certificates by the Royal Horticultural Society. Concerning Cyclamen persicum, it may be noted that it has the largest flower of all the species, and another notable feature is that in all the others the seed-pod winds itself up in the length of the flower-stalk until it assumes a spiral tightly curled up close to the parent tuber, while in C. persicum the flower-stalk, after the blossom is past, often lies flat on the ground.

Climber for conservatory (*Beginner*).—You do not say the size of the conservatory, which would have helped us in our reply. Good roof-plants are Clematis indivisa lobata, Abutilons and Fuchsias, all of which are free-flowering and suitable for a cool house. Apart from the plants you name, such Ferns as Asplenium bulbiferum and Adiantums of sorts, Azalea mollis, Ficus elastica, Ivy-leaved Pelargoniums, Ophiopogon and Ferns in variety may be grown. All the plants named require to be watered, otherwise they will perish. Dryness at the root is a wise precaution in times of frost, but at other times such extremes often repeated may do much harm. A point to remember concerning oil-stoves is that perfect cleanliness is most essential, not only to the effective working of these things, but as a safeguard against the presence of obnoxious fumes arising therefrom.

Information about Orchids (*J. M.*).—As the soil of your Orchids is in a bad state, it will be necessary to shake them clear of it and repot them before you can expect much improvement. At the same time, it is an unfavourable period of the year to do this, and we advise you to wait until next March. Until that time you must water them when necessary, and damp the stages and other surroundings every morning in order to maintain a certain amount of atmospheric moisture. You ask how often they should be watered, which question it is, of course, impossible for us to answer, as so much depends upon the house, manner of heating, &c. One thing is you must give them sufficient water to keep the soil fairly moist. For most Cattleyas and Lælias the best temperature is that known as the intermediate house, of which the lowest winter temperature should be 55°, rising during the day to 60° or 65°. When March comes your better way will be to prepare a mixture of peat and sphagnum ready for repotting. Then turn the plants out of the pots, take off all the soil and cut away all dead roots. After this they must be repotted, using for the purpose quite clean pots half filled with broken crocks. Care must be taken not to use pots too large, for it is far better to induce them to form good, healthy roots in small pots, and shift into larger ones when these are well furnished with roots. On no account must the soil after repotting be kept too wet. A gentle bedewing with the syringe three or four times a day will be very helpful.

FRUIT GARDEN.

Pear tree Bergamotte Esperen bearing two crops of fruit yearly (*W. Prosser*).—It is not an uncommon occurrence for the Pear tree to bear a second crop, but we have never known an instance where the second crop has been worth preserving. The variety under notice being one of our latest Pears, it generally takes it all its time to properly ripen its first crop, therefore it is quite hopeless to expect it to be able to ripen a second one. We think another year if you pluck off the bloom of the second crop as soon as it is visible the first crop will swell and ripen all right—that is, provided the tree is robust and in good health.

American blight on Apple trees (*A. B.*).—There is nothing better or which is safer to use for the destruction of this pest than the Caustic Alkali Wash which we have so frequently recommended. It kills all insect-life with which it comes in contact and frees the bark of the trees of all extraneous growth, such as lichen or moss, leaving it smooth and shiny. The success of its application depends on the thorough way it is applied, making sure that every hole and cranny of the bark is reached by it. Be careful to burn all the leaves which fall from the affected trees and also all prunings and some 2 inches of the surface soil, as the pest often takes shelter in the soil during winter. The spraying should take place, first, immediately after the fall of the leaf, and again in February. The mixture is of a burning nature, and care must be taken to protect the hands and clothes while applying it.

Washing fruit trees (*Excelsior*).—Iron sulphate will not take the place of the alkali wash for use in the winter, and there is a possibility that green plants growing under trees that are sprayed would suffer if the spray dripped upon them; in fact, there is scarcely any doubt that they would suffer severely. Probably the best alkali spray for cleansing trees is made by dissolving 2lb. of caustic soda (98 per cent.) in ten gallons of water, and this should be used as late in the spring, before the buds burst, as possible, say, at the end of February. The alkali wash should be made at home. It may be used in combination with copper sulphate and paraffin when there is an attack of Apple scab to guard against, and is then best purchased in the form of the Woburn Wash for fungi in winter. This is a compound of copper sulphate and paraffin, and to this caustic soda is to be added. The greatest precautions to take in fighting the Apple scab appear to be to cut out all dead wood and diseased twigs, and to spray with Bordeaux mixture before the flowers open and again as soon as the petals have fallen.

Hot pipes too close to stems in vinery (*J. H., Portmadoc*).—The action of constant heat radiating at close quarters round the stems of the Vines is bound to result in injury to them by the tendency it will have to dry up the bark and tissues, and so make the circulation of sap more difficult. The best thing to do to obviate this injury is to place a piece of board 6 inches wide and a few inches higher than the pipes against the stems of the Vines facing the pipes. This will effectually guard them against any such injury.

Pear tree on stable wall unsatisfactory (*Ellis Escombe*).—The variety is Pitmaston Duchess. It is a valuable sort for market purposes, as it succeeds well when grown as a standard in an orchard where the soil is suitable. It bears heavily and always commands a good price by reason of its size and handsome appearance. The sample sent is of average size. Possibly the flavour may have been better when the tree was growing on a south wall, hence the previous tenant's estimate of it. We do not think you can do anything to improve its flavour. Should you decide to destroy the tree, we should recommend you to plant a variety named Doyenné du Comice in its place. It is a free grower, good cropper and the flavour is first-rate. It is in season from the middle of November to Christmas.

Fruit trees for wall spaces in different aspects (*F. Varley*).—Garden A (east wall 9 feet high): In space 9 feet plant one trained tree of Golden Drop Plum. In space 39 plant three fan-trained trees of Vicar of Winkfield Pear, the best of all for preserving for winter, dessert and other uses. In space 6 feet plant three single cordon-trained trees of Williams's Bon Chrétien Pears. In space 9 feet plant one fan-trained tree of Golden Drop Plum. South wall (13 feet space by moving Plum): Plant one fan-trained tree of Moor Park Apricot. Garden B (east wall 6 feet high, space 24 feet): Plant six double cordon-trained Pear trees of the following varieties—one Beurré Giffard, one Williams's Bon Chrétien, one Triomphe de Vienne, one Marie Louise and two Doyenné du Comice. Fine south wall in Garden B (6 feet high, space 30 feet wide): Plant one double cordon-trained tree of each of the following Pears—Winter Nelis, Beurré Dubuison, Easter Beurré, Santa Claus and Thompson's. Dessert Plums (one tree of the following varieties, all double cordon-trained, on account of the wall being so low): The Old Green Gage, Transparent Gage, Denniston's Superb Gage and Jefferson Gage. Garden C (wall facing north, space 24 feet): Plant with two fan-trained Morello Cherry trees. Wall facing west in the same garden (12 feet high, space 24 feet): Plant with one fan-trained tree of each of the following Cherries—Frogmore Early Bigarreau, Governor Wood and The Noble. We hesitate to recommend the growth of the Peach or the Fig out of doors so far North.

Small black spots on Blenheim Orange Apples (*H. Jackson*).—The Apples are dead ripe, and the black spots are simply premonitions of decay. The shrivelling of the skin which is apparent in one of the specimens suggests that the Apples had been gathered from the trees too soon, or that they had been stored in too dry a place and therefore ripened prematurely. On the other hand, the early ripening may be due to the remarkable and unseasonable spell of warm weather experienced for close on a fortnight during the past autumn. This did much damage in many Apple orchards, Apples falling wholesale off the trees many weeks before their usual time of ripening.

Wire fence for training fruit trees on in unsheltered part (*R. U. R.*).—If Apples and Plums succeed well in your district with good culture and some protection, we should be inclined to risk planting some of the hardier varieties of Apples and Plums (Pears would be less likely to succeed), or, if in doubt respecting your chance with the above fruits, you might with confidence plant the Loganberry, a useful and productive fruit which is becoming most popular for preserving purposes. It need scarcely be said that good culture must precede the planting of either. Of Apples we should plant James Grieve, Allington Pippin, Lane's Prince Albert, Bramley's Seedling, Worcester Pearmain, Court Pendu Plat and Braddick's Nonpareil. Plums: Kirke's, Reine Claude de Bavay, Green Gage, Purple Gage, Belgian Purple, Czar, Victoria, Early Prolific and Prince Englebert.

Apple trees for lawnside (*E. G. C.*).—The "Thorles Apple" mentioned by Mr. W. B. Hartland in the issue of THE GARDEN of September 19 last must, we think, be an Irish treasure not yet introduced to this side of the channel. Apples of first-rate flavour ripe at the time mentioned are scarce. Among the best and most handsome will be found a new variety recently certificated by the Royal Horticultural Society named Feltham Beauty, sent out by Messrs. Veitch and Sons of Chelsea. It is a cross between Cox's Orange Pippin and Gladstone. Duchess of Gloucester is a very beautiful variety, exceeding almost the Worcester Pearmain in brilliancy of colouring. Ben's Red is a hardy, free-cropping variety, ripe in September, of a brilliant clarety red colour. For a yellow-fruiting variety ripe about this time we know nothing better than Irish Peach. John Downie Crab, nearly the size of a small Apple, is a lovely shade of old gold and a heavy cropper.

ROSE GARDEN.

Rose shoots injured (*O. C. B.*).—We believe that the injury to your Roses is caused by the larvæ of one of the numerous Rose sawflies. Some of them deposit their eggs in the young and succulent stems, and the larvæ feed upon the pith. Sprinkling with Hellebore powder will tend to keep the pests away, and the small flies can be caught with a hand-net. One of the shoots looks as if it had been attacked by weevils, and as these usually feed after dark they must be sought for at that time. The best plan is to place a white sheet under the bush and then give it a shake, when the weevils will fall into the sheet and can readily be destroyed.

Rose leaves for inspection (*Freshwater*).—Your Rose leaves No. 1 are infested by the caterpillars of a very small moth (Nepticula anomalella), which lays its eggs on the leaves. The little caterpillars, as soon as they are hatched, make their way into the interior of the leaf and live on the inner substance, making long galleries or mines as they feed. They certainly disfigure the leaves, but unless they were present in very large numbers they could not really injure the plant. The best way of destroying them is to pick off and burn the affected leaves as soon as the presence of the caterpillars is detected. Spraying has not been found to be of any use. The moths are very small insects, measuring scarcely an eighth of an inch across the open wings; it is possible that they might be prevented from laying their eggs by spraying the leaves with paraffin emulsion, but the difficulty would be to know when the moths were about to lay their eggs. Leaves No. 2 have been injured by the so-called Rose slug-worm, which is neither a slug nor a worm, but the grub of one of the sawflies (Eriocampa rosæ). These pests are at times the cause of much injury to the bushes. They feed entirely on the upper skin of the leaves, and when fully grown fall to the ground, bury themselves, and become chrysalides in little cocoons. While the grubs are on the leaves, the best way to destroy them is by spraying the plant with Hellebore wash. Mix 1oz. of freshly-ground Hellebore with 2oz. of flour in a little water, then add enough water to make three gallons of wash and keep it well stirred while applying it. If the attack has been a very bad one, remove 2 inches in depth of the surface soil from under the plants in the winter and burn or bury it deeply.—G. S. S.

Roses in vases (*H. H.*).—You would have no difficulty in growing standard trees of Dorothy Perkins in the vases, but it would be best if the trees were specimens that had previously been growing in pots, as in this case they would have a ball of earth attached to their roots. But it is very unlikely that you would be able to procure such trees of the White Dorothy, and we question whether even you can procure standards from the open ground yet, as it is new this season. If you provided about 4 inches of drainage, such as broken crocks, this would be sufficient. Then fill up the vases with good fibrous loam two parts, with one part of well-decayed manure admixed, also some steamed bone-meal. Plant the trees very firmly, with the roots 6 inches beneath the surface, and take every care to secure them from being blown about by the wind. This beautiful Rose, both the pink and the white form, is capable of being trained in almost any shape, but as a drooping or weeping tree it looks best.

Dark-coloured Roses (*A. B.*)—As to why dark Roses are more difficult to grow satisfactorily than light colours we can only say, "'tis their nature." Raisers are trying to obtain very dark crimsons among the Hybrid Teas, and if they succeed the difficulty will be solved; but at present there are few really good dark Roses in this section. M. Pernet-Ducher's new Rose, Chateau des Clos Vougeot, promises well, although its bloom is not comparable to a Prince Camille de Rohan. As a rule, very dark Roses succeed better when grown on standard or half-standard Briars, and if the blooms are carefully shaded from very bright sun you would be able to grow some sorts very well. We think your soil does not require any more heavy material such as clay, seeing that it is already inclined to be heavy. It would doubtless benefit by a dressing of basic slag at once, and in February Tonk's Manure should be added. You will find the following dark Roses good reliable sorts, viz., Jubilee, Reynolds Hole, Louis Ricard, Eugène Fürst, Charles Lefebvre and Abel Carrière. We take it that you have merely shortened back the growths moderately of your newly-planted Roses, for it would not be a good practice to prune severely until March. You need not fear any harm accruing from the appearance of new growths in such a season as the present. The new growths will doubtless suffer from frost, but in March you will prune past such growths to good plump dormant eyes within 4 inches or 5 inches of the base of the plants.

Roses for North London garden (*Seeker*).—The selection you have made is an excellent one, every Rose being good, and we do not think you can improve upon the list. Hugh Dickson is a splendid crimson Rose that grows well; Antoine Rivoire is also first-rate. Anna Olliver will succeed in almost every garden, and Mrs. S. Treseder, which is a sport of the latter, should do equally well, although we might perhaps prefer Lady Roberts, another sport of Anna Ollivier. Florence Pemberton is good, but if you would like a beautiful rose-coloured variety we can recommend instead Gustave Grunerwald. Pharisaer is splendid.

Rose shoot diseased (*N. E. Daniell*).—The Rose shoot is attacked by the disease known as Rose canker, and this has probably been caused by the fungus Coniothyrium Fuchelii. The first sign of the disease is the appearance of purplish red areas on the bark of the shoots, and all these spots should be cut out and the wounds painted with some antiseptic. All the badly-attacked shoots should be cut out altogether and the cut surfaces painted. All pieces removed should be burned at once. It is important to remember that the fungus is a wound parasite, and that the only place through which it can gain an entrance is by small or large holes in the bark caused by pruning, insects or even the whipping together of the shoots themselves.

Transplanting Roses at Michaelmas, 1909 (*T. W. Maynard*).—You need not take the trouble of potting up your Roses, as the bushes may safely be dug up at Michaelmas and replanted in your new garden We removed some last year on September 14, cut off all their foliage, dipped their roots in thin mud and replanted in new positions. The plants, Rambler and Tea Roses, look at the present moment in excellent health; in fact, they have commenced to send out new shoots. The important point to bear in mind in early transplanting is to see that the roots are kept moist and away from drying winds, and also to remove all foliage immediately. In the case of long growths these may be cut back to at most 3 feet, and the plants will be all the better for it.

Rapid-growing Roses for a tall arch (*A. C.*).—You cannot do better than make a selection of fast-growing Roses from the multiflora, wichuraiana and sempervirens groups. Six excellent sorts would be Blush Rambler, Hiawatha, Dorothy Perkins, Alberic Barbier, Crimson Rambler and Félicité Perpétue. If you plant them in the order named they would harmonise well. To encourage rapid growth good holes should be opened fully 3 feet deep and as much in width each way. The holes are then refilled, working in some well-rotted manure with the soil. If the soil is not specially good, add some from another part of the garden. Fill the holes up and allow them to settle down before planting. It would take about a week to do this.

Crimson Rambler bare at the base (*Smutt*).—You do not say the age of your plant, but we presume it possesses some growths three and four years old. In order to encourage new growths from the base, some of these old shoots should be cut out at once. They may be of great thickness, but it will be best to remove them; in fact, this Rambler in particular always succeeds best when all the growths over two years old are removed annually, as soon after July as convenient. By retaining only the one year and two year old wood we obtain a far more satisfactory blooming. You may not be able to remove the old wood all in one season, but even if one growth be cut right down to the base this will encourage new shoots to spring up.

KITCHEN GARDEN.

Transplanting Onion plants (*R. S.*).—You certainly sowed your Italian Onion seed unusually early (July 15) to get plants to stand the winter. Apart from the fact that such plants are apt, in very hard weather, to succumb to frost, there is the further danger that next summer, whether transplanted or left where sown, they will bolt off to flower rather than properly bulb. The middle of August is amply early for making sowings of Onion seed to stand the winter, and some gardeners do not sow till the last week in that month. Certainly lift plants carefully towards the end of March, easing the soil with a fork to prevent breaking of the roots, then dibble out into rows 15 inches apart, the Onions being 9 inches apart in the rows. Very fine bulbs should result. You will find Italian bulbs will soon decay. Far better sow Maincrop or Ailsa Craig at the end of August to provide fine, hard, good-keeping bulbs.

How to erect a Mushroom house (*A. M. M.*). The most important thing to bear in mind in building a house for Mushrooms is to make a provision against the sudden fluctuations of the temperature and atmosphere of the house. To this end it is necessary for the walls to be built thickly (at least 15 inches) and that the roof should be covered with a deep thatch of Heather or straw and with boards on the inside. The winter temperature should range from 53° to 57° Fahr., and in summer it is important that the house be kept as cool as possible. The best position in which to erect such a house is that against a garden or other wall facing north. The house should be a lean-to 10 feet high at the back and 8 feet in front, with a width of 9 feet. Its length must depend on the supplies required, whether large, medium or small. We suggest that from 24 feet to 30 feet would be a useful size. On the side next the high wall four tiers of beds could be had, each 3 feet wide and 11 inches deep, to include one bed made on the floor. Three tiers only could be had next the low outer wall and the two ends, namely, one at the bottom, the next 3 feet higher, and the third the same distance above the second. The fittings to carry the beds are best made of cast iron columns, reaching from the floor to the roof and resting on good foundations (as they have to carry a big weight when the beds are all full) braced together lengthways by 4-inch angle iron girders, the flat part of the angle on the inside forming a place of lodgment for the slate slabs or timber (whichever is used) to form the bottom of the beds. Any horticultural builder will know how to erect the fittings for the beds. The door should be in the middle and wide enough to allow of a barrow-load of manure to be tipped through it into the house. It should have two glass ventilators in the roof near the back wall and about 6 feet from each end. Mushrooms need little air, but provision must be made for letting the steam out of the house when fresh, hot manure is taken in. Portable coverings lined with Heather should be provided to place over the ventilators to keep the house dark, and as a protection from cold in winter and heat in summer. Provision will have to be made for artificially heating the house by hot water. A small boiler will be sufficient for the purpose. The pipes should consist of four 4-inch pipes (two flow and two return) laid on the floor side by side (raised slightly off the floor) and covered over with an open wooden trellis to form the pathway, which will be 3 feet wide.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

BEST EVERGREEN SHRUBS FOR WINTER EFFECT.

How to Grow Them.

(First Prize Essay.)

THERE are a great many species of these now in cultivation. The following list includes those which are most effective and also hardy. Regard must be paid to the locality in which they are to be grown, as many shrubs will thrive in the South and West and in sheltered situations which would be killed elsewhere by cold. It must be borne in mind that many shrubs over three years old will often grow and succeed well and not succumb to frost, while the same shrubs if quite young will die, so that it is well to purchase good-sized, healthy plants. In some parts trees must be grown to provide shelter for the shrubs, especially against north and east winds. Conifers, evergreen and deciduous trees may be grown for this purpose. The conditions of the soil must be considered. Some subjects will thrive in rich, moist land, others in chalky, poor soil. Before planting a new garden always ascertain what species will thrive best in the locality.

In large gardens shrubberies are best planted near the park or woodland and the shrubs allowed to grow at will, provided a little pruning is done annually to keep them within bounds. It is generally best to group the plants according to their species, and not to mix all kinds together indiscriminately. A pretty effect may be secured in spring by having bulbs in groups planted among the shrubs. In small gardens it is not so easy to keep to one species, as only a few can be grown. Select a few and have several of each rather than one or two of many varieties, which produce a patchy effect.

The Best Time to Plant is in autumn or early spring. The ground should be well prepared beforehand by being deeply dug and, if poor, manure should be dug in. If preparing for Ericaceous or other peat-loving plants, peat and sand should be added. When planting any shrub dig a hole quite large enough to contain the roots. These should never be cramped, but always well spread out. Any broken or bruised roots should be pruned with a sharp knife. Bury the stem to the same depth as it has been previously covered at the nursery. Throw the soil over the roots by degrees and tread firmly.

Pruning.—This should be done in the case of flowering shrubs immediately after flowering. Others should be pruned in April or May. The principal object in pruning evergreens is to keep them a good shape and certain size. Keep the heads well open to harden the wood and plump up buds for next season.

Aucuba japonica.—The well-known spotted variety with berries is the female form, also longifolia and angustifolia with green foliage. Males: Bicolor, sulphurea and ovata with variegated foliage, vera and grandis with green foliage. Does not thrive in draughty situations. Succeeds well in towns.

Arbutus.—A. Unedo (the Strawberry Tree) is hardy in England. White wax-like flowers are borne at the same time as the berries. These latter are edible, but are rather seedy. Prefers peaty soil and plenty of moisture.

Bay (Laurus nobilis). — Ornamental shrub. Thrives in most situations and soils. Leaves used in cooking for flavouring.

Berberis.—Handsome decorative plants. The common species thrive in any soil; the better sorts in loam, peat and sand. Propagated by suckers or layers in autumn. Some of the varieties have prickly leaves. B. Aquifolium, yellow flowers in April and May, may be planted under trees; B. Darwinii, orange yellow flowers in early spring, small dark green leaves; B. stenophylla, yellow flowers, narrow pointed leaves.

Box (Buxus).—Useful evergreen. Any soil. Varieties sempervirens (common Box), B. japonica (golden leaf), Myrtifolia (Myrtle leaved).

Butcher's Broom (Ruscus).—A prickly shrub with flattened branches, which have the appearance of leaves. The white flowers and afterwards red berries are borne in the centre of the leaf-like structure. Good for growing under trees.

Choisya ternata (Mexican Orange).—Sweet-scented flowers, shiny green foliage in winter. Hardy, but likes a sheltered position.

Cotoneaster.—There are many varieties of these excellent shrubs, nearly all bearing bright red berries in winter. C. angustifolia, orange yellow fruits; C. microphylla, short branches, very small dark green leaves, round crimson berries; C. Simonsii, orange berries, bushy growth, easily raised from seed and layers.

Cratægus Pyracantha (Fire Thorn).—Very showy evergreen when covered with its brilliant scarlet berries in clusters in winter. Flowers in May.

Ceanothus rigidus.—Generally grown against a wall; blue flowers; raised from cuttings and layers.

Daphne Cneorum.—Trailing shrub with narrow leaves; red flowers produced in early spring. D. Laureola and pontica do well under shade of trees.

Escallonia macrantha.—Dark shiny leaves and brilliant red flowers; several seen in blossom on December 22. Other varieties are not so hardy.

Euonymus.—E. japonicus, E. latifolius albo-variegatus and E. l. aureo-variegatus sometimes suffer in severe winters. Suitable for town gardens on the south and west coast.

Erica (Heath).—Most of these require a light, peaty soil, but E. carnea will succeed in almost any ordinary garden soil. Flowers in January and February and onwards. E. codonodes likes a light sandy soil; it has small white and pink flowers from January to May. E. hybrida, very lovely, sometimes flowers as early as Christmas.

Garrya elliptica.—This shrub has yellowish green catkins near the tips of the branches from November to February.

Gaultheria Shallon.—This is an excellent undershrub with its shiny green leaves in winter. It

succeeds well in peaty soil. In early summer it bears flowers like those of the Arbutus, followed by dark bluish purple berries.

Gorse or Furze.—This is a fine shrub for any situation; a few branches are nearly always in blossom, hence the saying, "When the Gorse is not in blossom, kissing is out of fashion." Yellow leguminous flowers, followed by brown seed-pods.

Hedera.—The Tree Ivies are very ornamental and produce clusters of different coloured berries. They grow well under the shade of trees. Varieties: H. aurea maculata (gold spotted), baccifera lutea (yellow berries), palmata and tricolor variegata.

Ilex (Holly).—This, of course, is a well-known evergreen, much in demand at the festive season ot Christmas for its bright red berries and green, shiny leaves; used for decorative purposes in churches, mansions and cottages. There are many good species. Green leaved: Aquifolium (common), crenata latifolia, doningtonensis, fructu-luteo (yellow berried), laurifolia, myrtifolia, recurva (curled), serratifolia (saw-leaved). Silver variegated: Argentea marginata, argentea medio-picta, Silver Queen. Golden variegated: Aurea marginata, Golden Queen, Mme. Briot, Golden Milkmaid. Increased by budding on the common Holly or by cuttings.

Kalmia.—Dwarf shrubs with narrow leaves. Species: Angustifolia, glauca and latifolia. Peaty soil.

Laurel (Cerasus).—C. Lauro-cerasus, C. lusitanica (Portugal Laurel), C. rotundifolium, latifolium, colchica and caucasica. Propagate from cuttings struck in autumn in a shady place in sandy soil, also by seeds sown in autumn, or by grafting and budding.

Ligustrum (Privet).—White flowers, which have rather a sickly scent, followed by almost black berries. Neat, close growing. Good for hedges. Varieties: Ovalifolium and O. aureum elegantissimum.

Magnolia grandiflora.—Named after Pierre Magnol. Large, bright green leaves. Flowers from May or June till autumn if the wood is well ripened. Increased by seed and layering, but takes from one to two years to root.

Olearia Haastii.—A useful shrub; does well in Cheshire and Lancashire and on the sea coast.

Rhododendron.—These are best grown in peaty soil, but the hardiest sorts will thrive in any ordinary garden soil so long as it does not contain lime. Varieties: Caucasicum, dwarf, does not grow much over 3 feet; flowers white and rosy pink. Varieties of caucasicum: Stramineum, pale yellow; pulcherrimum, rose; album, white; pictum, delicate pink, with dark spots. R. dauricum atrovirens, flowers bright rosy purple, sometimes open in January.

Skimmia.—Dwarf shrubs with white flowers, succeeded by red berries. S. oblata (female) and S. fragrans (male).

Viburnum Tinus (Laurustinus).—A valuable winter-flowering shrub, the pinkish heads of blossom being produced all through November, December, January and February. Another variety is hirtum.

Viscum album (Mistletoe) is not a shrub, but should be grown on Apple trees, as it is in great demand at Christmas. Associated with the ancient Druids. A ripe berry needs to be squeezed upon a branch and then covered with muslin to keep off the birds; it will soon grow.

Vinca (Periwinkle).—Not exactly shrubs, but almost so, especially V. major and V. m. elegantissima, which often continue to flower right through the winter. Will grow almost anywhere. Spreads very fast.

Yucca (Adam's Needle).—Gloriosa is the hardiest. Others are recurvifolia, angustifolia, filamentosa and aloefolia.

(MISS) R. B. CANNON.

14, Christchurch Road, Reading, Berks.

PRIZES FOR READERS.

DECEMBER COMPETITION.—AWARDS.

IN this competition prizes were offered for the best essays on "The Best Evergreen Shrubs for Winter Effect and How to Grow Them." This subject proved a popular one, as a large number of essays were received. The prizes are awarded as follows:

First prize of four guineas to Miss R. B. Cannon, 14, Christchurch Road, Reading, Berks.

Second prize of two guineas to Mr. C. W. Caulfield, Bridgen House, Park Crescent, Erith.

Third prize of one guinea to Mr. W. P. Wood, The Gardens, Oaklands Court, St. Peters, Kent.

Fourth prize of half-a-guinea to Mr. W. L. Lavender, Waltham Manor Gardens, Twyford, Berks.

The essays from the following are highly commended: F. J. Lansdell, Edwin Platt, H. Arnold, A. Dennett, Thomas Dent, W. H. Morton, Mrs. J. E. Mills, W. McDermott and G. H. Webster. Many of the papers gave excellent cultural directions, but the collections of shrubs named were generally weak, and even in the best essays many good shrubs were omitted.

NOTES OF THE WEEK

FORTHCOMING EVENTS.

*** *The dates given below are those supplied by the respective Secretaries.*

January 21.—Gardeners' Royal Benevolent Institution, Annual General Meeting at Simpson's, 101, Strand, London, W.C., at 2.45 p.m.

January 23.—French Gardening Society of London Annual Dinner at the Café Royal, Regent Street.

May 6.—Royal Gardeners' Orphan Fund Annual Dinner, the Duke of Rutland presiding.

Victorian Medals of the Royal Horticultural Society.—The vacancies in the roll caused by the deaths of Mr. George Nicholson and Mr. Martin R. Smith have been filled by Sir Jeremiah Colman, Bart., and Mr. Charles Ross, upon whom the council of the society have conferred medals. Our readers will probably remember that we recently published a portrait of Mr. Charles Ross, who has done so much to advance the Apple, and Sir J. Colman is, of course, a well-known Orchid enthusiast.

A new keeper of the Kew Herbarium.—Owing to the retirement of Mr. W. Botting Hemsley, F.R.S., from his official post as keeper of the herbarium of the Royal Gardens, Kew, Dr. Otto Stapf, F.R.S., has been appointed to this position, and Mr. C. H. Wright, A.L.S., now becomes the chief assistant in the Phanerogamia. Mr. Hemsley has made many friends during the period of his office, and his retirement will be generally regretted.

The Royal Caledonian Horticultural Society.—Prior to the annual meeting of the Royal Caledonian Horticultural Society on January 13, the council issued their recommendations for filling the vacant places as office-bearers and members of council, caused by the retirement of those who retire in rotation. They recommended the appointment of the Right Hon. Lord Dunedin as vice-president, and Messrs. William Pirie, Dalhousie Castle Gardens; J. D. Adair, 75, Shandwick Place, Edinburgh; and A. Malcolm, Duns, as councillors. An abstract of the accounts was appended to the notices of the meeting. This showed that, as was feared from a falling off in the attendances at the shows, the finances are not in such a favourable position as at the end of the previous year. The net excess of expenditure over income amounted to no less than £176 11s. 2d. To this deficiency has to be added the depreciation on an investment of £350 in the Metropolitan District Railway Company, which has been written down to the price at November 30 last—a proper step on the part of the council. The depreciation from the price at which it formerly stood in the books is £223 13s. 9d., so that the total apparent decrease of funds during the year is £398 12s. 5d. This is much to be regretted, but it must be remembered that most of this really occurred before and was only shown this time by writing down the railway stock. The Neill Fund showed that Dr. J. H. Wilson, St. Andrews, was paid the Neill Prize, which amounted to £31 9s. 3d. It is hoped and expected that the accounts for the ensuing year will show a considerable improvement.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

How to rid a garden of field mice. I should be glad if any reader would inform me of some means of getting rid of a number of field mice who have located themselves in my garden. They appear to come in battalions and eat up green things, especially choice young cuttings. I am averse to putting poison on the ground as I keep a pet dog. Possibly someone may know of some method of eradicating this pest. The garden is fairly large and is surrounded by large grounds.—H. E. C.

Sutton's White City Potato.—In the very fine seed catalogue just issued for the current year by Messrs. Sutton and Sons is a large picture of a crop, just as lifted, of their new White City Potato. The illustration shows the crop of 100 roots as lifted, without being handled or in any way distributed. It is the first picture of a Potato so far yet presented in that way. As I, with a well-known North Hampshire gardener were, other than a few members of Messrs. Sutton and Sons' staff, the only persons who saw this crop, I can testify to the correctness of the illustration and also that the crop was indeed a splendid one. It was specially pleasurable to see it, because it presented an entire break away from the Up-to-Date strain, the parents of this novelty being Abundance and Langworthy. I have had cooked tubers of it, grown on very stiff soil in Surrey, and found them to be the nearest reminder of the old Victoria of any Potato I have tasted for many years. The variety is a strong grower, late ripener, long keeper, produces no huge tubers, but all of good table size, and comes very free from disease.—A. DEAN.

The "scarcity" of Holly berries. I have read in several papers, in addition to the notes by correspondents to THE GARDEN, on the scarcity of Holly berries this season. It would appear from these that the lack of berried Holly is almost general. Looking at the numerous Holly trees on this estate, the prevailing idea that berries are scarce is hard to realise, for here they are—or have been until recently—simply smothered with berries, so much so that no one appears to remember having seen better. The birds, too, which some seasons almost strip the trees before Christmas, have been very sparing with them, this leniency on their part being probably due to the exceptionally mild weather. As a contrast to this season's plentiful supply, last year there was hardly a berry to be found, and we had recourse to the use of Cotoneaster and Pernettya, which we mixed with Holly branches. To give the appearance of the genuine article for decorating, and by artificial light at least, this proved a good substitute; but nothing to my mind can quite take its place for Christmas decorations, for, added to its undoubted beauty, a touch of sentiment seems to cling to the Holly for the festive season.—A. J. COBB, *Duffryn, Cardiff.*

A note from British Columbia.—It might be interesting to the readers of THE GARDEN to know how Hydrangea hortensis and its varieties behave here in Victoria and vicinity. Often I have seen the flowers partly blue and partly pink, and then, again, some plants blue and some pink growing side by side. A gentleman came to me a short time ago and said that he wanted blue Hydrangeas like his neighbour's. He said that those he had previously got from me were pink, and it was difficult to believe that they were all one species (H. hortensis). I passed his place a few days afterwards and saw that his neighbour (just over the fence) had a row of beautiful blue ones, while the others a few yards away were a very fine pink. On my place I never had blue Hydrangeas either outside or under glass until last spring, when I had a batch of about 100; they were H. Thomas Hogg, Otaksa and rosea. Plants of each variety came blue and some only partly blue, others pink and white, according to the varieties. All these plants had been treated exactly alike in each case. I have written before about Cotoneaster angustifolia, but I would like to say a little more in favour of this beautiful shrub. I was passing a gentleman's residence when my attention was attracted by a mass of beautiful yellow berries among lovely evergreen foliage. It was quite a distance from the road, but on closer inspection I saw that it was a magnificent plant of C. angustifolia, about 8 feet high, trained to the side of the house, and it was a plant that I had sold two years previous. About a week later I was asked to visit a garden twenty miles away from Victoria, and there again I found another C. angustifolia that I had sold, and it also was a very fine plant about the same height as the above mentioned, but not so freely berried.—G. A. KNIGHT, *Mount Tolmie Nursery, Victoria, B.C.*

Plants in flower on Christmas Day.—I send herewith a list of the plants that were in bloom in the open garden here on Christmas Day, which may prove of interest to readers. At present we have not got a large collection, and many other gardens could show a much larger list of choice things. I also send you a photograph of the largest of two plants of Solanum Balbisii, taken last month. These two plants are growing on an east border in a sheltered walled garden and have been in almost constant bloom. They passed through last winter safely, although not far from them an exposed thermometer on two occasions registered 9° of frost and several times between 5° and 7°. Growing close to them are plants of Rhodochiton volubile, Daturus, Dimorphotheca Ecklonis, Lavandula stœchas (dentata), scented-leaved Pelargonium and Freesias, which also passed through the winter quite unhurt. Daphne indica is growing in a more open and exposed position, but is quite happy and will soon have plenty of bloom. I believe this plant is not half so tender as is generally supposed. The Cinerarias have been quite a feature in the garden; they are fine plants and are now blooming quite as well as those grown in pots under glass, and if untouched by frost will continue for a long time. Rhodochiton volubile, Clianthus puniceus, Solanum Balbisii, Datura sanguinea, Fuchsia reflexa, Fuchsia hybrids, Chrysanthemums, Salvia rutilans, S. splendens, S. coccinea, Roses, Sparmannia africana, Cineraria stellata, Cineraria hybrids, Senecio Heritieri, Marguerites (yellow and white), Pyrus japonica, Antirrhinums, Geraniums, Coronilla glauca, Violas, Phlox Drummondii, Nasturtiums, Wallflowers, Stocks, Polyanthuses, Matricaria eximium, Cobæa scandens, Eccremocarpus scaber, Anemones, Cerinthe retorta, Lavandula stœchas (dentata), Helleborus niger, Daphne indica rubra, Violets, Arctotis, Primula sinensis, Auriculas, Laurustinus, Echeveria metallica, Hydrangeas, Berberis Darwinii, Erica lusitanica, E. carnea rosea, Daphne Laureola, Nicotiana Sanderæ, N. affinis, N. sylvestris, Eupatorium weinmannianum, Cyclamen Coum, Iberis sempervirens, Alyssum maritimum, Gorse, Forget-me-not, Snowdrops, Iris stylosa, Veronica and Roman Hyacinths.—F. MARK, *The Gardens, Trevissome, Flushing, near Falmouth.* [Unfortunately, the photograph sent was not suitable for reproduction.—ED.]

A Crocus flowering without soil. The accompanying illustration is of interest as showing the extraordinary vitality possessed by many bulbous plants. The Crocus here portrayed was one that escaped planting in the autumn of 1907, and it remained outdoors on the surface of the soil the whole of the winter of 1907-8. With the advent of spring, however, its marvellous vitality could no longer be suppressed, and it burst forth in all the splendour of its four large golden blooms, when it caught the eye of its loving owner, who promptly photographed it. It will be noticed that practically no roots were formed, and it is safe to assume that the corm was a particularly well-ripened one, or, to be more correct, was well stored with reserve food, which was used to develop the flowers.

Unseasonable flowering of shrubs.—This season has been remarkable for the flowering in winter of many shrubs and trees whose usual period of blossoming occurs in

A CROCUS FLOWERING WITHOUT SOIL.

the spring. In the South-west Choisya ternata and Cytisus racemosus, though bearing most profusely in the spring, generally perfect an autumnal crop of bloom, and these were at the end of the year covered with flowers. Pittosporum Tobira often bears a scattering of autumnal flowers, but this season it is covered with blossom. Laburnums, too, in many cases are flowering with a spring-like abundance, and in one instance a May tree is coming into bloom. Olearia stellulata has, within the last month, come into full flower, and I see that my bush of Leptospermum scoparium has hundreds of expanded blossoms on it. Calceolaria Burbidgei was, the third week in December, a mass of flower in the open garden, and with me Correa cardinalis is already bearing its scarlet blossoms and Abelia rupestris is in bloom, while I noticed one flower-truss on Abelia floribunda in the border. Other shrubs that are bearing flowers are Grevillea rosmarinifolia and Convolvulus Cneorum. The extraordinary mildness of the weather experienced until Christmas has doubtless been instrumental in inducing this abnormal flowering, for until December 29, when 2° of frost was registered, the thermometer had never fallen below freezing point since the summer. On December 30 the thermometer showed 4° of frost.—S. W. FITZHERBERT, *Kingswear, South Devon.*

THE GREENHOUSE.

VALLOTA PURPUREA AND ITS CULTURE.

THIS plant, popularly known as the Scarborough Lily, is a native of South Africa and, in common with most bulbs from that region, needs the protection of a greenhouse or a good light position in the dwelling-house where it is quite safe from frost during the winter. Like many of its allies, natives of the same region, this plant, immediately after blooming, continues to perfect its growth ready for another season, so that, when the flowers are over, a light spot in the greenhouse near the glass should be assigned it. Water must be given, even at that time, whenever necessary; indeed, if the pots are full of healthy roots, a dose of weak liquid manure will be of service. Given this treatment the Vallota will continue to push up leaves throughout the entire winter and for a time in the spring, after which it takes a partial rest; but at no time does it become so thoroughly dormant as to need the parching up that Nerines require to induce them to flower well. Indeed, the Vallota thrives best if the soil is kept slightly or moderately moist, increasing the water supply as the flower-spikes appear.

The bulbs of the Vallota by no means need repotting every year, hence, when this operation is carried out, the potting compost should be such as will remain in good condition for a long time. Yellow loam lightened by a little well-decayed leaf manure and a liberal sprinkling of silver sand just suits the Vallota. As above stated, annual repotting is not necessary, for even when the bulbs are tightly packed in the pots they will grow and flower well year after year. In the case of imported bulbs they should, of course, be potted immediately on receipt; but the best time of the year to repot established plants is in the summer just before growth recommences and the flower-stems are pushed up.

Concerning the varieties, the old-fashioned typical sort is of rather dwarf growth and has fine round flowers of a deep scarlet colour. Since the South African War we have had large quantities of bulbs imported from that district, and, as a rule, they are taller, with more starry flowers, and altogether inferior to the Vallota purpurea of old. A well-marked variety, and by no means a novelty, is that known as eximia, of rather dwarf growth, while the flowers are large, round in outline and in colour bright scarlet, with a whitish throat. In the variety magnifica the growth is tall and the flowers self-coloured. Besides these, pink and salmon pink forms are occasionally met with among imported bulbs, but whether the change of colouring in their case is due to an inherent weakness of constitution I cannot say; at all events, they are extremely difficult to establish.

By repute there is, or has been, a white-flowered form, but I have never yet met with it. There is, however, a pretty hybrid in cultivation obtained by the intercrossing of Vallota purpurea with Cyrtanthus (Gastronema) sanguineus, which was first raised about twenty-five years ago. This, known as Cyrtanthus (Gastronema) hybridus, is a smaller and more slender plant than the Vallota, while the flowers of the different individuals vary somewhat in colour. Its cultural requirements are just the same as those previously advised for the Vallota, and it flowers at about the same season of the year.

H. P.

GLOXINIAS FROM SEED.

THE Gloxinia has now for some years past been coming to the front as a popular favourite, and the skilful work of the hybridist has been the means of placing on the market such fine examples of this truly gorgeous greenhouse perennial that it is well worth the while of all

who possess a glass-house—and in these days of cheap horticultural structures their name is legion—to include a few of the erect-flowering forms in their stock of summer and autumn-flowering plants.

The Gloxinias from which the present garden varieties take their origin are natives of Tropical America, and were so named in honour of Benjamin P. Gloxin, a botanist of Colma. Their propagation from seeds is simple—as easy, in fact, as that of Begonias—and, with a little care and generous treatment as to temperature in the early months of the year, they may be depended upon to produce a most gorgeous floral display during several months of the late summer and early autumn of the same year in which the sowings were made. Tubers of the very best erect-flowered varieties are rather expensive, so that a few practical hints as to their culture from seeds will prove, perhaps, not unwelcome to those readers who desire to obtain a good stock of plants, and who are not averse to a little trouble in the early stages of their growth.

PROPAGATION.

Gloxinia seeds are exceedingly minute, so that some care is necessary in the sowing and the preparation of the pots and soil for their reception. A shallow seed-pan or, failing this, an ordinary flower-pot should be carefully crocked to within 2½ inches of its top, and on the crocks a layer of rough fibry material placed to prevent the soil washing down into the drainage, and this covered with a compost consisting of equal parts of loam and good leaf-mould, with a fair sprinkling of fine potting sand to the depth of about 1½ inches. The compost should be well mixed, baked to get rid of insects and destroy fungus spores, and passed through a fine sieve. Some pure leaf-mould should then be taken, well baked and rubbed through a very fine sieve (such as is used in the kitchen for straining gravy), placed on the top of the compost to the depth of about one-eighth of an inch and carefully levelled. The pot or pan must now be placed in water, the level of which should be just below the top of the soil, and allowed to remain therein until the whole is thoroughly soaked, when, the superfluous water having been allowed to drain, the seeds may be sown.

GLOXINIAS FLOWERING THE SAME YEAR AS RAISED FROM SEED.

SOWING THE SEEDS.

Gloxinia seeds being so very small, it is impossible to scatter them evenly and thinly with the fingers, and they should therefore be mixed with a little fine silver sand and the mixture scattered carefully over the surface of the soil. No covering is necessary, or at the most a very slight sprinkling of the fine-powdered leaf-mould. It may be here stated that the object of having the top layer of pure leaf-mould is an important one and should not be overlooked when dealing with Gloxinia, Begonia or other minute seeds; it does not readily "cake" as pure loam would, nor is the troublesome liverwort, which so often develops on the surface of pot soil, likely to appear, and therefore the inevitable loss of a large percentage of the minute seedlings will be avoided.

The pots may now be plunged up to their rims in fibre in a propagator or other heated structure where a temperature of 65° to 70° (the latter for preference) can be maintained, covered with a piece of glass to conserve the moisture, and the whole heavily shaded, a piece of brown paper being well adapted for this purpose. The soil must not be allowed to become dry, and whenever water is needed it should be applied by immersing the pan nearly up to the rim and not by means of a rose or syringe overhead; warm water (70°) should always be used. The propagator should be kept close and only opened for a short time morning and evening to allow the stagnant air to become changed, and at the same time the inside of the glass must be wiped dry; neglect of this may result in wholesale damping off of the seedlings.

In about ten days the tiny plants will begin to make their appearance, and the brown paper shading must then be removed and full exposure to light given, but protection from the sun's rays must be afforded by means of tissue paper or light muslin. While the first pair of rough or true leaves are in process of formation is the best time to prick out the seedlings into shallow pans or boxes, using a compost as before, but omitting the layer of leaf-mould on the top. At this early stage pricking out is a somewhat tedious and troublesome operation, but it is important to take it in hand before the little rootlets have had time to run far and thus avoid a severe check to the plants. For lifting, a small zinc plant label, in the pointed end of which a V-shaped notch has been cut, will be found a very efficient tool, as it may be bent to any angle required. Each plant should be levered out of the soil by means of a large match with one end pointed, carefully lifted with the notched label, and deposited into a small hole made in the new soil with a pointed stick and carefully dibbled in. In this way it will not be necessary to touch the plants at all with the fingers. As already stated, this will require time and patience, but it is surprising how quickly and neatly it may be done with a little practice. The seedlings should be planted about 1 inch apart and the pan containing them then immersed in a vessel of water as described above, allowed to drain, and then be put back again in the propagator and kept close for a few days till root-action is again vigorous.

From this time full exposure to light (with the pans near the glass), but not to direct sunlight, must be given; a sturdy and robust growth will then result. As soon as the leaves begin to touch one another a further shift must be given, this time planting singly in 2½-inch pots, carefully crocked and filled with soil consisting of loam two parts, leaf-mould and fibrous peat of each one part, with about half a part of coarse potting sand, the soil being made moderately firm about the roots and the whole moistened by standing the pots for a few minutes up to their rims in water.

From now onwards the plants should be shaded from bright sunlight and kept on a shelf near the glass in a temperature of 60° to 65°. The soil should be kept moist, but the leaves must not be wetted. When the roots begin to work well round the sides of the pots—which may be ascertained by carefully turning out the ball of soil by inverting the pot—the final shift should be given into 5-inch pots, this size being the most suitable for flowering in the first year. The compost for this potting must be carefully prepared and consist of good mellow fibrous loam three parts, lumpy peat one part, leaf-mould one part, and a fair sprinkling of coarse sand to keep the soil porous; a little guano or of one of the advertised fertilisers may also be added with advantage.

Under this treatment and the influence of a genial temperature the first of the plants raised in January should come into flower in July, and there should be a brilliant display during August and September and on into October. Occasional weak doses of liquid manure will assist in the development of the flowers. The illustration shows part of a batch of Sutton's Giant Gloxinias flowering in July, the result of seeds sown early in January. This strain is a fine one, the flowers erect and well formed, and the colours including pure white, white spotted and blotched with various colours, cherry, red, cerise, various shades of pink, red and purple, and violet, making altogether a most gorgeous display.

Gloxinias enjoy during growth a fair amount of moisture, but during the flowering season somewhat drier surroundings will result in a prolonged flowering period. The best temperature to grow Gloxinias in is about 60° to 65°, but they will, when once started, do quite well during the summer months in a greenhouse in which there is no artificial heat.

In conclusion, let it be impressed on those contemplating the culture of these charming plants to always procure the best seed obtainable, and probably what is known as "mixed" seed, producing as it does a great variety of colours and shades, will give the most satisfactory results, with every possibility of obtaining some novelties as to size and colour.

RODIER HEATH.

Brutonia, Westham, Weymouth.

THE KITCHEN GARDEN

SEED-SOWING IN THE VEGETABLE GARDEN.

THE New Year's seed catalogues will now be in hand and the work of drawing up the seed order will need attention. The enthusiastic gardener, both amateur and professional, is always on the look-out for something new, and he seldom fails to find a list of novelties when searching his New Year's seed list. It must be remembered that, however good these new varieties have been proved to be, it can hardly be expected that they will meet with success under all conditions. Climate, soil and methods of cultivation differ so materially that the most successful crop in one garden may be quite a failure elsewhere, even when given the best attention. It is for this reason that older and proved varieties should not be discarded.

Novelties should certainly be given a trial wherever possible, as owing to the care given by seedsmen to the selection and trial of their stocks, many new and excellent varieties are annually placed before the public.

Every gardener is eager to sow seeds of some vegetables as early as possible in the open ground, and often a spell of cold or wet weather during the months of January, February and March causes much anxiety, especially on heavy clay soils. It is much better to wait until the ground is fairly dry and can be worked with ease than to attempt to prepare for seed-sowing when the soil is wet and adheres to the boots and tools of the workman. I have often seen a plank used to stand on while drills are being prepared on borders for early Peas, and on light soils this is to be recommended, but it is doubtful whether the practice is advisable on heavy soils. Seeds for the supply of early crops should always be sown somewhat thicker than for successional crops, owing to the risk of the seeds or the young plants being destroyed either by inclement weather or by vermin.

Peas, which everyone is very anxious to have as early as possible, are liable to rot should a period of cold, wet weather ensue, also, if not protected, they may fall a prey to mice or birds. It may not be possible in all cases to prevent the first of these evils, although with the aid of spare lights much may be done in this way. Mice may be kept from doing much harm if the seed is dusted with red lead before sowing, also by the aid of traps or poison where it is safe for the latter to be used. Perhaps the best protection against birds is the galvanized wire Pea protectors, or the humble but effectual black thread. Remember that "Prevention is better than cure," and guard against all these evils at the time of sowing the seed.

Broad Beans are one of the earliest crops sown out of doors, and fortunately these are not so liable to injury as many others, neither are they so fastidious as to the state of the soil, heavy soils often producing abundant crops. They must, however, be guarded against vermin, and slugs will sometimes cause much damage to the plants when young and tender.

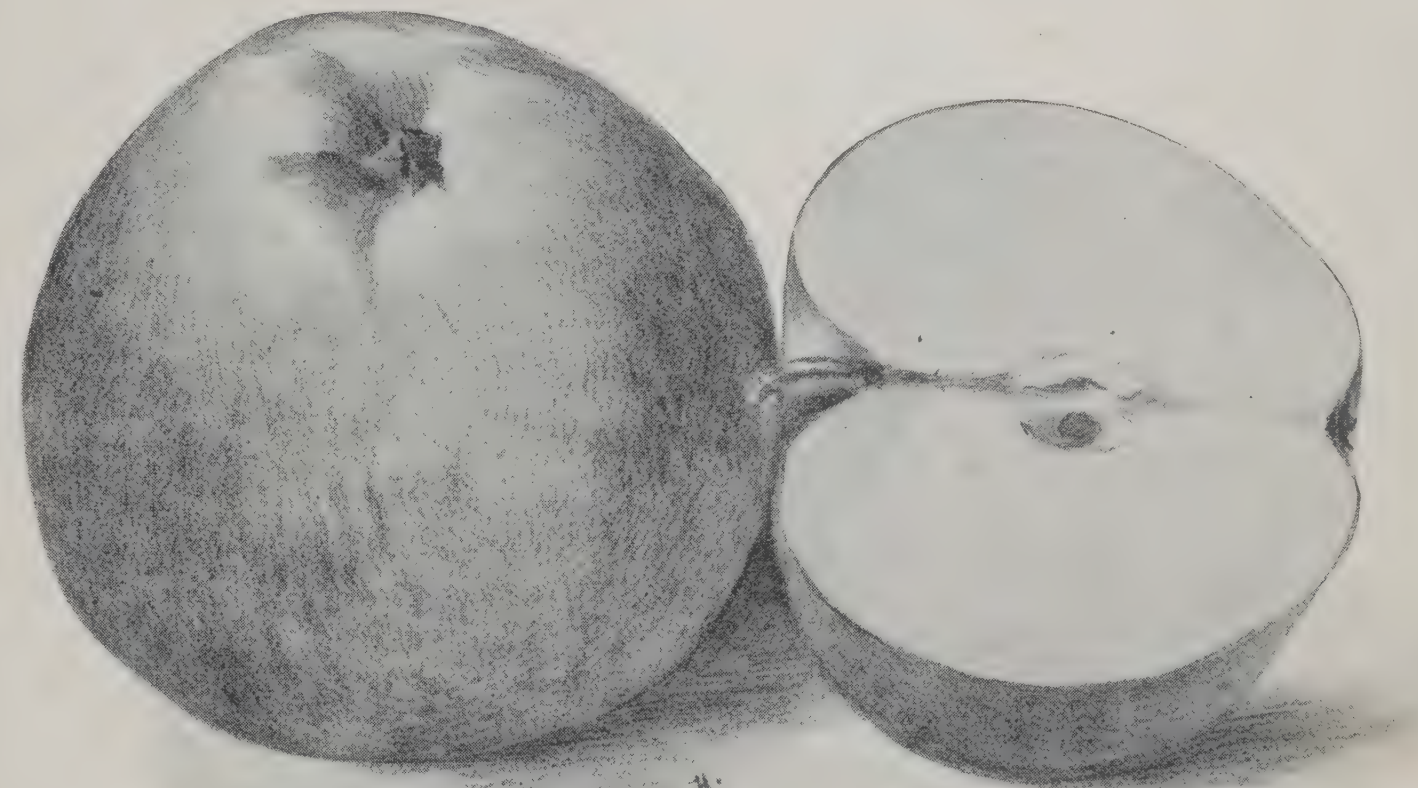
Other crops which are generally sown early are Turnips, Spinach, Lettuce, early Carrots and Parsley. Turnips quickly germinate if the weather is favourable, and are just as quickly destroyed by the ubiquitous sparrow. Bird netting or thread should be spread over the seed-bed to prevent the onslaught of these feathered marauders. A very small quantity of Lettuce seed will suffice for this early sowing, and one of the quick-hearting Cabbage varieties is the best for this purpose. These make very fast growth in genial spring weather and are much appreciated, but a small quantity only is required for the supply of a moderate household, as they mature so quickly and are apt to run to seed. Spinach may be sown fairly thick, and, as soon as the leaves are large enough for use, withdraw the young plants where they are too crowded (leaving the rest to develop) and pinch off the roots. This early tender Spinach makes a most acceptable vegetable.

Early Carrots are always in demand, and, fortunately, there are varieties of very quick growth; these, when sown on a warm border in light soil, are one of the most important crops, especially where no facilities exist for raising early vegetables on hot-beds. Parsley, although some time in growing, should, for this very reason, be sown early, as during severe winters the supply often runs very short. The young plants are eagerly looked for, and every inducement should be given them to make sturdy growth. C. RUSE.

THE FRUIT GARDEN.

THE NEW APPLE WILLIAM CRUMP.

THIS new dessert Apple, produced by crossing Cox's Orange Pippin with Worcester Pearmain, and which was raised on the Madresfield Court estate, promises to make a formidable rival to its popular parent Cox's Orange Pippin. When tasted by the fruit committee of the Royal Horticultural Society, on the 22nd ult., it was found to be richly flavoured, having yellow-tinted flesh, quite firm, and the colour of the fruits approaching that of Worcester Pearmain. Mr. W. Crump, after whom it is named, though not the raiser, not only knows it well, but has worked it to form good-sized bush trees, and can thus speak of it with authority. In Worcestershire, he tells us, the richly-coloured Worcester Pearmain is regarded by the market growers as the best paying Apple for dessert, its good cropping qualities and rich colour greatly aiding in that direction. But these growers are asking for a later richly-coloured variety to follow Worcester Pearmain, and it is expected that the new variety William Crump will satisfy their longings. It is a free cropper, has robust, healthy growth, and in those respects materially excels Cox's Orange Pippin, which is not always a satisfactory grower.



THE NEW DESSERT APPLE WILLIAM CRUMP. *(Natural size.)*

FORCING STRAWBERRIES.

SUCCESSIONAL batches of these should be introduced periodically into the structures where the conditions are favourable for a gentle start into growth, remembering that as the season progresses fewer plants will meet the demands for fruit, and that the time necessary for the fruits to mature will become gradually shorter. The first condition necessary to success is a well-rooted, well-developed crown, and with such plants no bottom-heat is required. A temperature ranging between 45° and 55° will do to begin with, gradually raising it till the plants begin to show flower, when they should be removed to a light and airy structure and kept near the glass in a temperature of from 65° to 70°. Care should be taken at this point not to allow the roots to become too dry, or a bad set will be the result. The opening flowers should be brushed over with a camel-hair brush to fertilise them.

THE ROSE GARDEN.

ROSES BY THE SEA.

"HOW I wish we could grow such Roses by the sea!" has often been remarked by my friends; and seeing so many queries upon the same subject is my excuse for a few words. More often than not the soil is at fault. This is especially the case on chalky coasts. With a little trouble this need not be a hindrance. We do not begrudge labour in making Vine and other borders, and, when half of the same would secure us good soil for Roses, there is no reason why we should not enjoy them. Many subjects besides Roses will not thrive when exposed direct to the sea air; it is a little too salt, and the winds are even a worst feature, but with the least shelter from these there can be no better position for Roses. An open position is often recommended for these, but a clear sweep of several miles is going to the other extreme. The whole secret is soil and a little screen from winds.

Two years ago we had to plant a large number of Roses by the seaside, and it was remarkable the different ways these grew, even when a very short distance apart. A point not sufficiently considered is the enormous amount of builders' refuse and bad soil from excavations that gets shot down at the most convenient spot Scarcely any plant will thrive in this, and there is nothing less suitable for Roses on their own roots or even upon stocks. Replace some of this with good loam and suitable manure, and it should be easy to have Roses in almost any form. Remember, too, what quick and excessive drainage is provided by chalk and builders' rubbish.

Roses are deep feeders and soon exhaust the soil. Of course, each position needs a little different treatment to get the best results, but the main point is soil. A few very good Roses for the seaside garden are: Viscountess Folkestone, Corallina, Captain Christy, Dupuy Jamain, Margaret Dickson, Mrs. John Laing, Mme. Lambard, La Tosca and General Jacqueminot among dwarfs. Gloire de Dijon, Mme. Alfred Carrière and Ards Rover are good climbers for a wall; while over porches and archways we can have Aimée Vibert, Scandens, Dorothy Perkins, Crimson Rambler and, in short, almost any that do well in similar positions inland. A. P.

PERPETUAL-FLOWERING AMERICAN CARNATIONS.

(Continued from Vol. LXXII., page 631.)

AS one purpose for which these Carnations are grown is to afford a supply of flowers in the winter months, it follows that they must be grown under glass for part of the year at any rate. There is no doubt that the best results are obtained if an entire house can be given up to them. Wherever this is possible I would strongly advise it, and I think it will be found that the pleasure and utility of the resultant bloom will outweigh any regrets at giving up a mixed house, or, if a new one has to be built, that they will soon prove the money to have been well spent. Still, where neither of these alternatives is either possible or wished for, fair results may be obtained by growing them with other things. The following cultural notes cannot claim to be more than suggestive. For details I would refer readers to two excellent little booklets, which give full directions for their treatment all the year round: (1) "The Perpetual-flowering Carnation," by M. C. Allwood; (2) "Cultivation of the Perpetual-flowering Carnation," by C. H. Taudevin. With these I may couple "The Modern Carnation," by Hayward Mathias, which deals in more or less detail with every section of the "divine" flower, including florist's types and Malmaisons. The list of varieties is primarily intended for beginners, and it is the combined result of my own experience and my visit to Tangley Nurseries. The amateur in his selection of varieties cannot do much better than follow the lead of large trade growers like Mr. Page, who are bound to study the constitution, the floriferousness, the disease-resisting powers and the midwinter flowering properties of the kinds they cultivate. Common-sense suggests beginning with the easiest and leaving the more-difficult-to-manage and the more delicate till some experience has been gained.

WHITE POTTEBAKKER TULIPS GROWING ON A GRASSY BANK.

HOUSE.

Light and air are the bread and butter of the Perpetual-flowering Carnation and genial warmth is its drink. Sufficient heating power should be provided so that a night temperature of about 45° (or 40° in very cold weather) can be maintained. It must not be forgotten that the plants are perpetual flowering, and that they grow very tall when they are giving their succession of bloom, hence 4 feet 6 inches is none too much to allow from the staging to the eaves. The ridge of such a house may be 10 feet to 12 feet from the ground level. The question of glass surface and its relation to the interior air is an interesting and important one.

CULTURE.

Beginners will certainly find it best to buy small plants. Cuttings are best taken in January and February. To enable them to root quickly they should have a bottom-heat of 8° to 10° above that of the house. Then when rooted pot them into 2½-inch pots. As soon as the roots are running round the sides, move them into 3-inch or 3½-inch pots, and then, when they are getting established, will be about the right time to give them their first stop. This is done by breaking off the top, leaving about four or five joints on the plant. When these are full of roots the plants must be given their final shift into 7-inch pots. For this some crushed bone and soot may be added to the soil, and with good drainage and firm potting the plants should give a good account of themselves. Up to the end of May they must be under glass, either in a cold greenhouse or frame. From May onwards they may be grown out of doors much like Chrysanthemums, and two most necessary details to consider are the watering, which must be carefully done, and the stopping, which must not be neglected whenever a shoot shows signs that it wants it. No stopping, however, must be done after the end of July.

Most growers advocate cool frame culture all the summer, as then in very wet weather they may be protected from too much rain; but this is probably impracticable for most amateurs. I have had quite good results from entire open-air treatment. At the end of August or very early in September the plants must be housed, and if the stopping has been done as wanted, and two batches of cuttings been struck at, say, a three weeks' interval, there should be a succession of flowers all the winter. The best soil is good maiden loam with some sharp silver sand, burnt earth, and a little fine old spent manure if the loam is very stiff. Staking is an important factor in success; so, too, is fumigating. Do not spare the XL or whatever you use; fumigate immediately the plants are under cover, again ten days later, and then throughout the autumn and winter whenever required.

VARIETIES TO GROW.

The selection I have made are all reliable sorts and flower well in winter. For convenience of reference I have arranged them all under colour headings. White: White Perfection, large and free; White Lawson, an excellent variety, its failing being that the blooms often come with a blush shade or pink streak on the petal. There is an Improved White Lawson which is said to come quite pure. Red: Beacon, very healthy and free, exceedingly bright at night; Brittania, an excellent flower—it has tender leaves and needs greenhouse culture to do it properly. Pink: Enchantress, one of the best of all this type of Carnation, blush pink; Melody, delicate pink (Lawson sport); Fair Maid, real pink (Rose pink); Winsor, silvery pink; Winona, similar to Winsor, but a more symmetrical flower, very nice in electric light; Aristocrat, beautiful cerise pink—now that Mrs. T. W. Lawson appears to be deteriorating, this should be grown in its place. Deep crimson: Governor Roosevelt, a large, free, well-formed flower, not so liable to rust as Harlowarden, and one that I always like the best when I see the two together. Striped: Jessica, white with bright red flakes, healthy and strong grower.

JOSEPH JACOB.

COLOURED PLATE.

PLATE 1365.

A BEAUTIFUL NEW ANNUAL.

(DIMORPHOTHECA AURANTIACA.)

THIS was introduced to England by Messrs. Barr and Sons, King Street, Covent Garden, in 1902, through the kindness of Mr. Charles Ayres of Cape Town, who had it sent to him from Namaqualand as a species of Arctotis. Seed was presented to Kew by Messrs. Barr and Sons, and there, when in bloom, it was identified as Dimorphotheca aurantiaca, from dried specimens in the Herbarium. The flowers of this beautiful annual are of a rich, glossy, salmon orange, a little deeper in colour than shown in the coloured plate.

Sown in a gentle warmth in spring and planted out in June, it produces a profusion of bloom for months in succession. This Dimorphotheca also makes a most graceful pot plant for cool greenhouses or sitting-room windows. Out of doors the flowering stems reach about 9 inches in height, but in pots in the greenhouse the plants grow a little taller. Like other members of this family, Dimorphotheca aurantiaca only opens its flowers fully when exposed to the sun. Some plants on the rockwork at the Royal Horticultural Society's Gardens at Wisley attracted a great deal of attention last year. There was room for such an annual as this, and lovers of flowers owe their thanks to Messrs. Barr for introducing it to this country and who kindly supplied the flowers from which our coloured plate was prepared. We cannot have too many flowers that may be easily raised from seeds.

THE FLOWER GARDEN.

TULIPS IN GRASS.

A LARGE clump of the lovely pure white early Tulip White Pottebakker flowering on a grassy bank is represented in the illustration on page 30. Everything looks well planted in grass, and Tulips are no exception. I have seen them planted in two large gardens and in our own churchyard. Unfortunately, from what I can gather from the experience of others, and also from my own, the bulbs after two or three years seem to die out, or, probably, to be more accurate, fail to flower. Frequent renewals are necessary if we are to get flowers every spring, and it then becomes a question of cost. Is it worth spending so much each autumn to ensure a good display in April and May?

The question of Tulip planting in grass is an important and interesting one. In the case of Narcissi (Daffodils) every variety does well; but when we come to Tulips we want a great deal more information than we have at present. The particular clump in the illustration looks to me as if it was its first year in the ground—it would be most instructive to have a photograph of the same clump taken this year (1909) and yet another in 1910. The Editor will be doing the Tulip-loving world a good turn if he would try and arrange for it to be done.

We want some data to go upon and we want to try many varieties before we can come to any decision about their suitability. I fancy some few Tulips grow in their wild state in meadow land (P. sylvestris certainly does), and it may be that the wild forms will be found to be the best in grass. Sylvestris, Didieri, Hageri, kolpakowskyana, billietiana and mauriana are some that I would suggest for this purpose. If these were given a trial, as well as some of the early and late garden varieties, and the results recorded in the pages of THE GARDEN, the information, I feel sure, would be welcome by many who are contemplating planting in this way. JOSEPH JACOB.

A RARE VERBENA.

(V. MAONETTII.)

As beautiful garden plants the Verbenas are deservedly popular favourites, either planted in the front portions of the herbaceous border or for growing in beds by themselves. The wonderful diversity of colour and profusion of bloom combine to place these plants in the front rank of those that are suitable for the adornment of any garden. Although numerically a somewhat extensive genus, very few Verbena species are known in gardens, among those sometimes met with being V. Aubletia (Rose Vervain), V. chamædryfolia, V. teucrioides and V. venosa. Chiefly from V. chamædryfolia and V. teucrioides are derived all those beautiful forms that are grown so much from seed annually and planted out for flowering during the summer and autumn months. Of recent years a very pretty half-hardy annual (V. erinoides) has become more plentiful in our gardens. It is of dwarf habit, and produces a profusion of flowers varying in colour from purple to pure white.

Quite distinct from any of the above-mentioned is the subject of this note and illustration. It is a perennial, with a dwarf, creeping habit, forming a carpet of branching stems close to the ground, studded during the summer and autumn with pretty flowers. These are rose-purple in colour and have the lobes of the corolla bordered with white, producing quite a charming picture. Although not hardy in this country, it may be readily propagated by means of cuttings in the autumn, and the plants should be kept in a frame free from frost. It flourishes in any light, sandy soil in a sunny position, spreads rapidly, soon forming a broad patch of foliage and flowers. Of garden origin, V. Maonettii was introduced from Italy, and is considered a variety or sport of the Brazilian V. tenera, a rather tender plant of creeping habit, with flowers varying in colour from rose-purple to white. W. IRVING.

SWEET PEA CHAT.

NOTES ON VARIETIES.—Novelties now follow one another into the market with such rapidity that it is well-nigh impossible to keep abreast of the times and exceedingly difficult to know what to grow and what to leave out. The enthusiast who attends the great exhibitions, such as those of the National Sweet Pea Society and of THE GARDEN, searches assiduously for the new varieties, and of those which take his fancy he promptly makes a note. This occurs in the summer, but those notes are inevitably unearthed early in the autumn and the seedsmen are bombarded with applications for a thing that may never be seen again or for one that will not be distributed for one or two years, simply because the stock of seeds is limited. Excellent examples of this have been furnished this season in Nancy Perkins, one of the most beautiful Sweet Peas that has ever been shown, and George Stark, the superb scarlet Spencer. Every seller of Sweet Peas has had endless letters asking for these varieties; but, so far as I am aware, few, if any, have succeeded in procuring a supply. And in this craze for novelties there is a danger that some of the splendid old sorts will too soon drop out of cultivation. I purpose, therefore, to devote my first selection to standard varieties which, although old and comparatively cheap, have yet decided claims upon the grower either for their distinctness or floriferousness, or both.

TWELVE STANDARD VARIETIES.—It should be noted that the majority of these have either smooth or hooded standards, whereas, in any other selection which will follow, the waved standard varieties will easily preponderate. Well, here is a good set: Dorothy Eckford, white; King Edward VII., crimson; Lady Grizel Hamilton, lavender; Jeannie Gordon, bicolor; Dainty, picotee edged; Miss Willmott, salmon pink; Mrs. Walter Wright, mauve; Queen Alexandra, scarlet; Mrs. Collier, primrose; Agnes Johnston, cream, suffused rose; Countess Spencer, shell pink; and America, red striped. I have no hesitation in saying that these are all excellent Sweet Peas which are entitled to a place in all collections, whether they aspire to be termed up-to-date or not.

TWELVE NEWER VARIETIES.—In this set only those that are in general commerce will be named, and in one or two instances it will be seen that two names are associated; this means that either of the two may be chosen, but not both. Etta Dyke, white; The King or King Edward Spencer, crimson; Mrs. Bieberstedt, lavender; Mrs. Andrew Ireland or Apple Blossom Spencer, bicolor; Evelyn Hemus or Mrs. C. W. Breadmore, picotee edged; Helen Lewis, orange; Lord Nelson, blue, smooth standard; John Ingman or George Herbert, carmine-rose; Clara Curtis, primrose; Mrs. Hardcastle Sykes, blush; Mrs. Henry Bell or Constance Oliver, cream, suffused rose; and Chrissie Unwin, rosy cerise, smooth standard, beautiful colour. I think that Countess Spencer, or one of those which closely resemble it, such as Paradise or Enchantress, should be included, even though it makes the baker's dozen.

These lists are exceedingly brief, and, as a consequence, several excellent varieties are omitted, although they are fully entitled to representation in collections of eighteen or more. Among these may be noted St. George, for the richness of its orange; Hannah Dale, maroon, smooth standard; Audrey Crier, one of the most beautiful of all the Spencers, but not yet absolutely reliable; Elsie Herbert, white, pink edge; Frank Dolby, lavender and rose; Nora Unwin, white; Prince Olaf, blue flake; Helen Pierce, blue marbled; and Rosy Adams or The Marquis, rosy mauve.

As has been said, all those named are readily procurable through any reliable house. My next notes will be devoted to the consideration of the novelties of the season, some of which may be, and probably are, difficult to procure. I have not dealt with these on the present occasion, for the simple reason that I assume readers of THE GARDEN to be of the class which requires known excellence rather than that which seeks for the novelties because they are novelties and for no other reason. SPENCER.

VERBENA MAONETTII IN THE ROYAL GARDENS, KEW.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FRUIT GARDEN AND ORCHARD.—All planting that remains to be done must be attended to at once, providing the weather is not frosty or the soil too sodden. Extra care will be needed when planting at this season, and good holes must be taken out so that the roots can be spread out to their full

1.—GROWTHS OF THE PRIVET FROM WHICH CUTTINGS CAN BE MADE.

length in a horizontal manner. Any that are bruised should be cut clean into sound wood before planting, as such a wound will heal much better than a jagged one. Where standard or half-standard trees are being planted, these will need staking at once, and it is a good plan to fix the stake in position before planting the tree, then injury to the roots is avoided. The tree can easily be planted up to the stake. In tying, place some soft material between the stake and the stem, so as to prevent chafing, and leave the tie loose enough to allow for future growth. The pruning and nailing of wall trees should be completed without delay. Should the weather prove very severe, Fig trees will need some protection in cold localities, a mat or even branches of evergreens hung in front of them usually sufficing.

Greenhouse.—Primulas and Cinerarias will now be swelling their flower-buds, and will much appreciate a little weak liquid manure. Once a week will be often enough to apply this. Clay's Fertilizer used at the rate of half an ounce to a gallon of water makes an excellent and safe stimulant. Cyclamens, too, where they are now throwing up flower-buds will appreciate this manure water. Fuchsias and Roses trained to the rafters should be pruned and cleaned at once if the work has not already been done. In the case of Fuchsias the lateral growths are usually spurred back to within a few buds of the main rods, unless any are required for extension, when about two-thirds of their entire length may be retained. Roses will not need pruning so hard, unless extra large flowers are required. The side-growths should be shortened back into firm wood, and thin, weakly growths entirely removed. Where strong, young rods were pushed up from the base last summer, these should be retained nearly their whole length, removing the worst of the old branches to make room for them.

Vegetable Garden.—Probably the outdoor conditions will be such as to render work in the open impossible, but there will be plenty of preparatory work to be done inside. Potatoes for planting should be placed on end so that the thickest end is uppermost, using shallow trays for the purpose, so that the layers are of single thickness only. These must then be stood in a light, cool, yet frost-proof place, so that sprouting will take place under comparatively hardy conditions. Tubers treated thus will, at planting time, possess stout green shoots from 1 inch to 2 inches long, and will give much better results than those not sprouted in this way.

Flower Garden.—A few Sweet Peas may now be sown in pots where very early flowers are required, although the general sowing under glass should be deferred for a fortnight. Use pots 5 inches in diameter and place four or five seeds at equal distances in each. Drainage must be good, and soil composed of two parts good loam, one part leaf-mould or thoroughly decayed manure, and one part sand will answer well for the purpose. After sowing give a watering and stand the pots in a cold frame near the glass, as the seedlings must be grown as hardy as possible. Some growers sow one seed in a 2½-inch pot, but pots of this size are not deep enough for the roots of the seedlings. During open weather lawns and walks will be very considerably benefited by frequent rollings, but on no account must the lawns be touched while frost is in the soil, else much injury will be done to the grass. Where new turf is required, this must be placed in position without delay; if left later it is sure to suffer in the hot weather of the coming summer.

H.

INCREASING THE PRIVET.

THE suburbs of the great Metropolis are largely planted with this hardy shrub, and the monotony of terraced houses is not seldom made even more monotonous by the exclusive use of the Privet for dividing the garden of one house from that of another. Growers, however, must make up their minds when planting this subject that they will never be able to grow flowers satisfactorily immediately contiguous thereto. For making a neat and evergreen hedge it is one of the hardiest and simplest of plants to deal with. We would rather see a hedge of Privet at any time than the commonplace and often hideous railings that serve the purpose of dividing the gardens of many suburban residences. The Privet has the advantage of growing quickly, so that its ample growths quickly cover up unsightly fences and give the surroundings a neat and green appearance.

The botanical name for Privet is Ligustrum, and of this there are several varieties. The common Privet is a British shrub and is much used for hedges; it is known under the name of L. vulgare. There are several species and also several varieties of the latter. The most attractive of the whole of the Privets is the Golden Privet (L. ovalifolium foliis aureis). At all times this is a most ornamental plant, and it retains its golden variegated foliage during the whole of the winter. We have seen isolated specimens in certain well-known gardens where they have indeed been "a thing of beauty," and large beds in which this subject is grouped make a beautiful effect in the landscape. This Golden Privet is also now coming into more general use for hedges, and promises, in some measure, to supersede the old Oval-leaved Privet (L. ovalifolium) in this respect.

There are several ways of increasing this subject, and it is one of the easiest of the hardy shrubs to propagate, this usually being carried out in the summer and autumn. When propagated by cuttings in the summer it is usual to select a shady quarter of the garden for the purpose, and here the cuttings, after being properly prepared, invariably root readily enough. Autumn propagation is more generally practised, however. At this period there is generally an abundant supply of ideal growths from which the cuttings can be made. The cuttings must be of firm growth and be from 8 inches to 1 foot in length. It is quite an easy matter to procure from the old plants numerous shoots of this kind. Fig. 1 aptly serves to illustrate the kind of growths suitable for propagation at the period above mentioned.

For autumn propagation outdoors, a period covered by September to November may be regarded as perfectly satisfactory; but we should have no hesitation in inserting cuttings at the present time when the weather is open and free from frosts. The quarters in which the cuttings are to be planted should be properly dug over and broken up. Good sandy loam will serve the purpose of propagation quite well. There may be instances where the demands of growers may be small, in which case large pots, deep boxes or even a cold frame may be utilised at this season to raise a small batch of plants in speedy fashion.

Having determined the kind of shoots that should be selected, we will next consider how

2.—THE SAME GROWTHS AS SHOWN IN FIG. 1 PREPARED READY FOR INSERTION.

they are to be prepared. The shoots depicted in Fig. 2 give a very clear idea how this is proceeded with. It will be seen that the lower leaves have been removed. This has laid bare the joints, which are seen at intervals throughout the length of the stems. To make a cutting the stem should be cut through immediately below a joint, as it is from this latter that the roots are emitted. Some 6 inches, more or less,

3.—PRIVET CUTTINGS INSERTED IN A POT 9 INCHES IN DIAMETER. A USEFUL METHOD FOR SMALL GROWERS.

of each cutting should be inserted in the prepared soil, and this made absolutely firm at the base of each cutting also. This treatment of the cuttings is imperative, otherwise there is considerable risk of their failing to root satisfactorily.

For the purpose of helping small growers, we have shown how cuttings of Privet should be inserted in large pots. Twelve to fifteen large cuttings can be quite easily accommodated in a pot 9 inches in diameter, and if, when inserting them, the propagator begins on one side of the pots and works consistently from one side to the other, the pots may be filled with ease and the last cutting inserted without inconvenience. A series of such pots may be filled at this period, and, if they are placed in a cold frame, there is no reason why the rooting process should not proceed apace. Those who have a cold frame, or who can make up any rough structure to answer the same purpose, may raise a good batch of plants therein during the winter months. Sheltered quarters outdoors at this somewhat protracted period are equally advantageous.

The illustration Fig. 4 reveals a section of two rows of Privet cuttings in the open, inserted in open weather in December. In outdoor propagation we usually allow about 1 foot between the rows, but the cuttings may be inserted 6 inches apart in the rows.

WALKS AND THEIR UPKEEP.

A GARDEN without a certain number of walks is like an uncharted ocean; we should be lost in it, and many of its beautiful contents would remain undiscovered by the casual visitor. Good and useful as walks are, however, they are often abused and constructed without any thought as to their future uses. How often does one see a tiny, snake-like walk in a small garden where a gently curving or straight one would be infinitely better? In laying out a garden we must first of all fix on the principal points and then construct our walks so that they will lead to the most important feature. The craze for serpentine-like curves is at present almost unbearable, the walks winding about in an aimless fashion. Generally speaking, a bold curve is much better than many turns, and even then the walk should be so laid out as to bring one, on turning a curve, face to face with some beautiful object, such as a fine tree, group of shrubs, or even a bed filled with beautiful flowers.

In large establishments a long, perfectly straight walk, opening up some beautiful scenery in the distance, is often most effective. Such a walk will usually be flanked by flower-beds or groups of beautiful shrubs. For kitchen gardens straight walks are usually best. The width of walks will, of course, vary with the size of the garden. Generally speaking, the principal ones should be from 3 feet 6 inches to 4 feet 6 inches wide, carriage-drives being made according to the traffic that they are desired to accommodate.

For general appearance and utility there is nothing to beat a good gravel walk, and where gravel of a binding and bright character can be obtained it should always be used. In making a gravel walk take out the soil to a depth of 1 foot, then place a 4-inch to 6-inch thick layer of rough bricks in the bottom, and over this the roughest of the gravel, finishing off with a 2-inch or 3-inch thick coating of fine gravel or screenings, raking the whole down so that it slopes gently from the centre of the walk to the edges. This will need plenty of rolling when in a moist condition, so as to solidify the whole mass. During the summer a good rolling should always be given as soon as possible after rain, as this will go a long way towards keeping the surface in good condition. A clean and bright appearance is secured during the summer by giving the surface of the gravel a light dressing with old cockle shells; these soon break down and remain clean for a long time.

Next in general utility to the gravel walk is that made with flagstones, and if these are laid so that small spaces remain between them many tiny alpine plants will thrive therein. The initial cost of such a walk is rather heavy, but the upkeep will be correspondingly low. Walks are occasionally made with asphalt or a mixture of tar, small gravel and ashes; but, although durable, their appearance is scarcely in keeping with the occupants of the garden.

Grass walks are a feature in all well-regulated gardens, and if time can be given to their upkeep during the summer months nothing is more delightful. It frequently happens that Rose and other flower-beds are situated in grass, and a grass walk leading to them is most pleasing. It is impossible to lay down hard-and-fast rules as to which kind of walk shall be adopted; all have their advantages, and the owner of a garden must, of course, use his or her discretion in the matter. Gravel walks used at one time to be a great nuisance to keep free from weeds and moss, but since the advent of several excellent, but poisonous, weed-killers this trouble is done away with. It is advisable to apply them through a rosed watering-can directly after a shower and when bright weather is anticipated. Failing such an opportunity the walks should be well watered an hour or two previous to applying the weed-killer. Of course, any substance that will kill weeds will also destroy other plants, and care must be taken not to apply them close to Box or other live edgings.

4.—CUTTINGS INSERTED IN ROWS 1 FOOT APART IN THE OPEN.

THE TOWN GARDEN.

FROSTS.—About the middle of January severe frosts are generally experienced. At such times it is not wise to cut back shrubs or trees, nor to wheel barrows across lawns nor roll the latter. When frozen, the grass blades are stiff and the pressure of the feet or any weighty implement breaks and bruises them, so that after the thaw dark lines or patches show on the lawn. Neither is it advisable to disturb the roots or foliage of any border plants while frost prevails, but heaps of soil and manure may be turned over. The frost will then kill insects which are exposed and sweeten and pulverise the soil.

CLIMBING ROSES.—Many town gardens are of small proportions, and it very often happens that the owners of these small gardens are great lovers of flowers and especially Roses. A single bed of Roses may take up a considerable space of the enclosure; but there are other ways of growing these favourite plants, namely, on posts, arbours, trellises and walls, and even half-a-dozen pillars clothed with Roses form a most attractive feature in the small garden, and, moreover, they do not appear to take up much ground either. In order to be successful with climbing Roses, one must be able to see in one's mind's eye the June effect. If one can do this, then there will not be any mistake in the placing of the pillars and the planting of the Roses. Do not depend upon the ordinary soil of the garden, but either entirely replace it or, at least, mix some good fibrous loam with it. If one barrowful of old soil is removed, replace it with an equal quantity of good new loam for each plant; the latter will soon become established and give satisfaction. The Roses must not be planted during frosty weather. Of course, one may try certain varieties which are particularly liked, but it is wiser to plant strong growers which bloom freely, too. The following are a few which are suitable: Bouquet d'Or, Alister Stella Gray, Crimson Rambler, Blush Rambler, Celine Forestier, Lady Gay, Dorothy Perkins, Hiawatha and Gloire de Dijon.

PRUNING SHRUBS.—It is well worth while to devote some time to the work of pruning shrubs. The form and general appearance of the specimens depend, to a great extent, upon the manner in which the pruning is done. Pruning-scissors may be used, but not shears. The strong pruning-knife is the best tool for the smaller branches of all shrubs. Its use compels one to deal with the branches separately, and so the more surely ensures good work being the result. If the large leaves of Laurels and other kinds of shrubs are cut in twain the bushes are really spoiled. This happens when shears are employed, but not when a knife is used. Do not make the bushes too formal in outline, but simply cut away straggling shoots, so that each specimen will stand distinct from its neighbour. The point of cutting should be out of sight, that is, rather inside the leaves not cut, and not on a level with the latter unless it is desirable to largely extend and thicken the growth on a particular part of the bush. The new shoots will come out past the old leaves in a natural way.

SOIL FOR SHRUBS.—Where it is intended to plant such shrubs as Rhododendrons, Azaleas, Andromeda floribunda, Clethra arborea, Kalmias, Pernettyas and Zenobias, some nice sweet peat should be obtained first and, along with half-decayed leaf-soil, mixed with the original garden loam. It is useless to attempt to grow these kinds of plants without due preparation of the border, and if it is not possible to so treat a large border this season, a small one or a portion of a large one may be dealt with. The soil added should be made up as follows: Peat, two parts; fibrous loam, one part; leaf-soil, one part. Sandy peat is the best, and it should be broken up into pieces about the size of a hen's egg.

AVON.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUITS UNDER GLASS.

VINES started last month will now be on the move. Keep the night temperature at 55° to 60°, with a rise of 10° during the day with sun. If the houses are low-pitched, a little air on all favourable occasions should be admitted. This, however, must be done with great care and judgment, avoiding a cutting draught. Damp all paths and borders, especially near the pipes, with tepid water and keep a sweet, humid atmosphere. When the young shoots have grown sufficiently long they should be carefully and gradually tied to the wires, but do not bend them too much at one time. Examine the borders at intervals, and, if the roots are found to need water, this should be given in a tepid state and in sufficient quantity to moisten the whole of the borders.

Vine Eyes.—These may now be inserted singly in small pots filled with sandy loam. The pots should be clean, dry and moderately drained, and the soil pressed rather firm. The eyes are best taken from medium-sized wood and well matured. Leave half an inch of wood above and below each bud when preparing them and press them into the soil, leaving the buds just above the surface. In a few days the pots may be plunged in a bottom-heat of 70° to 75°. Do not over-water for some time.

Peaches.—As these come into bloom keep the atmosphere a little drier and the night temperature at 55°. Give a little fresh air both night and day, and let the day temperature rise to 60° and 65° with sun. Tap the trellises two or three times daily to distribute the pollen, and if there is a doubt about the blooms setting, go over them with a rabbit's tail or camel-hair brush.

Melons.—Sow seeds of some of the best sorts. I usually sow the seeds in 3-inch pots, the soil being warm, sandy loam, pressed firmly. Do not over-water; if the soil is fairly moist no water will be required till the seeds begin to germinate. Stand the pots on a bottom-heat of 75°, and as a make-shift the pots may be plunged in leaves in suitable boxes and stood over the pipes, with a sheet of glass placed over the box. The leaves should be kept moist.

SALADS AND VEGETABLES.

Cucumbers.—Sow seeds of these, using a rather lighter soil. One seed in a 3-inch pot will be enough if the seeds are good; if doubtful, put two in and remove the weaker plant should both seeds germinate.

French Beans.—These will now force more readily and should be sown in batches of fifty. Put five or six Beans in each pot, using sweet loam and leaf-mould. One of the best for forcing is Ne Plus Ultra, although there are others which may prove equally satisfactory.

PLANTS UNDER GLASS.

Caladiums.—A few of these may now be potted and placed in a suitable temperature. Equal parts of loam and rough peat, with plenty of sand, will suit the more delicate varieties, and a compost made more rich for the larger and more robust sorts. All the tubers at rest should be examined to ascertain if they are sound.

Pot Roses.—These require a thorough look over before bringing them into heat. The drainage should be put right and worms removed if such have entered the pots. When pruning, cut to good plump eyes and the weaker growths more closely than the strong ones.

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FOR THE NORTH AND NORTH MIDLANDS.

FORCING DEPARTMENT.

POTATOES.—Tubers that were placed in a warm, light position some time ago will now be sufficiently sprouted for planting. For very early supplies large pots are convenient, and as many of these, until lately occupied with Chrysanthemums, are at hand, cleansing the insides from any soil adhering thereon will again fit them for use. After being efficiently drained, these may then be filled to about half their depth with good soil. If new loam is used, manure of any kind is unnecessary, but should the former be of retentive character, sand, lime rubble or burnt ash may be used as a corrective. Placed in warmth, as that prevailing in a vinery recently started, the temperature of the soil quickly corresponds with that of the house, and the tubers may then be inserted by merely pressing them into the loose surface, leaving when finished the upper portion and sprout visible. Pots 12 inches or more in diameter will accommodate three tubers each, placing these in a triangle and near the side. If much smaller pots are used, one tuber in each will be ample. The usual course of damping the house for the benefit of the other inmates will provide sufficient moisture for the Potatoes until foliage is formed, and then water of the same temperature as the house only must be given. For succession a pit or frame should be prepared and planted, the heating medium being hot water or fermenting materials; if the latter, sufficient in bulk and so well prepared by frequent turning that a steady, lasting heat may be relied on. In this case the sets may be placed, as already described, in shallow drills formed in the soil at about 15 inches apart, with 9 inches between the sets in the rows.

Carrots, Turnips and Radishes.—These are all much appreciated early in the season, and their culture is not difficult if a few frames are available. Where leaves of forest trees have been collected and made into a large heap a gentle heat will before now have generated. Upon this heap the frames may be placed and be partly filled with leaves or litter, according to their depth, making all firm by treading before putting on the soil. A mixture of about equal parts of loam and leaf-soil is suitable for the purpose. At this season seeds should be sown moderately thick in view of possible slow germination and attacks upon the young plants by various pests. Turnips and Radishes may well be sown in the same frame, using a separate one for Carrots; the prudence of this arrangement will be obvious later on when air has perforce to be admitted to the former crops.

GREEN SALADING.

Lettuces.—A frame prepared in every way similar to the foregoing may now be planted with autumn-sown Lettuce plants, placing these about 6 inches apart. The sashes may with advantage be kept closed for a few days; afterwards a little air at the apex at all times will tend to prevent injury from damp, as well as undue attenuation.

Endive. — Lifted when dry and carefully examined for slugs, a number of plants may be placed in boxes in any dark position, while the remainder should now be covered by frames or even spare sashes, mats being used to effect the blanching process according to requirements.

Mustard and Cress are best sown at frequent intervals and advanced in moderate heat, thus securing a greater amount of leaf with less stem than is often the case when high temperatures are employed.

Chicory still in the open should be raised, and, after selecting sufficient roots for immediate forcing, the remainder may be laid in soil or ashes convenient for future use.

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ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Michaelmas Daisies (*L. B. Withes*).—The following are among the best of these at present in commerce: Acris, blue, 2 feet, early; Amellus major, blue, 2½ feet, early; cordifolius albus, c. elegans and c. major, white, mauve and lilac respectively, 4½ feet; diffusus horizontalis, rose, 3 feet; lævis, mauve blue, 3 feet; Novæ-Angliæ Lil Fardel, rose; N.-A. pulcher, purple; N.-A. Mrs. S. T. Wright, rose purple, 4 feet; lævigatus, rose lilac, 2 feet, early; Novi-Belgii Arcturus, fine blue, 4 feet; N.-B. densus, 2½ feet, clear blue; and N.-B. Finchley White, 3 feet. The above embrace early, mid-season and late varieties. You will find the hardy species of Polypodium well suited to your purpose, and in particular the varieties of Polypodium vulgare, also P. calcareum and P. Dryopteris. Other suitable kinds are Allosorus crispus, Polystichum lonchites, Lastrea montana and Athyriums in variety.

Propagating Verbenas (*Flos*).—If you can keep your old plants of Verbenas, which you have lifted from the open ground and got into pots free from damp, just growing during the winter, they will in gentle warmth in March push young shoots, and these will, when an inch or so in length, make capital cuttings. If you lack warmth, your old plants may damp off and die. To induce cuttings to root quickly in the spring, have a good warmth—that is, from 65° to 75° of heat, whether in a small frame, in a greenhouse or in a frame on a hot-bed—shallow pans well drained, then filled with a compost of one half soil, the other of sharp white sand, into which the little cuttings may be thickly dibbled. In making these do not cut close to the leaf-joint, but half an inch below, as the roots break out from close beneath the leaf-joint. Failing cuttings, get Verbena seed, which you can in several distinct colours or in mixed packets. Seedlings give very beautiful effects during the summer.

Extending a lawn and border (*Beginner*).—If we understand your sketch rightly, there is but one way to extend the lawn, and that is by taking the path at E into the lawn, and, if need be, abolishing the cross path at that point altogether. If, however, a path at that end is a necessity, it could be formed out of the existing border, which you say is too wide. We do not see how you can split up the border to be effective, unless you make of it a set of smaller beds or borders. It would be an easier matter, we think, to reduce its width, as above suggested, and finally to plant it with showy plants of the perennial class. If, however, you wish for summer bedding things, a set of smaller beds would be more serviceable.

Carnation maggot (*Carnation*).—The maggot that attacks the Carnation is the grub of a two-winged fly about the size of a house fly. It lays its eggs in the autumn generally at or near the base of the leaves of the plant, and the grub, which soon hatches out, eats its way down the leaf into the stem of the Carnation, where it burrows and often brings about the death of the plant. The grub goes down into the earth to turn into a pupa, and it is therefore unwise to have Carnations on the same spot as they were growing when attacked by the fly, since the plants will be at hand for the fly to lay her eggs upon as soon as she appears the next season. The usual plan is to keep a watch on the plants, and then to pick out the grubs as soon as they are seen in the plants or the layers

with a needle. If the flies are seen hovering about or over the plants, the latter might be sprayed perhaps with paraffin emulsion, which might deter the flies from laying their eggs, but it is rather doubtful whether this method would be really serviceable, as the time over which the flies appear is rather lengthy.

Carnations going wrong (*B. Ryan*).—The Carnations are attacked by red spider. Fumigate with one of the excellent preparations now on the market, and repeat the fumigation about three days after so as to catch the mites when they have hatched from the very numerous eggs and before they have an opportunity of laying eggs in their turn.

Carnation leaves diseased (*Miss L.*).—The Carnation leaves are attacked by the fungus named Heterosporium echinulatum. All the diseased leaves should be picked off and the plants sprayed with potassium sulphide dissolved at the rate of 1oz. to three gallons of water. The plants should have their foliage kept as dry as possible and be grown in a well-ventilated house.

Treatment of old Chrysanthemums (*C. C.*). The old stools of Chrysanthemums will keep well in the cold frame provided it is thoroughly protected with mats in the event of severe frost. The cuttings will root better in a cold frame than in a cold greenhouse, as the frame can be kept closer after the cuttings are put in than if they are put in a greenhouse. It is not absolutely necessary to have heat for the cuttings, though a little is helpful, especially in cold, damp weather.

Hyacinth bulbs going wrong (*A. Heard*).—Your Hyacinth bulbs are very badly infested by the bulb mite (Rhizoglyphus Echinopus). I could not find any weevils or other insects in the bulbs. If you would send up one or more of the weevils, I should be glad to tell you what I can about them. Any bulbs in the condition of those you sent should be burnt at once; those which are only slightly injured should be soaked in water of a temperature of 110° or 115° Fahr. for a quarter of an hour; this should kill any mites which were near the surface.—G. S. S.

TREES AND SHRUBS.

Pruning Clematis Jackmanii (*G. Olive*).—Your varieties of Clematis Jackmanii should be cut back each year to within two or three eyes of the base of last year's wood. This may be done in February or early in March, just before growth commences. If you wish your plants to cover a fair amount of space, keep a watch on the young growths and do not let them become entangled one with the other, for if you once allow them to twist their leaf-stalks together it will be next to impossible to separate them without breaking the soft shoots. By keeping the branches separate and nailing them in position occasionally a large space may be covered by one plant.

Shrubs for wide border facing north (*N. G. Hadden*).—The following subjects will do for the border you mention. Lilacs in variety, Ribes sanguineum, R. aureum, Spiræa arguta, S. canescens, S. Aitchisonii, Cytisus scoparius andreanus, C. albus, C. præcox, Laurustinus, Viburnum Opulus sterile, V. plicatum, Weigelas in variety, Philadelphus coronarius, P. grandiflorus, P. Lemoinei, Berberis stenophylla, B. Darwinii, Caragana arborescens, Ligustrum lucidum, Pyrus floribunda, Laburnums in variety, double-flowered Cherries, Almond, Spartium junceum and Cotoneasters in variety. For your bulb border you had better remove the Fig tree, drain the border well and fill up with 1½ feet of soil. If, as you say, it is heavy and rich, mix sand with the soil while you are trenching.

Peat litter and peat-loving shrubs (*Penwarre*).—It is not a good plan to spread peat litter from a stable over the ground where peat-loving shrubs are growing. A thin layer may do no harm, but a thick layer certainly will not do good. The best use to put this litter to is a top-dressing for grass; a little of it dug into ground does no harm, but it is not good material to use in quantity. The best top-dressing you can get for your rhododendrons is decayed leaves. These always keep sweet and encourage surface roots; they also prevent the border from drying rapidly in hot weather.

Propagating Euonymus (*S. C. Griffiths*).—Cuttings of evergreen Euonymuses should be taken during July and August to ensure the best results, though a certain percentage can be got to root if put in much later. Select pieces of the current year's shoots about 4 inches long, cut them to joints and insert them in a bed of sandy soil in a close, cold frame, or in pots on a bed of Cocoanut fibre in a warm propagating case. The latter is the most expeditious method of obtaining rooted cuttings, but they succeed very well under either condition. When rooted, harden off and transfer to a border out of doors.

Propagating Clematis (*A. S.*).—You can propagate the large-flowering Clematises by grafting or by cuttings. If the former method is to be adopted, stock plants are placed in a warm house and started into growth in January; the young shoots are then grafted on to pieces of root of the common Clematis (C. Vitalba). These pieces of root, after grafting, may be potted singly into 2½-inch pots, or they may be laid in rows in Cocoanut fibre in a warm propagating case. Under either condition they must be kept warm and close until the scion and stock unite until root-fibres are formed. Cuttings of semi-ripe shoots may be made in July and August and be inserted in pots of sandy soil placed in a warm propagating case. When roots are formed the cuttings should be transferred to the house and potted up singly.

THE GREENHOUSE.

Treatment of Beaumontia grandiflora (*A. J. W., Basingstoke*).—This is, as a rule, not a success if grown in pots, but it should, if possible, be planted in a well-drained border in a soil composed of two parts loam to one part of peat and somewhat less sand. It is naturally a vigorous-growing plant of a twining nature, and on this account should be trained to rafters or wires near the glass. The temperature of an intermediate house is most suited to its requirements, and in order to flower it in a satisfactory manner it should have all the light and sunshine possible. The flowers are produced on the previous year's growths, hence, as soon as they have dropped, the plant should be pruned back rather hard in order to induce plenty of lateral shoots for the next season's display.

Treatment of Carnations under glass (*M. G., Cheshire*).—You tell us nothing of the treatment given to your Carnations, but apparently they have been kept far too warm and crowded together. At all events, the plants sent are in a terrible plight, and perhaps the best course would be to burn them all. They are swarming with red spider, and in some instances badly affected with rust. Besides this they are very tall and weak. The only thing we can suggest in order to give them a chance of recovery is to cut them down to a height of about 3 inches, pick off any of the remaining leaves that show signs of rust, and carefully sponge every leaf on both surfaces with a lather of soft soap and water. Some will die, but others may recover and push out good, healthy shoots. Plenty of light and air is very essential to successful Carnation culture, and a night temperature of 45° will be quite sufficient for them.

Cinerarias going wrong (*Mrs. G., Leeds*).—An exceedingly difficult matter to advise upon, for your letter, explicit though it be, does not contain anything in the nature of a clue. We do not think that the few tiny worms have anything to do with the matter, but some cause far more sweeping must be searched for. As you say there was no frost at the time, this probable reason may be passed over. Had the plants been fumigated? If so, this is very liable to cause a shrivelling of the leaves, for the Cineraria is easily affected in this way. Another suggestion is that there may have been some deleterious substance in the water. It may have found its way therein quite innocently; that is to say, water collected from a freshly-painted roof or one covered with newly galvanised iron might be expected to injure the plants. Water, too, that has been stored in a newly-cemented tank is more or less dangerous to use. Lastly, and this is very important, is it possible for any of the sulphurous fumes from the stokehole to find their way into the house? If so, the trouble may be thus accounted for, as sulphur is so injurious to plant-life. A very tiny crack will often allow enough of these fumes to pass to do much damage.

Striking Geraniums in spring (*G. O.*).—It will certainly be an advantage to make up a hot-bed in the spring in order to strike Geraniums; but, at the same time, it is not so much assistance to these plants as to many others. The reason of this is to a great extent owing to the fact that Geraniums do not require much atmospheric moisture, and this occurs more in a made-up hot-bed than in a glass structure heated by hot-water pipes. In making up your hot-bed it will be very necessary to so arrange it that the heat does not decline while the weather is still cold, otherwise you may lose many of your newly-struck plants. Air, whenever possible, is very beneficial to Geraniums. The white Alyssum will flower the same year if the seed is sown in February in a gentle heat under glass and the seedlings pricked off into shallow boxes or pans as soon as they are large enough to handle conveniently. As the season advances they must, of course, be gradually hardened off.

ROSE GARDEN.

Pillar Rose for northern aspect (*Heather*).—Both Dorothy Perkins and Blush Rambler would succeed well in a north position. You will, of course, open out a good large hole for the Rose, as either sort will develop into a fine specimen if care be taken in the planting. Félicité Perpétue and Bennett's Seedling would be two beautiful white varieties should you prefer a white. Crimson Rambler is rather too tender to be planted in a very exposed position.

Planting Roses (*Satisfied*).—Our notes are written by various experts, and it is quite natural to expect a difference of opinion. We think you have done right in replanting those that were too deeply planted. We much prefer to keep the fine roots as near the surface as is consistent with safety, for then they are brought under the more direct influence of sun and air, which are such great factors in successful cultivation. Moulding or earthing up the Tea Roses as a protection against hard frosts is sound practice and is adopted now by most growers. This soil is levelled down when all danger from frost has gone. We thank you for your kind remarks regarding THE GARDEN.

Roses for massing (*W. B.*).—The aspect of north-east is not at all a good one for such a Rose as Kaiserin Augusta Victoria, especially as you say the position is a very damp one. You would be more successful with such varieties as Mme. Pernet-Ducher, Prince de Bulgarie or Peace. As to mixing Hybrid Perpetuals with the Hybrid Teas in order to obtain earlier blooms, we advise you to give up this idea. In the first place, the Hybrid Teas would bloom equally as early, and in most cases earlier than the Hybrid Perpetuals, and the latter would greatly detract from the beauty of the beds in the autumn. Should you still desire to do this, Mrs. John Laing would go well with Caroline Testout, and as suitable blendings for Lady Battersea and Mme. Jules Grolez we would suggest Dupuy Jamain and Suzanne M. Rodocanachi respectively.

Perpetual-flowering white Roses (*D. Morris*).—One of the most fragrant, as it is one of the most beautiful, Roses is the white La France, known under the name of Augustine Guinoisseau. With us it has been flowering all the summer, and even on November 7 the plants were covered with bloom. It is not really white, the colour being a faint blush pink, but in effect it is white. Another serviceable old Rose is Souvenir de la Malmaison, and Admiral Dewey, a blush white form of Caroline Testout, is also first-rate. You do not appear to possess Frau Karl Druschki. It is true it is not fragrant, but the purity of its handsome buds and blooms make it almost indispensable to every garden. Two or three other good sorts to add to your collection are Pharisær, Earl of Warwick, Joseph Hill, Gustave Grunerwald, Hugh Dickson, Mme. Ravary and Richmond, and most of them are fragrant. Moss Roses are rather given to attract aphis, but otherwise they are not troubled with insect pests more than other Roses. Prune them well, then cut away the eggs which the moths lay on the growths. The plant you send is Euonymus europæus.

Roses for suburban garden (*F. A. C. S.*).—You have certainly begun well in preparing the beds as you have done and you should be successful. The selection you have made is on the whole a good one. The standards could not be improved upon, but instead of Homer and Abel Carrière as bushes we should recommend Pharisaer and General MacArthur. If you intend planting the Crimson Rambler on an arch it would do all right, but do

not attempt to grow this Rose on a wall. Should you desire a good crimson Rose for a wall, plant François Crousse or Ards Pillar.

Rose for naming (*Mrs. L.*).—The Rose is certainly not Mme. Abel Chatenay. We believe it to be a Tea-scented variety named Friquet or Hybrid Tea Ma Tulipe, but it is rather difficult to say for certain, as Roses are very much out of character in the winter.

Rose for south wall (*C. P., Kentford*).—A fine Rose for such a wall would be Dr. Rouges. Other good sorts are Climbing Caroline Testout, Climbing Kaiserin Augusta Victoria, Mme. Jules Gravereaux or François Crousse. Good hardy sorts for an east border would be Caroline Testout, Frau Karl Druschki, Hugh Dickson, Conrad F. Meyer, Ulrich Brunner, Mme. Isaac Pereire, Mrs. Paul, La France de '89, Augustine Guinoisseau, Grace Darling, Charles Lefebvre, Clio, Ella Gordon, Mrs. John Laing, Zepherin Drouhin, Cheshunt Hybrid, Johanna Sebus and Pharisaer.

FRUIT GARDEN.

Apples spotted (*F. J. S.*).—The Apples are attacked by the fungus named Fusicladium dendriticum, and the scabby spots have been attacked further by fungi that carry the decay into the tissues of the fruit. All the dead shoots and branches should be pruned out of the trees, and just before the blossoms open they should be sprayed with Bordeaux mixture at half the strength used in spraying Potatoes, and again after the petals have dropped.

Muscat Grapes shrivelling (*Woodlands*).—We can only suggest that the shrivelling and decayed appearance of your Muscat Grapes has been caused by the temperature of the vinery being too low and damp since the Grapes have been ripe, and also possibly the border too wet. We have frequently seen similar results from these causes. The Alicante, on the other hand, being a much hardier Grape and one that succeeds in a lower temperature, would take no harm under these conditions.

Treatment of a Vine (*C. C.*).—The Vine should be lifted very carefully and potted without delay. As it has been standing some years in the same situation it is sure to feel the check of removal very much. A pot about 1 foot in diameter will be necessary and the soil must be of a good loamy nature. After such drastic treatment you cannot expect the Vine to fruit next year, so immediately after potting it should be cut down to within a couple of eyes of the base and the most promising shoot therefrom must be grown on for another year. When growing freely manure water occasionally is of great assistance.

Vines going back (*Fruit Trees*).—Perhaps you have overcropped them. Vines will not stand this for long. The best thing you can do (and the sooner you do it now the better) is to fork carefully and carry away the surface soil of the border until you come in contact with a good body of roots, and then give the border a 6-inch thick dressing of the best turfy loam you can command, pressing it down hard. Before applying it add to each barrowful of loam one peck of old mortar rubble and a gallon of wood ashes. In the spring you will find that new roots will soon take hold of this soil. To feed these roots during summer apply a top-dressing of well-rotted manure 4 inches deep to the surface of the border at the beginning of May, and give occasional waterings during summer. Repeat this treatment every year and you will never fail to grow Grapes of the best quality.

Cordon Pear trees (*Fruit Trees*).—They should be planted 20 inches apart and trained obliquely so as to give a greater length of stem to the tree. All the strongest shoots—the growth of last year—should be pruned back to within two buds of their base and the weaker shoots to one bud only. The terminal shoot must be shortened by one-third its length. Summer pruning: At the end of July the side shoots of the summer's growth should be cut back to within six leaves of their base, but not the terminal shoot. This should be left intact. Early in May mulch the surface of the soil with rotten manure 4 inches deep as far as the roots of the tree extend, give occasional waterings with manure water and you will no doubt succeed in growing Pears of the best quality.

Figs splitting (*H. Marshall*).—Had you continued the slight heat and warmer air provided for the Peach trees while bearing fruit, the Figs would have ripened all right without splitting. It was the cooler and damper atmosphere to which they were subjected that caused the splitting. The variety is Brown Turkey.

Black Currant shoots for examination (*Fethard*).—The shoots that you send are badly infested by the big-bud mite, which does a considerable amount of damage. Pick off and burn all the swollen buds; then in the spring, say from the end of March to the middle of May, dust the bushes at fortnightly intervals with a mixture of fresh air-slaked lime and flowers of sulphur, 1lb. of the former to 2lb. of the latter.

Cherry tree root swollen (*E. M. E.*).—The cankerous spots and swellings on the roots of the Cherry may have been caused by any one of several things, but it is too late to say from the specimen received what the exact cause in this particular instance was. In any case it had its origin in a wound which the plant has endeavoured to heal, with the result that swellings of a considerable size have been produced.

Apple shoots blighted (*P. J.*).—The mildew on the Apple shoots is American blight or woolly aphis, an insect that does a very considerable amount of harm to fruit trees by sucking the sap of the branches and causing the production of wounds that, through the constant irritation, are not able to heal. Not only does this itself harm the tree, but it allows the access of various fungi, which are able to attack the tree and cause harm themselves. A vigorous syringing with a caustic wash or, where possible, scrubbing is the best treatment for the winter; but when the leaves are on the trees this is impossible and it is best to spray forcibly with paraffin emulsion.

Grapes shanking in vinery where plants are grown (*W. D.*).—The bunch of Grapes sent for inspection had fallen to pieces before it reached our office, the berries being over-ripe and smashed up in carriage, so that we could not distinguish one berry from another, neither could we find out the nature of the spots you mention from the decayed condition of the berries. If you can send us a bunch less over-ripe we may be better able to help you. It is quite possible to grow fairly good Grapes in a vinery which is also used for the growth of plants, but not high-class or exhibition Grapes, of course. We think that the cause of your Grapes shanking is to be found in overcropping and keeping the atmosphere of the vinery too close and moist while the Grapes were ripening and after they were ripe. You were wrong in syringing the Grapes at all. They should never be syringed after the berries are set.

Keeping Grapes in bottles of water in winter (*C. S. J.*).—The object of doing this is to relieve the Vine of the strain of sustaining the crop of fruit at a season of the year when it should be at complete rest preparatory to producing a heavy crop the following year. The important point to secure in this matter, after the Grape-stems have been cut and placed in bottles of water, is to find out the place or position in which will be found the best conditions for preserving the Grapes for the longest time. Various positions have been tried. We remember some years ago the practice was common of hanging the bottles in the vinery to make it appear as though the bunches were still growing on the Vines. This practice is now quite obsolete, as it was found that too much light and too frequent change of temperature proved most inimical to the quality and long keeping of the Grapes. The best way is to place them in a dark, comparatively dry room where the temperature will range day and night between 45° and 52° Fahr.

Fruits on clay soil (*F. R.*).—The list of fruits sent is a very good one, but in Apples you have but one cooking variety, Prince Albert. We should add to that one, for earlier use, Stirling Castle. Pear Doyenné du Comice fruits best on a wall. It is not a free bearer as a rule, but of course the fruits are of delicious quality. Still, you would probably find Louise Bonne of Jersey better for your purpose. Jefferson is a high-class dessert Plum and is best on a wall, but it will do well as a pyramid or half-standard on warm soils. The other Plums are good for cooking. Kentish Bigarreau is a good Cherry, but the tree when in fruit must be netted over to protect from birds. We have not heard of Victoria Regina Red Currant. You had better have Raby Castle. Of Gooseberries get for green berries Keepsake and Lancashire Lad, and for flavour Langley Beauty and Whitesmith. The other things will do well. Plant rather shallow and elevated or on mounds on clay soil so as to keep the roots near the surface, feeding them with top-dressings of manure, gritty soil such as street sweepings, or well-decayed garden refuse.

KITCHEN GARDEN.

Celeriac with brown markings (*Miss W. G. B.*).—The Celeriac has been attacked by the Celery stem fly, which has tunnelled into the swollen part of the stem and left a brown trail wherever it has gone, the decay having entered sometimes a considerable distance into the tissues. The insects pupate in the soil, and this should be dug so as to deeply bury the top layer. If the attack has been severe, the crop should be grown as far as possible away from its present site next year.

Celery diseased (*F. W. C.*).—The decayed tissues of the Celery are teeming with bacteria, and it is probably these that have continued the work begun by some agency that caused the death of the young leaves in the central part of the plant. The trouble usually appears to follow upon water finding its way down into the heart of the plant.

MISCELLANEOUS.

Grubs fastened to woodwork (*L. A. J.*).—The grubs which you found fastened to the woodwork of your greenhouse are the chrysalides of the common large white butterfly (Pieris brassicæ). The caterpillars had, no doubt, been feeding on some plants close by. Each chrysalis that you kill will diminish the number of butterflies next year, and therefore there should be fewer caterpillars.—G. S. S.

Transplanting Bracken (*A. W. Raydon*).—You will find the Bracken a by no means easy subject to deal with, and "sods" which not infrequently do not contain the growing point of the rhizome or rootstock, are by no means the best. At the present time the growing point is traceable by reason of the old fronds, and such roots may be dug up and carefully replanted at once. Frequently the old roots, if laid in a heap of leaf-soil, will start to grow quite freely, and such as will readily transplant. You know, of course, that in certain instances the plant roots very deeply, and that such roots are very susceptible to injury. Ling may be planted now or in April.

Daisies on lawn (*M. A. P.*)—What is commonly advertised as Watson's Lawn Sand is that most commonly used to sprinkle rather thickly over lawns to destroy broad-leaved weeds such as Daisies; but, none the less, if too freely used, burns the grass also for a time. Still, because it seems to contain sulphate of ammonia, it becomes later a manure, and where grass is not destroyed leads to improved growth. But we advise, all the same, pulling out the Daisies with old steel forks, then top-dressing the bare places with fine soil, and in April next sowing proper lawn grass seed, well rolling it in. If you could face the expense of having all the worst Daisy patches on your lawn lifted, each turf of 3 feet long and 1 foot wide being laid out on a table, the work of extracting the Daisies would be easy and efficient. Then have the turves relaid. But certainly, whichever course you take, top-dress with fine soil and sow seed as advised.

Hedge for wind-screen (*W. H. S.*).—The Hornbeam would certainly be one of the best subjects you could use to form the hedge referred to. It is of fairly quick growth, can be trimmed to any reasonable extent, and forms a dense hedge or screen. You should be able to obtain good sturdy plants 5 feet to 6 feet high from a nursery, and if they are carefully planted they will become established the first season. It is very necessary that the plants chosen have been transplanted regularly, as they can then be moved without risk. The planting may be carried out now in open weather. The distance apart at which the plants are put will depend upon their size, but for good established specimens 18 inches will be very suitable. An even more decided wind-break may be formed if the Hornbeams are planted in two rows, anglewise, thus: ***** As yours is such a draughty spot, perhaps this last-named method will be the best.

Information about a fountain (*A. Mason*).—The best use to be made of the water supply would be to form a cement basin as a receiver for the water, the margin of the basin to be so constructed that rockery plants could be inserted therein to trail over and furnish the sides. In the water aquatic plants, such as Nymphæas and Sagittarias, could be grown, which at flowering time would be most effective. A few gold-fish would add a further charm to the water. The water depth should not be less than 20 inches. The upright supply pipe could have fixed to it at its extreme point a reducing jet with tap, a rose spray with fine holes, or a circular pipe with perforations could be fixed. The upright stem of the pipe could be hidden with a rockery arrangement of tufa, and a small receiving basin for the water fixed at 3 feet or 4 feet high, the water overflowing and tumbling into the lower basin in turn. All you would require would be an overflow pipe for the latter, and with the water under control not much waste would be experienced.

Various questions (*A. B. C.*).—(1) Escallonia rubra. (2) Ficus stipulata (F. repens). (3) Ixora floribunda. The Ixoras are stove flowering plants and grow well in a compost of peat, leaf-soil and sand. It is advisable to cover the vinery border outside with light litter during the winter, especially if the Vines are started early. The Crotons should be kept till spring and then cut back. When the young shoots are large enough they may be taken off and rooted in a close, moist case in the stove. If there are any tops on the plants now, they might be taken off as cuttings and rooted in the same way. The best time to propagate Arabis is to split up old flowering plants directly after they have finished blooming. The small pieces should be planted out in nursery ground, and will make nice plants by the autumn ready for putting out in the beds. Cuttings may also be struck any time during the summer. Allamandas are easily propagated by means of cuttings, which will root at any time of the year in a bottom-heat of from 70° to 80°. The usual time, however, is in spring. Use a compost of sand, peat and leaf-soil.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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A WILD GARDEN OF SHRUBS.

THE problem sometimes presents itself of securing a suitable subject or subjects for covering dry banks which will give the maximum amount of beauty for the minimum amount of trouble. It is not difficult to find effective plants for such a position, providing it is possible to work the ground well before planting and regularly cultivate it afterwards; the same plants would, however, be of little use if planted in poor soil and left to take care of themselves.

In several parts of the gardens at Kew the problem has been faced with satisfactory results, and banks, which at one time were sparsely covered with poor grass, are now picturesquely clothed with low-growing shrubs. The soil in these particular positions is composed of light loam and gravel, some of it extremely poor. To deal with it successfully it was only possible to plant such things as would be likely to thrive without any special cultivation, for it was not possible to deeply trench and enrich the various areas. The ground was dug over to bury the grass, and that was practically the whole of the preparation it received. The plants selected for the purpose of covering the mounds were double and single Gorse, dwarf Gorse, Lavender, Rosemary, Cotton Lavender, Rosa wichuraiana, Cotoneaster buxifolia, Spartium junceum, Cistus laurifolius, C. recognitus, C. ladaniferus and a few other species, the common Savin (Juniperus Sabina), double-flowered Brambles, Potentilla fruticosa, Berberis Aquifolium and B. stenophylla.

The mounds are dotted with large-growing trees, so they are not ideal places for gardening. The majority of the plants used, however, blossom more freely when somewhat stunted wood is formed than when rank branches are produced. This is specially applicable to the double Gorse and the Cistuses, for they are never more satisfactory than when growth is slow and the plants have a somewhat stunted character. When planting the groups care was taken to form a natural-looking, wavy outline; then the various shrubs were planted in irregular patches, here a large mass of double Gorse with an adjoining patch of Lavender, there a group of Cistus laurifolius with Rosemary for its neighbour, or, again, a mass of dwarf Cistuses or some other subject backed up with Spanish Broom or faced with a large mass of Cotton Lavender. The union of the various groups is not effected by means of hard or harsh dividing lines, but each particular plant is allowed to advance and recede here and there, so that no distinct dividing line is detected. As the majority of the plants are evergreen, they are effective during the whole of the year; while in spring, when the Gorse is covered with a blaze of golden blossoms; during early summer, when the Cistuses are in full bloom; or later, when Lavender and Spanish Broom are in flower, the effect is very striking.

The only trouble caused by such groups is keeping the ground clean until the plants grow large enough to smother any weeds that appear, cutting such as Lavender over after flowering and cutting down the Gorse if it becomes too large. The latter is, however, only likely to occur if the ground is loose or rich. Groups such as these constitute a very pleasing phase of wild gardening and are infinitely preferable to the indiscriminate planting of shrubs in some out-of-the-way corner which is styled the wild garden, where they are left to fight the battle of life out with coarse-growing weeds of the Nettle and Dock type. In gardens, of course, where the soil is suitable the above selection of plants may be added to by the inclusion of the various hardy Ericas and Callunas. It is not, however, advisable to plant untested subjects indiscriminately. The shrubs mentioned above have proved satisfactory, and, as is instanced by the cases alluded to, they are sufficient to form an effective covering for banks which have few natural advantages.

W. Dallimore.

OUR WAYSIDE TREES.

The advent of the motor-car and the cry for dustless roads is bringing a fresh peril to our wayside trees. It surely cannot be sufficiently realised, I think, or we should not hear with equanimity of the proposals that our roads should be rendered dustless and waterproof. We may pay too dearly for even a good thing, and, granting that the absence of dust or slippery mud is desirable, it must be remembered that the tarring and waterproofing of our roads means death—a death, no doubt, more or less lingering, but none the less certain—to all trees whose roots are sealed up under an airless and waterproof covering. Wiseacres talk glibly of Westrumite and other compounds for reducing dust on the roads; but even these palliatives are injurious after a time. So it behoves all tree-lovers to be on the alert to prevent or minimise the damage that surely will ensue if such proposals are carelessly carried out.

The real difficulty is this: that so many causes can mask the consequences of tarring and asphalting roads that it requires an expert to explain where the true danger lies. For instance, in low-lying ground where there is much moisture in the subsoil at all seasons trees will live and even thrive with only a small air-space near the trunk; but on dry soils and steep slopes, when once the ground has got thoroughly dry the moisture cannot be renewed sufficiently even by waterings with the hose, an expense

our ratepayers, moreover, would resent, and so the trees will first stand still, then dwindle and die back till they become an eyesore.

The Plane tree is so robust and drought-enduring that it will stand more root suffocation than any northern tree that I know of, and it is in consequence pointed out as a proof of how little harm is done by asphalting or cementing a road. The Plane tree, however, does not thrive in the colder and northern parts of England; and, moreover, who would wish to have but *one* tree for our roadsides, especially one that is so late in leafing and yet subject to any late spring frost? Our native Sycamores, Elms, Ash trees, and especially the Service Tree are all useful and excellent for roadside shelter in the northern parts of the kingdom, and the Lime tree, where it can get sufficient moisture, is, perhaps, the most beautiful of all. None of these trees, however, will live long with their roots covered up, and it would be hopeless to plant young trees that could never prosper. Country roads, where there is a good ditch on either side to supply moisture and a certain amount of air to the roots of the trees planted on the verge, may alone be waterproofed without injury to the wayside trees. But on rapid slopes and dry, sunny hillsides, how can moisture get to the roots in sufficient quantity? Many instances can be adduced to show how fatal, even when slow, in the case of fine, deeply-rooted and well-grown trees is the drought and suffocation that follows any tarry covering, whatever name it may bear. In the neighbourhood of great cities and smoky manufacturing towns it is especially necessary to sound a warning note. Vegetation has already so many things to contend against in the atmosphere that it is the more necessary to take care of the roots of trees, particularly if they are well grown and old. They can never be replaced if lost, but with care they may be preserved for another generation. How much forethought is required may be exemplified by examining the dying trees in the mining districts. They are more often killed by the drying-out of the soil from the drainage-pumps of the collieries than by the pollution of the atmosphere. EDWARD H. WOODALL.

NOTES OF THE WEEK

FORTHCOMING EVENTS.

*** *The dates given below are those supplied by the respective Secretaries.*

January 26.—Royal Horticultural Society. Exhibition of Flowers, Plants, &c., 1 p.m. to 5 p.m. Lecture at 3 p.m., by Mr. W. D. Scott Moncrieff, on "A Method of using Domestic Sewage in Horticulture." Admission, 2s. 6d. Royal Horticultural Hall, Vincent Square, Westminster.

February 8.—National Fruit Growers' Federation Annual Meeting. Royal Horticultural Hall, Vincent Square, Westminster.

May 6.—Royal Gardeners' Orphan Fund Annual Dinner, the Duke of Rutland presiding.

Mr. W. Botting Hemsley's new address.—Mr. Hemsley wishes it to be known that his address is now 24, Southfield Gardens, Strawberry Hill, Middlesex.

The production of Cascara sagrada in England.—The current issue of the *Kew Bulletin* contains some most interesting details concerning the culture of Rhamnus purshiana and R. californica, from the bark of which the useful drug known as Cascara sagrada is manufactured. These trees and shrubs respectively have been in cultivation at Kew for many years, and owing to notice having been received of an approaching shortage in the natural supply from North America, the authorities had a small tree of R. purshiana cut down for analysis. This was undertaken by Messrs. Burroughs and Welcome, 5¾lb. of dried bark taken from the tree being worked up into tabloids. The report was that "the present extract is indistinguishable in its action from that made from American bark," and a further letter from Messrs. Burroughs and Welcome stated that "the physician to whom your special Cascara was submitted reported it to be equal to the average of tabloid products from bark grown in America." Although both species yield the drug, R. californica only grows as a shrub at Kew, but R. purshiana attains tree-like dimensions, and both are quite hardy. As a shortage in the supply of Cascara may be expected in the near future, the cultivation of the last-named in this country may be worth attention from a commercial standpoint.

Scottish Horticultural Association.—The notices issued prior to the annual general meeting of this association, on January 12, contained, in addition to a note of the business before the meeting, several items of interest to its members and the public. No fewer than forty-four meetings of the council or committees were held during the past year, a point which says much for the activity of the members of these bodies. Then a statement of the membership showed a gratifying net increase of fifteen, the total number of members being 1,305. An abstract of the accounts showed that the regrettable loss of £156 1s. 6d. on the Chrysanthemum show had been partly met by other sources of income, and that the net falling-off of the funds only came to rather more than £99, not a serious amount for a body still having a credit balance of £902 5s. The syllabus of subjects for the meetings during 1909 was also added, and it gives promise of some interesting meetings for the members of the association.

Croydon and District Horticultural Mutual Improvement Society.—The annual report and statement of accounts for 1908 has now been issued and the officers elected for the present year. During the past year twenty-two meetings were held, and at most of them papers on horticultural subjects were given. The exhibitors of produce at these meetings showed a decided improvement in number and the high quality of the subject shown was well maintained, four members, viz., Messrs. A. Edwards, M. E. Mills, F. Oxtoby and C. Thrower, gaining the maximum number of points throughout the year. During the year £1 10s. was collected at the meetings for the Gardeners' Orphan Fund, a praiseworthy example which other societies might adopt. We are pleased to note that the financial affairs of this unique and vigorous society are in a satisfactory condition, and we wish it continued success in the good work it is doing. Mr. Harry Boshier is re-elected hon. secretary, and we think the duties could not be placed in better hands.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Hybrid Freesias.—One of the prettiest and most welcome exhibits at the Royal Horticultural Hall on the 12th inst. was the delightful group of hybrid Freesias from Mr. Herbert Chapman, Rye, Sussex. At any season of the year the elegant and fragrant-flowered sprays of these plants would be welcome; but from Christmas onwards they are doubly so, and, whether as cut flowers or pot-grown examples for the sitting-room, we have few things more precious or more deserving of general cultivation. I remember the occasion in 1907 when the variety which bears Mr. Chapman's name received by a unanimous vote an award of merit from the Royal Horticultural Society, and while I was at that time greatly impressed by its distinctive beauty and merit, I regard it a still greater acquisition to-day as I renew my acquaintance with the plant from time to time. In the first place, its delicate yet pronounced fragrance is a great charm, and a thing of which one rarely gets enough; while that rare colour suffusion of deepest orange and canary yellow renders this exquisite variety irresistible in the extreme. Freesia Chapmanii is practically a thing alone, and, while standing at the head of an interesting group, has good companions following in its train and in shades of colour that embrace yellow, white, mauve, pink and violet, of which more will be heard anon.—E. H. JENKINS, *Hampton Hill.*

Muscat of Alexandria Grapes.—The note in THE GARDEN on page 530, Vol. LXXII., does not quite settle the question as regards other varieties that may be growing in various parts of the country, as only recently I saw some splendid bunches of Grapes that were entirely distinct from any of the varieties "X. Y. Z." notes; indeed, except as regards their colour, shape and size they were not Muscats at all, and this causes me to say I do not think the matter quite cleared up. As far as I can see, the best way would be to have every kind and any so-called Muscats given a trial at Wisley. When grown under the same conditions it would be easy to settle this matter. To me it appears very strange that a number of well-known experts should decide on the 8th ult. that the bunches were not Muscats, whereas on the 22nd ult. they decided that a bunch from the same Vine decidedly was, when they had others for comparison, and went even further and said that the disputed variety was the best. I am aware the bunch on the latter occasion much more resembled the well-known variety than those previously shown. I would ask: Have any of the well-known growers of Muscat of Alexandria noticed during the last few weeks, especially Christmas week, a large quantity of splendid Grapes in the market, just the size, colour and shape of the well-known Muscat of Alexandria—splendid amber berries, sweet and very juicy, but having no Muscat flavour whatever? The correct name I am unable to ascertain, but I believe they come in quantity at this season from Spain, and certainly anyone could readily mistake them for Muscat of Alexandria and they are often sold as such.—GROWER.

——Recently it was stated in THE GARDEN by "F. R. H. S." that the only really distinct White Muscat from Muscat of Alexandria was Cannon Hall Muscat. It is unfortunate in relation to that well-known but far from satisfactory Grape that it is uncertain, whether raised as a seedling or the pro luct of one of those sports which have not infrequently occurred on Muscat of Alexandria of a similar form. The difficulty experienced in inducing the Cannon Hall form to set has, so far, largely been the chief objection to growing it, although Mr. Kay of Finchley has surmounted that difficulty with considerable success. Mr. Kay is reported to have said that he kept his Vines rather on the cool side when in flower, and thus secured good sets. But some years since there occurred a sport of the Cannon Hall form on a Muscat of Alexandria worked on a Lady Downe's stock at Mr. W. Cole's vineyard, Feltham, which was propagated and a house of Vines planted; these did fairly well, but some better than others. A second generation from the best was propagated and planted, and now these do admirably and the bunches set with remarkable freedom. This is a greatly-improved Cannon Hall, which Mr. Cole alone possesses.—A. DEAN.

Spring flower gardening.—While this subject is, naturally, creating much interest just now, it may be well to recall the earlier efforts in providing spring flowers in beds by that pioneer of such gardening, Mr. John Fleming, then of Cliveden. It was in the month of May and near to its end, in the year 1866, nearly forty-three years ago, that I saw in all its beauty then the colour effects that famous gardener had obtained at Cliveden. Just then also the late Queen Victoria and her young family were in residence there. The bedding

was on a large scale, and, looked upon from the elevated terrace fronting the mansion, showed big masses of crimson and yellow Wallflowers, blue Forget-me-nots (Myosotis sylvatica), Silene pendula, Limnanthes Douglasii, some bedding Pansies and a few other simple hardy plants. Naturally, these masses were rather flat and formal, and if containing no bulbs—for those spring flowers in that day were a long way from being so universally grown as now—the beds in any case were the progenitors of what has so widely followed; and while there may be diverse opinions as to what constitutes taste now in arrangement, certainly all must rejoice that spring flower gardening is, all the same, so beautiful.—A. D.

The forthcoming "Garden" Show.—I write to express the pleasure with which I notice that you are encouraged by the success of last year to hold another exhibition for readers of THE GARDEN during the coming summer. I feel sure that I am right in thinking that you will welcome exhibitors from a distance and, indeed, are anxious to do all in your power to encourage such exhibitors to take part. May I, then, suggest a simple way in which much might be done to realise this end? It is probable that there are many whose experience is confined to local shows and may be deterred from competing by ignorance as to the best way, even if able to give personal attention to the matter, of conveying exhibits to a distance. Still greater diffidence will be felt by those who would have to be content with entrusting their exhibits to the handling of carriers, though they would have the fullest confidence as to the staging after arrival. I would suggest that it would be a great encouragement and help to such readers if you could see your way to publish occasional notes on the best ways of transmitting flowers and fruits, especially Sweet Peas, herbaceous plants and such fruits as Raspberries. Some authoritative definition of the connotation of "herbaceous" also would be helpful. I trust you may be able to give these suggestions your kind consideration.—E. W. C., *Thirsk.* [The points raised by our correspondent shall have due attention.—ED.]

—— Mr. Dean says the enforced inclusion of White Currants seems likely to limit the competition. I doubt it. Most people who grow Currants at all generally include a few bushes of this excellent sort. I would rather see a dish of well-grown White Currants shown than a bunch of poorly-grown Grapes. With regard to the classes for Onions, Mr. Dean says it is a question what constitutes a spring-sown Onion. I take it to mean any Onion raised after the New Year, no matter how. Mr. Dean would also like to see the class for Intermediate Carrots replaced by something else, being too early in the season for these roots. I am sorry, but I hope his request will not be complied with. I am sure some creditable specimens were shown on the last occasion. I do not say so because I had the good fortune to secure a first prize, or that I intend to try again, but it is a vegetable I delight in growing. It would be a difficult matter to make a schedule to suit everyone, so I vote to leave very well alone. There is no doubt that readers' suggestions were carefully weighed up and the schedule prepared by very capable men. We had a pleasant day last year and I hope we shall again.—A. C.

Triteleia uniflora in the greenhouse.—For the embellishment of the greenhouse at this dull season, nothing succeeds better than this easily-grown little bulb with its delightful starry flowers varying in colour from white to porcelain blue, which are successively grown up over a period of from twelve to fifteen weeks. The cultivation is extremely simple, pots or hanging baskets suiting it admirably with a compost of loam, leaf-soil and sand. I think a basket is preferable owing to the pendulous habit of the flowers, which show to greater advantage when suspended from the roof. For this purpose the bulbs are best started into growth before being placed in the receptacle in which they are to flower. Lay the bulbs in damp moss or partially-decayed leaf-soil about the middle of September, keeping them in a cool, shady position, and in three or four weeks they will be sufficiently advanced in growth for the purpose in view. By this means a basket will be furnished with foliage and flowers from bottom to top. If pots are more convenient, seven or eight bulbs in a 6-inch pot give very good results. After potting they should be placed in a cold frame (affording water as required and excluding frost) until the end of November, afterwards introducing them into a temperature of about 55°, when they will begin to throw up their dainty little flowers and continue to do so until early April. After flowering they may be planted out permanently, choosing a warm, sheltered aspect—if such a spot can be spared on the rockery, so much the better—or, when the bulbs have gone to rest, they may be shaken out of the soil and stored until potting time comes round.—J. O. EDWARDS, *Plâs Isâf, near Ruthin.*

Snowdrops for table decoration. It is safe to assume that Snowdrops are universally beloved as seen growing in the open garden, but it is rare that one encounters them gathered and used for decorative purposes indoors, yet

SNOWDROPS, IVY AND MOSS AS USED FOR TABLE DECORATION.

there are many ways in which they may be so utilised. The illustration shows a bunch in a small vase, the latter being surrounded by green moss in which sprays of small-leaved Ivy are intertwined. This combination of moss, Ivy and Snowdrops is a most pleasing one, and those who have to decorate tables during Snowdrop time might easily extend the idea. Without a green base of this description the Snowdrops do not show up well on a white cloth.

Snapdragons.—The illustration so admirably rendered and presented in THE GARDEN for January 2 of the beautiful forms of Snapdragons we now have, and which I have often seen in the great seed farm of Messrs. Sutton and Sons at Reading, should help to draw wider attention to them than even yet exists. What a remarkable development has taken place in this simple, old-fashioned flower, and what a wealth of beauty as well as variety of colours are found in them. If all are lovely, and such is the case, the new pink, carmine, apricot and orange red hues stand out as specially so. I once suggested that a charming bed might be made from Antirrhinums alone by carpeting them with the Tom Thumb White Queen, then among that planting the medium height pink, and still further amidst those the tall deep crimson. Of course, with several distinct colours in each of the three sections the arrangement could be as many times varied. But to have a fine show of Snapdragons under any conditions it is only needful to purchase a few packets of seed, sow under glass in April, have strong plants to dibble out into beds or borders at the end of May, and a brilliant and long-enduring floral display soon follows.—A. D.

New Potatoes early in January. It would be most interesting if Mr. Johnson, who sent new Potatoes for the Editor's Table, would give other readers of THE GARDEN his method of producing new Potatoes so early in the year and what temperature he grows them in the sheds.—GEORGE W. KING.

Scent in Rose Caroline Testout.—I was much interested in the article on page 633 of THE GARDEN in reference to Roses Konigin Carola and Caroline Testout, the author of the article writing over the initial letter "P." I was much surprised to read at almost the finish of his article on page 634 the following paragraph: "Although some individuals profess to being able to detect fragrance in Caroline Testout, I must say I cannot do so, and unfortunately the newer Rose has little." Something must be wrong somewhere. I have grown Caroline Testout since its introduction, both in pots under glass and in the open, and I must say my plants *inside* have a decided perfume after the style of the old Cabbage Rose, although not in such a marked degree. I have not noticed those in the open, but will not fail to do so at the first opportunity.—EDWARD F. KEMP, *6, Avenue Road, Clapton.*

Perpetual or American Carnations.—I do not take up my pen in opposition to the Rev. J. Jacob's splendid article in a recent issue of your widely-read paper, but feel that he is opposing his own desires by applauding the adoption of the name "American Perpetual Carnation," when the society expressly formed to guard the interests of this plant has definitely selected the name "Perpetual-flowering Carnation." What claim has America upon this plant more than France, which country, as Mr. Jacob confirms, was first to give the world the "Remontant" Carnation, which has supplied the basis upon which both British and American cultivators have worked? Even the variety Mrs. T. W. Lawson is a half-caste French Carnation, and Enchantress is a first cousin to the French stock. These, as we all know, were raised by Mr. Peter Fisher (a personal friend of mine), who himself is a Scotchman. Several American raisers have used such varieties as Winter Cheer and Miss Jollif to improve their strain. We hear that the Carnation is booming, but we are on the eve of a still greater boom which, with the further improvement of the plants as regards habit of growth, formation of flower, stem and calyx, will pass through all civilised countries. To repair and strengthen the scent will take years of hard work. As yet we have but tasted of a few new colours or shades of the same, which the hybridist sees faintly looming in the distance, varying shades of yellow, buff, bronze, purple, mauve, and dare we say blue, while fancy varieties will extend and strengthen public interest in the Perpetual-flowering Carnation. When we think of the present-day imperfect varieties, coupled with their comparatively short lives (because so different to a Rose, the Perpetual-flowering Carnation deteriorates and requires replacing after being in commerce from six to eight years), we realise the gigantic work left for the Carnation enthusiast and expert to do, and the best varieties from several countries will be required to achieve this end. So let the name Perpetual-flowering stand, and perhaps the world will owe Britain the greatest debt of all for varieties much finer and far more glorious than we have even thought of as yet. As author of a little book which is named "The Perpetual-flowering Carnation," perhaps one has a very strong personal interest in this name, which, at least, does describe the plant.—MONTAGU C. ALLWOOD, *Bush Hill Park, N.*

THE FRUIT GARDEN.

APPLES GROWING AT HIGHGATE.

THE Apple tree shown in the illustration is growing in Mr. and Mrs. Platt's garden, Ken View, Highgate. At the time the photograph was taken the tree was carrying eighty-five splendid fruits, the heaviest of which weighed three-quarters of a pound, and several turned 10oz. A tree of New Hawthornden was carrying seventy-five good fruits at the same time. Some fruits had fallen off both trees through previous winds. I think these trees conclusively prove the suitability of Highgate as a fruit-growing district. All our trees, I may add, are young ones, having only been planted about six years. C. TURNER (Gardener).

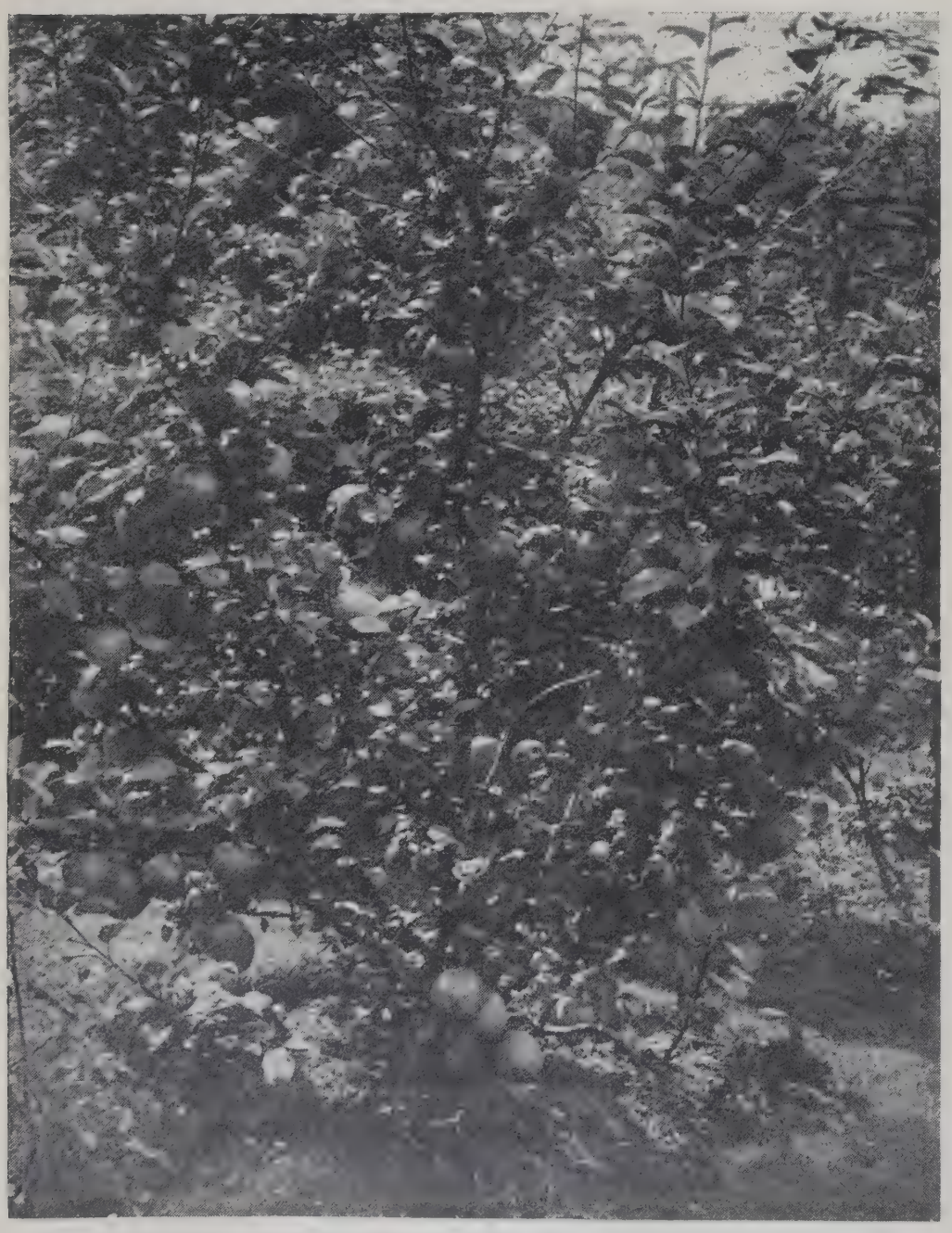
Ken View, Highgate.

FRUIT NOTES.

PRUNING.—As regularly as year succeeds year fruit-growers are strongly urged to get all the pruning of their fruit trees in the open quarters completed before Christmas, and with equal regularity this is seldom accomplished. In many instances this may be inexcusable, but in the vast majority it is a matter of simple impossibility to finish the task by the time named. One does not desire to question its desirability, but it is certainly not an imperative point in successful fruit culture. Provided that the pruning is carried out intelligently, it does not make any material difference to the results achieved whether it is done in the autumn or very early in the new year; and, therefore, those who have still work to do in tree-cutting should put it in hand whenever the weather is favourable and bring it to a conclusion as soon as possible. Each tree should be treated on its merits as an individual, and any peculiarities which it may have in cropping must have proper consideration, or the results will not be as gratifying as they ought to be. The first essential is to admit light and air, and the removal of growths should be carried to such an extent that when the tree is in full leaf it will be possible to see right through it from any point. This means that every bud on all the wood will have the benefit of unobstructed light, and will be perfect as a consequence.

SCIONS FOR GRAFTING.—As the work of pruning the Apples and Pears proceeds, the operator should keep in mind whether or not he requires any scions for grafting as soon as the sap commences to rise in the stocks in the spring. If there are old trees producing no fruits, or the crops are worthless, then grafting will be necessary to restore them to a profitable condition, and the scions should be selected from the prunings. Many more of each variety than will be actually wanted should be chosen, and they must be tied in bundles and thrown under a north wall or similar cool position, where they will remain in a dormant condition until they are wanted for use. They can be cut to the proper length at the outset or not at the convenience of the grower, but it is usually better to cut when wanted. It must be clearly borne in mind that one of the secrets of success in grafting is to have the scions dormant at the moment of insertion, although it is imperative that the sap shall be rising in the stock.

PLANTING.—The leaves remained on the trees so late in the past autumn that the task of getting the planting finished before Christmas was more than ordinarily difficult, and there is little doubt that many trees now wait to be placed in their permanent positions. Whenever the weather is favourable — that is to say, when the soil is neither frozen nor sodden with wet—the operation should be pressed forward with all speed, as the earlier the roots can be got in the better progress will the tree make during the forthcoming season. In all cases wide, shallow stations should be formed for the accommodation of the roots, and, unless it is absolutely necessary, no manure should be used in such a position that the young roots will come into contact with it. Between each layer of roots firmly work sound, fibrous loam if it is at command, and, if it is not, use the best soil that can be procured for the purpose, so arranging matters that, when the work is done and all the roots are covered in, the uppermost layer will not be more than 2 inches beneath the surface. A mulching of short, sweet manure may be placed on the top if it is considered necessary or desirable, or it can be withheld until the soil has become warmed by the sun. H. J. W.



APPLE LORD SUFFIELD GROWING IN A HIGHGATE GARDEN.

THE KITCHEN GARDEN.

SOME GOOD VEGETABLES AND SALADS FROM SEEDS.

LAST summer was comparatively favourable for the culture of vegetables and salads, and there were a few varieties of more than ordinary merit, some new and some old, that did especially well, and mention of these will doubtless be useful for the guidance of those who are in doubt as to what varieties to purchase.

Taking Peas first, those which did best were Webb's Surprise, Carter's Daisy, Glory of Devon and Gladstone. The first-named is a new early one raised by Messrs. Webb of Stourbridge, and is, I think, destined to become a general favourite. It is of dwarf habit, growing no more than 12 inches high with me, but the haulm was simply covered with good-sized pods, each containing seven or eight large Peas of exquisite flavour. Carter's Daisy, of course, is too well known to need any description; the crop was enormous and followed Webb's Surprise. Glory of Devon is perhaps not so well known; it is an immense cropper and grows about 3 feet high, the quality being medium. Gladstone was employed as a late variety, and well maintained its high reputation. Although the row commenced to crop at the end of August, good pods were gathered from the same plants the second week in October. For quality this Pea takes a lot of beating.

Among green crops Webb's New Leader Cabbage and their Pride of the Market Brussels Sprout called for special mention. I have never seen Cabbages ready for cutting in so short a time as the variety now under notice. It forms beautiful conical-shaped heads of firm texture and excellent quality. Although the Brussels Sprout is described as a good market variety, it is also excellent for garden crops, as the quality is good and the sprouts button up well and are placed closely together on the stem.

Great improvements have been made among Runner Beans during the last decade, and three varieties I grew last year were all first class. These were Carter's Scarlet Emperor, Sutton's Prizewinner and Webb's Exhibition. All are very long-podded varieties, but it would be a most difficult task to say which is best. Certainly all are well worth growing, as they give enormous crops of high quality.

A Carrot which I had not grown before, but which will again find a place, is Carter's Early Market. This is a Shorthorn variety that forms roots for pulling very quickly, and it is of superb quality. This was sown thickly in a small bed, and as soon as the roots were as large as the little finger pulling commenced, thus thinning the rows. From this small bed a good bunch was pulled twice a week through the summer, and in the autumn over a peck of medium-sized roots were lifted. Early in January these were still of excellent quality, so that in addition to being a good early variety this Carrot may be regarded as possessing good keeping qualities.

Those who have only small gardens, but who like Marrows of first-class quality, should grow Sutton's Pen-y-byd. This is a bush variety, hence it does not take up much room, while the plants are continually producing medium-sized round Marrows of exquisite flavour.

Among summer salads Lettuces naturally occupy a prominent position, and the variety that pleased me most last year was Carter's Holborn Standard. This is a Cabbage variety of very high merit. It turns in quickly and forms large, solid, handsome hearts that are exceedingly crisp, more so than the majority of Cos varieties, and, most important of all, it does not quickly run to seed in hot weather. Of Radishes, Webb's Ruby Gem and Climax did well, and both are of good quality, the first-named coming in very early.

The varieties mentioned are in no way exhaustive, but are mentioned as giving excellent results under ordinary conditions of culture. H.

BROAD BEANS AND THEIR CULTURE.

THE Broad Bean cannot be regarded quite as one of the aristocrats of the vegetable garden, and for this reason probably it does not get the attention from cultivators that it deserves. Like nearly every other vegetable, it has been very much improved during recent years, equally in size of pod, flavour and cropping qualities, and although moderately good results can be obtained by indifferent or medium-class culture, it is a vegetable that repays all the attention that one can give it.

Undoubtedly it prefers a soil that contains a preponderance of clay, but with manuring, and especially for early crops, good results can be obtained from soil of a lighter or more sandy character. As the plant is a deep-rooting one, the bed to be planted should have been trenched at least two spits deep during the winter months, or, of course, early in the autumn where November sowing was to be done. Spring sowing is, however, now most generally adopted. Between the two spits a good layer of well-rotted manure should be placed, and at the time of sowing a dressing of superphosphate of lime, 4oz. to the square yard, lightly hoed into the surface will prove of much benefit.

Usually the first sowing is made at the end of January, following with other and more general sowings during February and March. The seeds are generally sown in double rows, *i.e.*, two rows 9 inches to 1 foot apart, with a distance of 2 feet between the double rows, and the seeds placed 8 inches asunder in the rows; 2 inches to 3 inches is a good depth to sow. As mice are very fond of the seeds, precautions must be taken to check their depredations, a good plan being to immerse the seeds in paraffin for a few seconds and then, while still wet, roll them in red lead so that each is coated with it. Some growers prefer to make a rather thick sowing in a specially-prepared bed in January, and then transplant a number of the seedlings when they are about 2 inches high. If done with care this system answers very well.

Frequent hoeings during the growing period will be of the greatest benefit to the plants, and when a good crop of flowers have opened it is wise to pinch out the tops of the plants, as this throws more energy into the pods and frequently acts as a check to black aphis.

Broad Beans are represented by three types, viz., Mazagan, Longpod and Green Windsor. At one time the first-named used to be largely sown in the autumn for early supplies, but now most cultivators rely on early sowings of the Longpod section, the Windsor type following these for later crops. There is no doubt that the latter possesses the best quality, but the Longpods are excellent if properly cooked. Of these Sutton's Mammoth and Webb's Kinver Mammoth Longpod are good, and among the Windsor section, Sutton's Giant Windsor, a very large-podded variety, and Green Windsor can be confidently recommended.

THE ROSE GARDEN.

SEASONABLE NOTES.

THERE is really no "off season" for the enthusiastic rosarian. While outdoors the Rose garden wears a dreary appearance, under glass in the early forcing-house the advancing flower-buds give us a foretaste of summer. That delightful Rose Richmond is a grand acquisition for winter flowering, and will evidently become very popular. All who grow indoor Roses on the planted-out system, which is by far the best, should provide for a supply of Rhea Reid, the new American novelty, which is said to surpass both Liberty and Richmond for winter blooming.

Ventilate very carefully just now and during the next few weeks. The bright sun and cold, cutting winds will often play havoc with the tender growths. When a bright day is anticipated, be prepared by affording a very little air on the top ventilators before the temperature rises too rapidly. Artificial heat may be reduced; but do not be alarmed if the sun raises the temperature somewhat rapidly, for this will do no harm. Every grower of indoor Roses should aim at having a nice genial, buoyant temperature, as nearly as possible imitating that which we have when the plants are in the same condition in the open. Where foliage is abundant the need of water will be more; but if anything the amateur errs in overwatering his indoor Roses, causing thereby a severe check, which in turn brings on mildew. Nothing is better for this pest under glass than the Campbell Vaporiser, which anyone can manipulate. Weak liquid manure should be given the plants once a week where the flower-buds are visible. Plants less advanced may have the surface soil stirred occasionally, and a teaspoonful of some good artificial manure given to each plant would be helpful.

Plants just purchased should receive a top-dressing of good compost, consisting of loam, leaf-soil and well-decayed manure in equal parts and about half a part of bone-meal, all well mixed. Take away the old soil to about 1 inch in depth, and replace with the new. Commence in a temperature of about 50° to 55° by day and 45° to 50° by night.

The pruning of pot Roses should now be carried out where the plants are intended for flowering in April and May. Discard unhealthy old wood freely, as the growths producing the highest quality flowers are the best ripened of last year's production. Cut these back to within 3 inches to 8 inches of the soil, according to the vigour of the variety, the strongest being retained the longest. Many pot Roses often grow tall rather than bushy, and these look well treated as pillar Roses. In this case their growths are very moderately pruned. Try a plant or two of Frau Karl Druschki and Mme. Abel Chatenay like this. They make charming decorative objects for the corners of rooms. A supply of the delightful little Polyantha Roses should be brought into the forcing-house from time to time. One of the best is Mme. Norbert Levavasseur, which is now procurable in bloom in the market. This has a delightful appearance in artificial light. Other charming sorts are Maman Levavasseur (Baby Dorothy), Phyllis, Mrs. W. H. Cutbush, Katherine Zeimet, Eugénie Lamesch and Rosel Dach, the latter at present little known, but one of wondrous beauty.

No establishment can afford to miss having a supply of rambler Roses to bloom in April, May and June. The great secret of success is having the growths well ripened. Two year old own-root plants, made bushy by cutting back once or twice, are the best to start with. They should be potted up from the open ground in October, and cut back to within 12 inches to 15 inches of the soil. Bring them in the greenhouse now and stand them on a bed of manure, tan or leaves where they can obtain a gentle bottom-heat. Such plants yield four or five splendid corymbs and panicles of bloom, and make lovely decorative plants. After flowering cut them back hard and grow on under glass during the summer, when some fine long rods may be obtained, which, if ripened off well, will provide some tall pillar plants. They would not require repotting if well looked after as regards top-dressing and liquid manure, for it is best to somewhat confine the roots. Of course, where a supply is not available, plants may be purchased ready prepared for forcing. Excellent sorts are Crimson Rambler, Blush Rambler, Dorothy Perkins, Lady Gay, Hiawatha and Tausendschön.

Climbing Roses on the walls and roofs of conservatories or greenhouses should now be spread out. The main pruning was done after flowering last June, so that all that is now necessary is to shorten back laterals to two or four eyes and to remove unripened ends from main rods. If too many rods are present, remove some entirely rather than overcrowd them. P.

NARCISSUS ALBICANS (MOSCHATUS) AS GROWN IN A POT. (*See page 42.*)

THE GREENHOUSE.

LARGE WHITE TRUMPET DAFFODILS IN POTS.

THE illustration on page 41 of Narcissus albicans, or, as it is very often listed in Dutch catalogues, N. moschatus, shows an exceedingly pretty and loosely-arranged pot of Daffodils. If, however, we had only the photograph to go by, it might as well have been one of some yellow variety such as princeps or Cervantes as what it is. Not so, however, in reality, for if there is any yellow in the large white trumpets when grown in the open, there is absolutely none when they are in pots in a greenhouse, especially if they are brought into flower rather early.

The dwarf W. P. Milner, which I feel I can never too often or too strongly recommend for pot culture, and which in the open is a pale sulphur yellow, comes quite white under glass. High prices are given for large white trumpets such as Lady of the Snows, which open pure white out of doors. We need not do this for varieties which we are going to force, for Mrs. Thompson, albicans and cernuus pulcher, to name three very useful ones for this purpose, can be obtained, the two first at about 1s. 6d. to 2s. a dozen and the third at about double the price. They will give us light, elegant flowers of pure white throughout the whole of their life.

Comparatively few people, I think, know the value of this section for affording a break or giving a contrast to the yellows. Although I am one of those who think that there is nothing like a yellow Daffodil, just as I think a real Violet should be purple, I feel inclined to waver in my love when I see the dainty chasteness of a well-grown pot of pure white flowers. JOSEPH JACOB.

A VALUABLE WINTER-FLOWERING GREENHOUSE PLANT.

(PERISTROPHE SPECIOSA.)

THE above is one of our most valuable winter-blooming greenhouse plants. Commencing to flower about October, it continues to bloom well into the new year. Individually the blossoms are not large, but this is amply compensated for by the freedom with which they are produced, as can be readily seen by the illustration. The colour of the flowers is a rich carmine-purple, with deeper-coloured spots near the base of the lip. An interesting and remarkable point about the flowers is that they are all really upside down as seen with the eye, the corolla being twisted.

WINTER-FLOWERING GREENHOUSE PLANT (PERISTROPHE SPECIOSA).

The plant is of easy culture, rooting readily from cuttings in a close propagating frame during March. Loam, leaf-mould and sand form the chief constituents of the potting compost; a little peat may be added, but it is not essential. The plants will be found to flower better if placed out in a frame during August and the first half of September, shading only for a couple of hours in the middle of the day.

When grown on for a second or third year Peristrophe speciosa forms large bushy specimens. The rich colour of the flowers is best seen when white-flowered or variegated plants are dotted here and there in the group. Subjects we use for this purpose are small white Chrysanthemums, Paper White Narcissus, Begonia Turnford Hall and Abutilon Savitzii. Justicia speciosa is the name by which this plant is sometimes known in gardens.

Kew. A. OSBORN.

THE FLOWER GARDEN.

WINTER TREATMENT OF SWEET VIOLETS.

DURING the past few weeks the weather experienced has not been favourable for these charming flowers, snow and fog being prevalent and the atmosphere charged with moisture. It is most important during such weather to keep the plants free from all dead and decaying leaves, also to admit abundance of air on all occasions when this can be done without unduly exposing them to the frost or rains. Stir the soil around the plants occasionally with a stick and sprinkle a little soot over the surface of the bed, and should evidence of a slug be seen, this enemy must be diligently sought for, caught and despatched.

The Violet plants which produce a continuance of flowers through the winter are most valuable, and too much care cannot be bestowed upon them. Sometimes mice will be troublesome; I have seen a number of flowers bitten off and placed in heaps under the leaves of the plants, apparently just for mischief. This is done during the night. Traps must be used when signs of these enemies appear. During a spell of snowy weather a rabbit once gained admittance to the Violet frame by burrowing underneath; needless to say, means were taken to prevent a return of his nocturnal visits.

If the glass lights become dirty through any cause (they frequently do owing to deposits from chimneys or trees, or both), choose a fine, mild day and give them a thorough washing. It is important that the plants have the full benefit of all the light available during the short, dull days. Numerous varieties of Violets are grown, all excellent, but for midwinter flowering perhaps the popular Marie Louise is the best. C. RUSE.

THE DOUBLE AMOOR ADONIS.

THE fine yellow flowers of Adonis vernalis, the spring Adonis, are so welcome that we greeted as a welcome arrival the appearance of the lovely Amoor Adonis (A. amurensis). It comes so early in the year, often blooming in February or early March, that it is hailed with the utmost pleasure as it opens its bright yellow flowers to the faint wooing of the sunshine of the time.

It appears, from all accounts, to be a variable species, and among the varieties introduced we find one with double flowers called A. amurensis flore-pleno. This is a fascinating thing when seen open, and singular in its appearance. The flowers, which are quite double, are large and ornamental, the golden yellow which constitutes the main colouring being glowing enough to give us special pleasure in the early period at which it flowers. But the interest of the flower is heightened to us by a curious green circle, formed of green segments, which sets off the other petals. Unlike some features of this kind, this green ring is quite permanent. This fine Adonis is worthy of the notice of those who like the family and who do not object to double flowers in plants such as this.

The cultivation of this Adonis is not difficult, as it will thrive in any loamy soil, although it is more vigorous if in a rather heavy one. Its early blooming points to the desirability of its being planted in a sheltered situation, as, although hardy, it is the better for shelter from cold winds. To prolong the beauty of these Amoor River Adonises I have found it desirable to cover them with a hand-light during the period of bloom, but this is not necessary in a sunny, sheltered place where other things keep off cold winds. A sunny position is also desirable, and the attacks of slugs should be warded off in gardens where these pests are troublesome.

Dumfries. S. ARNOTT.

RIVIERA NOTES.

ACACIA PODALYRIÆFOLIA.—This pretty winter-flowering Acacia, as usual, opened its first flowers at the end of November, and will continue in great beauty till the middle or end of January, according to its situation. There are so many Acacias that are beautiful and indispensable in the winter gardens on this coast that it is really difficult to say which is the most delightful. Though its colouring is much paler and clearer and its growth more leafy and bushy, this may best be described as a winter-flowering A. cultriformis, and, like it, it requires a dry and sunny position. It is best cut back to below the

big terminal panicles after flowering, before the spring growth commences. I can fancy nothing more delightful for the December greenhouse in England if it accommodates itself well to pot culture and the moister air of the North. The silver-leaved shoots are very decorative without any flower, and I place it unhesitatingly among the three or four Acacias that should be grown in every good garden either in England or on the Riviera. As it dislikes limestone it must be grafted on A. floribunda if it is to succeed in ordinary soils, but when it is grown in pots peat soil will suit it best. It requires a sunny position and plenty of air, with careful watering.

ROSE COMTESSE DE TURENNE.—This good Bourbon Rose yearly improves in freedom of flower during late autumn and winter. When fully grown and well established it is superior even to Caroline Testout in the garden, as it is very fragrant and is a shade clearer in colouring, with leaves that shine as if varnished—they are so unusually glossy. One does not hear as much of this fine Rose as it deserves. It lasts well when cut and the flower holds up its head well.

ROSE WHITE MAMAN COCHET.—As a rule any Rose that is specially good in England is not a Rose for this climate, but this admirable Rose is the exception that proves the rule. It will even thrive on a south wall, where it gives splendid flowers in winter. In the open the big buds do not open freely, and in wet weather are apt to rot; but that is almost an advantage here where so few Roses can stand against a wall. Lamarque and Souvenir de Sarah Prince are the only other Roses I have found satisfactory on a sunny wall, all other Roses either burning badly or else suffering so from the summer drought and heat that they become enfeebled and die out.

LYON ROSE.—It is far too soon to say anything more about it beyond its brilliant and beautiful coral pink colour, but it is expected to be quite a Rose for the market, and possibly a good winter bloomer. There are so many disappointments in new Roses that, until they have been fully tried in varying conditions and soils, one hesitates to recommend them. That beautiful Rose Etoile de France, for instance, after being much praised is being discarded because so few of its blooms are satisfactory. Now and again we get a glorious bloom, which whets our appetite for more, but we may wait a whole season perhaps before we do get a bloom perfect in colour and in shape.

FEIJOA SELLOWIANA.—How little one hears of this new fruit, which was spoken of so generally a few years ago! Though this shrub grows sufficiently freely in all situations and nearly all soils, it certainly does not fruit freely, and those who succeed best with it describe it as apt to drop its fruit just when it should be swelling up for maturity. Individually I had given it up in despair, so to say, when the other day I found a small fruit on the ground under a good bush, which had flowered freely each year without ever giving a fruit. Though not a full-grown fruit I cut it open to see what it looked like, and finding the smell most agreeable I tasted it, and to my great surprise found it so delicious that I am writing this in the hope that someone may suggest a means of fruiting this pretty shrub more commonly. My impression is that it does not like a calcareous soil such as I have here, and also that in August, when the fruit should begin to develop, it then needs liquid manure in hot and dry weather. Certainly there was much more rain on this coast last August than is usual, which may have helped this imperfect fruit to swell, and generally the autumn here has been very genial, though too dry for most things. Has anyone grown Feijoa sellowiana in a Peach house where it could have a little extra heat in a cold month of August? With good leaf-mould or peat it ought to fruit under such conditions, especially if planted in a good tub and not in the open border. Its roots must be kept under control in any case.

E. H. WOODALL.

TREES AND SHRUBS.

SHRUBBY SPIRÆAS AND THEIR CULTURE.

THE various shrubby Spiræas form an important group of plants for ornamental gardening, as the majority blossom well and give little cultural trouble. They may be used for a variety of purposes, and are equally at home whether planted to form groups in the shrubbery or specimen beds in conspicuous places on lawns. Some few species are desirable subjects to grow into specimen bushes, while others are of service for the wild garden. They attain their maximum dimensions in good, well-worked, loamy soil; but some thrive in soil of a hungry, sandy nature. The majority are gross feeders, however, and amply repay the trouble and expense attached to a top-dressing of rotten manure every second spring. The sorts which sucker freely are easily increased by division of the stools in spring. The group, however, which is made up principally of spring-flowering sorts does not sucker, and these are usually increased by means of cuttings during summer. Some sorts root freely, but others are rather difficult unless the cuttings are taken at the right time. The best time is when the wood is firm without being at all ripe, say, July. These cuttings may be about 4 inches long and be inserted in pots of sandy soil in a warm propagating case.

Some of the early-flowering set form excellent subjects for forcing, especially when about three years old. At that age they are usually shapely plants, with long, elegant branches which blossom profusely. Later the plants get tall and dense, and are only suitable for large structures; still, large specimens lifted from shrubberies and forced for the decoration of large halls or similar places are wonderfully effective.

To obtain the most satisfactory results from Spiræas attention must be given to pruning, and the operator must know what he is about before he attempts the work. They naturally divide themselves into two distinct sets by reason of the season of flowering. One set produces its blossoms from early spring until June; the other set opens its blooms from July until late autumn. All the spring-flowering sorts produce their flowers from wood ripened the previous year, whereas the autumn-blooming sorts bear theirs from the current season's wood.

W. DALLIMORE.

(To be continued.)

SOPHORA JAPONICA IN THE ROYAL GARDENS, KEW. (*See page 19, January 9.*)

PRUNING THE WINTER JASMINE.

MANY amateurs and even some gardeners are at a loss to know how and when to prune this beautiful winter-flowering shrub, with the result that plants are frequently neglected, much to their disadvantage. In the case of young specimens these will require but little, if any, cutting; but old plants which have become considerably overcrowded can be greatly benefited by a judicious use of the knife.

It should be remembered that the bright yellow flowers are borne on the young wand-like shoots of the previous summer's growth, hence it is the production of these that the cultivator must endeavour to encourage. Bearing this in mind, it will be obvious that if pruning were done in the autumn much flowering wood would be cut away. The proper time to undertake the pruning of this shrub is immediately after the flowers have faded; then new shoots will be made during the coming summer for flowering next winter.

In the case of old, overgrown specimens, the first thing to do will be to cut right out at the base some of the oldest of the branches and so thin the plant generally. Of those that are left attention must next be directed to the lateral or side shoots, and where it is desired to reduce these cut out to within 1 inch or 2 inches of the main stems all the oldest and worst. This will usually suffice, but where further reduction is necessary to keep the plant within bounds the other laterals may be shortened as desired. If the plant can be given a good mulching of well-rotted manure as soon as this work is done and then afforded water during dry weather, strong young shoots will quickly be made, and from these a good display of flowers may be expected next winter.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FRAMES.—Where a hot-bed has to be made for the purpose of raising seedlings, no time must be lost in securing and preparing the necessary materials. An ideal hot-bed can be made of leaves and long, strawy stable manure in equal proportions, but where leaves cannot be obtained all stable manure will answer very well, although it does not usually retain heat so well as the mixture. Sufficient material will be required to form a bed 2 feet in depth, and where the frame is a portable one and is placed on the hot-bed the heap of manure should be made large enough to allow of 12 inches or 15 inches protruding outside the frame on all sides. This will enable the operator to walk round the latter when attending to the contents. The manure and leaves should be turned and thoroughly shaken up every other day for a week before making up into the bed. When forming the latter well shake the materials so that no lumps are allowed to escape, and tread firm as the work proceeds. Auriculas and Carnations in cold frames may now require a little water, and where this is used it should be slightly warmed. Bedding plants in warm frames may have more air whenever the outside temperature will allow it.

Greenhouse.—The present is a good time to sow seeds of tuberous Begonias and Gloxinias, and if the resulting seedlings are given good treatment they will flower well in late summer and autumn. They are not at all difficult to manage, and every beginner should endeavour to grow a few. Rather shallow pans or boxes are the best for the seeds, and these must be well drained with pieces of broken pots and filled to their brims with a finely-sifted mixture of peat, loam and sand in equal proportions, placing a layer of rough material over the drainage first. Make all firm, then scatter the seeds evenly on the surface and press all flat with the bottom of a clean pot. They will not need covering, as the seeds are very small. To facilitate even sowing the seeds may be mixed with a little silver sand. Cover the boxes with brown paper or panes of glass and stand in a temperature of 60°, or 55° will do very well for the Begonias. As soon as the tiny seedlings appear, remove the paper or glass and keep near the glass of the house.

Fruit Garden.—Where it is intended to graft stocks in March, the present is a good time to select grafts or scions of the varieties it is desired to propagate. These must consist of shoots that were formed last summer, and they should be firm and about the thickness of an ordinary lead pencil. Cut them into lengths 1 foot or so long, tie them into bundles, firmly and plainly label each, and then bury them two-thirds their length in soil. This will have a slightly retarding effect on the shoots but also keep them plump, two desirable points, especially with Pears and Apples. Any old trees that have not fruited well in the past may be greatly benefited by the application of strong liquid manure to the soil in which they are growing. It frequently happens that much of this is wasted at this season, but it should be used on the old fruit trees instead.

Flower Garden. — Where lawns need any attention in the way of filling up depressions or levelling hills, this should be attended to without delay. In either case the turf will have to be lifted in strips 2 inches thick and 1 foot wide, adding or removing soil as the case may be, after which replace the turf and beat the whole firmly. This work must not be done during frosty weather. The beautiful Iris stylosa will now be opening its flowers, and these must be protected from birds, which seem to have a great liking for them. Black cotton stretched tightly from sticks a few inches above the plant is most effective, and at the same time inconspicuous.

Vegetable Garden.—Where Asparagus beds have not been mulched with manure, this should be attended to at once. A 6-inch thick dressing is none too much, as the plant is a gross feeder and it is necessary to induce strong growths of a succulent character. At this season only manure that is well decayed should be used for this purpose. Where it is desired to increase the stock of Rhubarb, a few clumps may now be lifted and divided, taking care to obtain at least one of the pink-coloured crowns with each portion. Only a few clumps should be treated thus, as it is unwise to pull from the divided crowns the first summer. H.

1.—PORTION OF AN OLD PLANT OF LONDON PRIDE LIFTED READY FOR DIVISION

INCREASING LONDON PRIDE.

SAXIFRAGA UMBROSA is more familiarly known by the name of London Pride, and is a plant that is universally cultivated. The common name seems to suggest that the plant had its origin in the neighbourhood of London, but there is no information forthcoming to substantiate this. For many years London Pride has been grown very extensively in gardens in and around the neighbourhood of large towns and in almost every conceivable position. It is a plant that may be described as suitable for either sunny or shady borders, no position appearing to come amiss to it. Not seldom in old and well-established gardens it is in frequent request as a plant for edgings to bold and handsome borders, straight lines forming an excellent finish to a well-arranged border of hardy plants. This plant will grow in any ordinary garden soil, but its prospects are considerably improved by treating the quarters allocated to it in thorough fashion. The flowers are white and pink, dotted red, and are borne in graceful sprays on slender, wiry stems. For decoration indoors the blossoms have many uses. As a subject suitable for table decoration the flowers have few equals, and the merest novice can arrange a most tasteful decoration with comparative ease. London Pride comes into flower in the early summer and remains in good condition until July. We have frequently gathered large and handsome bunches for exhibiting in competitions of hardy flowers in early July from plants that have been in blossom since May.

London Pride is a perennial, and may be increased by cuttings and by division ; but the latter is the more popular method. Opinions differ as to when the division of the old roots should take place. We have no hesitation in lifting and dividing them at any time from the closing days of January until the concluding days of March. When this work is carried out at the first-mentioned period, we commence operations only on such days as the weather is mild and the ground free from frosts. When the division of the plants is carried out early, the rooted pieces become established all the more quickly and a pretty display is obtained in the succeeding flowering season. This is less likely to be the case when the division is done late in the spring.

Every few years London Pride should be lifted and divided, as growth becomes stronger and better in consequence, and the display of blossoms better and far more effective. Fig. 1 represents

2.—THREE TYPICAL SHOOTS OF THE OLD PLANT SHOWN IN FIG. I.

a portion of an old plant that will be benefited by being divided at the present time. Note the number of strong, vigorous shoots that are present, also the numerous young shoots, some of embryonic nature, from which so much may be made.

Fig. 2 represents three ideal pieces of a divided plant. They each differ in their character. The one in the centre is a piece having two or three crowns, each too compact in its character to divide satisfactorily. The two outer pieces have vigorous roots adhering, which may, if desired, be shortened back to any length so long as there are roots visible on the stem to ensure its future progress.

There are, however, a far larger number of young growths that are only partially developed in each old plant and which the beginner may desire to utilise. These again have their uses, and by dealing with them promptly we may very soon bring into effect a large number of promising young plants. Fig. 3 serves the purpose of illustrating the varied character of these shoots of recent development. Some of them it will be observed are very slender and fragile-looking, but they have the element of considerable promise in each of them, which will soon become an accomplished fact if they are treated with proper care. Such little pieces may be dibbled in boxes or cold frames in nice

3.—SEVERAL TYPES OF YOUNG SHOOTS AS FOUND IN OLD PLANTS.

friable and sandy soil. Just an inch or 2 inches apart will suffice, and if the soil be pressed firmly at the base of each young growth we have little doubt that they will grow.

Fig. 4 shows the method of propagating the more vigorous growths in boxes. They may be inserted in precisely the same way in a cold frame with equal success. The box of plants should be placed in a frame for a time to encourage vigorous root-action. We prefer to plant strong pieces of a divided plant in the quarters where they are to flower. Observe a distance between each plant of a few inches at least—we prefer 6 inches—and in a little while the intervening spaces will be quite covered in with new and vigorous growths.

CLEMATISES AND THEIR CULTURE.

THIS family contains some of our best hardy climbing plants, and for covering trellises, fences, walls, tree-stumps, arbours or arches they cannot be surpassed. There are a large number of beautiful garden hybrids and varieties, and these, in addition to a few of the species, are very ornamental. The plants delight in a well-drained yet rather heavy soil which has been well trenched and a good amount of well-rotted manure and some old mortar rubbish added. The manure must be well buried, so that the roots do not come into contact with it immediately the specimens are planted. Clematises are usually supplied by nurserymen in pots and may be planted at almost any season, spring and early summer being the best times.

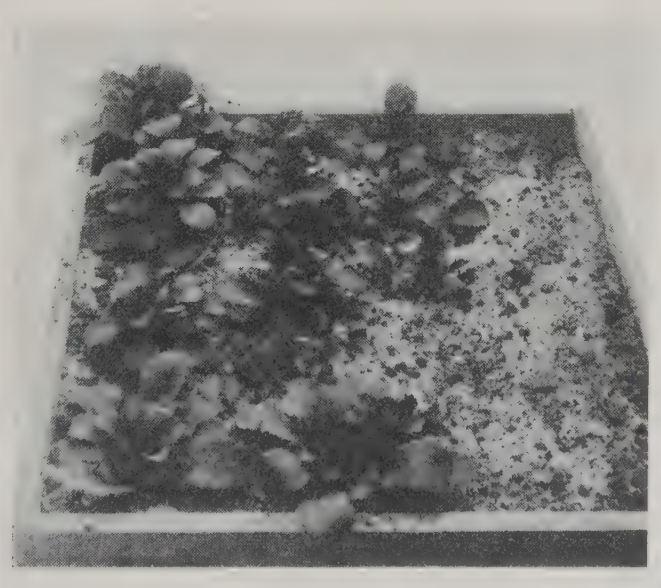
Propagation is effected by grafting on to portions of the roots of the common Traveller's Joy (Clematis Vitalba), these being potted up into small pots as soon as the grafting is done and plunged in Cocoanut fibre in a warm, moist house until a union is effected. Layers, too, will root if given time, a young vigorous growth being notched, pegged down and covered with soil in early summer. Cuttings made from a piece of one year old wood, allowing one eye or bud to each, may also be rooted if inserted in sandy soil and plunged under glass as advised for grafts. Besides this plunging, it is advisable to cover each cutting-pot with a bell-glass. Seeds of most species germinate freely if sown in well-drained pots of light soil in the spring, standing these in a cool house until growth is active.

The greatest trouble in the cultivation of Clematises is the pruning, owing to the several sections requiring different treatment in this respect. When purchasing plants the amateur should make a point of ascertaining from the nurseryman to which section they belong, then the after-treatment will be much simplified. For garden purposes the plants are divided into five well-defined sections, namely, florida, patens, lanuginosa, Viticella and Jackmanii, and the pruning of all the plants belonging to a section will be the same. The florida and patens sections flower in late spring or early summer on the wood that was made the previous year. The only pruning needed is the removal of old, worn-out wood in February. The lanuginosa section includes the very large-flowered sorts, and these bloom during the summer on short shoots produced from the old wood. Pruning consists in shortening back the growths into well-ripened wood in February before the buds are breaking, pruning to a good plump pair of buds. Those belonging to the Viticella and Jackmanii sections flower in the autumn, and, unless required to cover a very large area, should be cut down to within 1 foot of the ground in February. Great care should be taken in the training of them all, else the shoots will quickly form a tangled, unmanageable mass.

C. montana, the Mountain Clematis, is a very beautiful white-flowered species that flowers in May; it is best when allowed to grow in a natural manner. C. indivisa is not quite hardy; it has rather small white flowers and is one of the best cool greenhouse climbers that we have. All Clematises like plenty of water during the growing season, and a mulch of well-rotted manure on the roots is much appreciated during the summer months.

EARLY PEAS.

A GOOD sowing may now be made with comparative safety on a well-prepared south border, selecting dwarf varieties for the purpose as less likely to suffer from the effect of cold wind in March and April than tall-growing sorts. Young Pea plants will, under certain circumstances, bear considerable frost without injury, but they can ill withstand a cold, harsh wind. As soon as the young plants are through the ground give protection from wind by drawing the soil up as high as possible on each side of the row. Stake closely as soon as ready, introducing a few evergreen branches to help protect the plants. Where space and pots are available, a sowing may now be made to produce Peas about



4.—METHOD OF PLANTING THE DIVIDED PORTIONS IN BOXES AND SUITABLE FOR A SMALL GROWER.

April 20. Eight-inch pots are quite large enough, and should be half filled with good rich loam, covering the seed with 1 inch of the same soil. Nothing approaching a high temperature or close atmosphere must be allowed, or failure is sure to follow. A late Peach house or similar cool quarters will suit them admirably. Weekly sowings made in pots from now to the end of February should afford an occasional dish of Peas from April 20 until they can be gathered from those sown under the shelter of south walls a month ago.

THE TOWN GARDEN.

LAYING DOWN NEW TURF.—Advantage should be taken of mild weather to get the work of turf-laying done. In some gardens it is necessary to make new lawns and in others to patch old ones, and the best time for such work is while the grass turves are easily cut and beaten down again. The surface of the soil should be made quite level and be freed from stones; then put on a covering of ordinary garden soil passed through a half-inch mesh sieve about 1 inch deep. All turves should be cut even in thickness and of the same length and width respectively. Rolled turves should be 3 feet long and 10 inches wide; unrolled ones 1 foot long and 10 inches wide. The thickness should not be more than 2 inches. Commence to lay down the turves at one corner, one side or end of the plot to be covered, whichever is most convenient; but in every instance straight lines of turves should be laid, and the joints must fit closely, as later in the season, when drying winds come, there will be wide openings between the turves if the latter are carelessly put down now. After laying the turves beat them down with the turf-beater before rolling them; the roller will press forward some of the turves and leave the surface generally in a waved condition, especially if the roller is passed over the turves always in one direction; but by first selecting the uneven spots, beating them down, and then rolling in different directions, a very even surface will be the result.

BULBS IN BEDS AND BOXES.—The town gardener can make a very brilliant display in his garden by the use of bulbs alone. Where they have been freely planted in beds and boxes the leaves will shortly appear, and every care should be taken of them. Both rats and birds will dislodge and spoil growing bulbs, and if holes are seen in the soil they should at once be examined, and if the bulbs are not stolen fill up the holes forthwith, using a light compost, but do not unduly press it down, else the sprouting bulb will probably be injured.

PROTECTING ROSES.—Some of the more tender varieties of Tea and Hybrid Tea Roses growing in town gardens should have some protection from very severe frosts. Over the roots place a layer of half-rotted manure and some clean litter around the lower part of the stems. The mulching of the roots must not be delayed, but the protection of the stems need not be done until the commencement of a severe frost.

BORDER CARNATIONS.—In some districts in towns it is a very difficult matter to grow choice border Carnations successfully, but the owners of these gardens love Carnations and wish to have them in the borders. To people who have a number of young plants growing in pots and boxes, I would say: Place them in a sheltered corner, but not under any trees; surround the pots or boxes with dry ashes and then fix pliant rods over the whole bed for the support of mats during very frosty weather. It is a very trying period just now for these plants; keep them free from injury until the month of April, and then they will grow freely. The sparrow always has his eye upon the tender "grass" of Carnations and Pinks, and very soon does much damage to the plants where the latter are unprotected. In country towns soot may be freely scattered on the leaves while they are moist, and as sparrows dislike soot they will not touch foliage smeared with it; but in large towns care should be taken not to put on too much soot, as the soil generally is, to a great extent, impregnated with it. Fasten strands of black thread to small sticks in such a manner that the birds cannot get at the foliage without coming into contact with the strands. Old plants of both Carnations and Pinks harbour slugs and various kinds of drift, such as leaves and bits of stick, and they should be lifted up, all foreign material cleared away, and, in particular, destroy the slugs. AVON.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

SUMMER-FLOWERING CHRYSANTHEMUMS.—These make a fine show in the borders at a time when other flowers are almost past. Our first batch is already rooted, but there is ample time to strike more and grow them into nice flowering plants by September and onwards.

Hollyhocks.—Plants raised from seed sown on a south border last June, and which are being wintered in cold frames, should be given plenty of ventilation and any dead leaves removed. If planted out in March in a well-prepared soil, such specimens ought to produce fine flowers during the coming summer. If seed is sown at the present time in heat and well attended to, the plants sometimes bloom by the end of the season sufficiently to reveal their colours.

Seeds may now be sown of Antirrhinums, Lobelia cardinalis, Verbena venosa, Cannas, Grevillea robusta, Acacia lophantha and other plants required for bedding during the coming summer. Use plenty of sand with the soil and stand the seed-pans in a warm temperature. Do not sow the smaller seeds too deeply.

HARDY FRUITS.

Prune Orchard Trees if not done. The heads should be kept well thinned to admit light and sun to the interior of the trees. If they have been much neglected, do not be too severe at first. Remove moss and dust the branches well with quicklime early in the day when the wood is damp, or spray the trees with a solution of caustic soda, obtainable from any horticultural sundriesman with full directions. Put in Gooseberry and Black and Red Currant cuttings.

Pears and Plums on walls or espaliers which may be crowded with long, unsightly spurs should have a few cut away each year. If cut to within 1 inch of the main branches, new buds quickly form and grow into fruiting wood, the fruits being, as a rule, more clean and of better size and quality.

Grafting.—Head back trees intended for grafting; standards should be shortened more or less according to the size of the branches, and from 1 foot to 2 feet from the trunk is about the length to leave. Select stout young shoots of suitable varieties and heel them in under a north wall till the right time for grafting arrives.

VEGETABLE GARDEN.

Peas.—As soon as the land is in a fit state a sowing of some of the round-seeded early varieties may be made in the open; but sow the wrinkled early varieties in pots and stand them on shelves in a newly-started vinery or Peach house to give them a start. Also make a sowing of Broad Beans Early Longpod or Early Mazagan. I generally sow my first lot between William I. Peas, and the shelter from the Pea-sticks helps to forward the crop.

Cauliflowers wintered under hand-lights and in cold frames need ample ventilation to encourage sturdy growth. Make a sowing of the Early Snowball or Erfurt in pans and hasten them along in suitable warmth. Lettuce of suitable varieties may be similarly treated, also Parsley, Leeks and Ailsa Craig Onions. Prepare leaves and litter for making up hot-beds for sowing Carrots, early Turnips and early Potatoes. The material should be turned twice before making up the beds, which must be very firm. Stand on their ends (in shallow boxes) the sets of some very reliable varieties of Potatoes to sprout ready for planting in frames or pots.

H. MARKHAM.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

FRUIT DEPARTMENT.

LATE VINERIES.—Grapes still hanging upon the Vines should, as soon as possible, be cut, as, apart from relieving the Vines of needless strain upon their resources, it allows of cool treatment and complete rest for a few weeks. During inclement weather pruning and cleaning the rods may then be carried out, while thoroughly washing the glass and woodwork and lime-washing or similarly purifying all wall surfaces should not be neglected. In cleaning the Vines, rubbing off the loose bark by hand and afterwards scrubbing around the spurs with a moderately stiff brush, using strong soap and water as a liquid, usually suffices. If mealy bug has by chance obtained a footing and the spurs are somewhat lengthy, Gishurst Compound, worked to a paste-like consistency and used to stop all holes and crevices is a safe and certain remedy. Vines pruned after this date should, as a precaution against bleeding, have the spurs where severed dressed with styptic, an operation soon accomplished and one that may save much annoyance later on.

Peaches and Nectarines.—Trees in bloom should be attended to daily, but more especially when the weather is bright, and have a soft brush passed lightly from flower to flower to ensure fertilisation. If the border was well watered before the house was started, little further will be required until the fruit is set; but if, owing to shallow borders or a very porous rooting medium, dryness at the roots is apprehended, advantage should be taken of a favourable day to correct this, when by slight admission of air and extra warmth in the pipes atmospheric buoyancy is created. Pruning, cleaning and training in succession houses may be undertaken at convenience, and if mildew or red spider has in the past been prevalent, a mixture of sulphur and soot applied where possible to the stems and branches with a brush will have a good effect.

PLANTS UNDER GLASS.

The recent change in the weather has very considerably lowered temperatures all round, and rather than attempt to maintain these by means of excessive heat in the pipes to the standard that was with ease accomplished a short time ago, a considerable reduction, compatible with the safety of the plants, is preferable. For the majority of heat-loving plants a night temperature of 60° with a slight rise during the day, if from fire-heat alone, is ample, regulating the moisture used both for watering and damping accordingly. This rule holds good in the same ratio in respect to cooler structures, as time thus lost, if any, is quickly regained afterwards with lengthening days and increasing solar heat. For some time to come watering should be carefully performed.

Plants and Seeds.—Plants in small pots rooted in autumn, such as Crotons, Dracænas, Pandanuses and others familiarly known as table plants, may now be ready for repotting; the same applies to Cyclamen and Tomatoes raised from seed, none of which should be allowed to become really root-bound before this is done, otherwise any disturbance of larger subjects had better be deferred until next month. In the meantime materials may be procured, prepared and held in readiness.

FRUIT STORES.

Grapes recently taken to the store-room must have the bunches inspected and all bad berries removed occasionally, and this is usually more important immediately after their removal thereto than later on. Apples in northern parts are at present very disappointing in respect to keeping qualities, as great numbers that but a short time ago were apparently sound are now badly spotted and decayed. If in bulk, the heaps should be frequently turned, placing those that are sound aside and using at once all others that show signs of unsoundness. Pears in general have ripened out of season, consequently fruits of these are not plentiful. Varieties that ripen after this time are often improved in flavour and texture by being placed in slight warmth for a few days previous to being sent to the table.

JAMES DAY.
(Gardener to the Earl of Galloway.)
Galloway House, Garlieston, Wigtownshire.

NEW PLANTS.

CATTLEYA PERCIVALIANA CHARLESWORTH'S VARIETY.—This is a very handsome form of a distinct and comparatively little-known Orchid. The sepals and petals are pure white and of the usual shape and size, the rather small labellum having a rich crimson blotch surrounded by purple at the base, this in turn being margined with pure white and much crimped. The throat is very rich yellow, this being suffused through to the outside, the colour combination being very remarkable. Shown by Messrs. Charlesworth and Co., Hayward's Heath, Sussex. First-class certificate.

Cattleya Maggie Raphael Westonbirt variety.—In spite of its most unwieldy name, this is a very chaste-looking flower of medium size and apparently robust constitution. The lanceolate sepals are rather pale rosy mauve in colour, this shading off to almost white at the tips, the broad, much-crimped petals being a rather richer shade of the same colour. The labellum is, however, the most beautiful portion, this being very rich carmine with deep yellow venations in the throat. The plant shown had one flower only.

Vanda Watsonii.—This is a graceful-looking plant, producing large, rather loose racemes of medium-sized white flowers with a blotch of yellow on the cushion. The narrow, drooping leaves and aerial roots lend an additional charm to this plant. Both the above were shown by Lieutenant-Colonel G. L. Holford, C.I.E., C.V.O., Westonbirt, Tetbury, Gloucestershire, and each received an award of merit.

Odontoglossum ardentissimum Norman Cookson. This is another beautiful addition to the Odontoglossums, although it resembles to some extent others that were shown and received awards last year. The flowers are of medium size, perfect shape and exquisite markings. The ground colour of the sepals and petals is brownish purple, this being distinctly edged with pure white. The small labellum has a blotch of brownish crimson at its base, this being margined with a broader band of white than are the sepals and petals. Shown by N. C. Cookson, Esq. Award of merit.

Begonia Patrie.—A new winter-flowering variety which has resulted from the crossing of B. socotrana and B. Pearcei variety, the former being the seed parent. The new-comer is of a very dwarf, compact habit, not more than 8 inches or 9 inches high, and with medium-sized flowers of a coppery red shade, very freely produced. The variety is quite distinct from such as B. Agatha and others raised by Messrs. Veitch and Sons, and is notable rather for its sturdy and compact habit and profuse flowering than for size or brilliant colouring. Should the variety prove to be a free seeder, which is unusual in these winter-flowering types, it may prove of value to the hybridist. Exhibited by M. Lemoine, Nancy. Award of merit.

Chrysanthemum Maud Allan.—A pure white narrow-petalled decorative variety of obvious merit for late work. Possessed of considerable freedom of flowering and producing its flower-heads in sprays on long stems, it will doubtless be much sought after by florist and gardener alike who require such things so long as they are available in good condition. Shown by Mr. N. Molyneux, Wickham. Award of merit.

All the above were shown before the Royal Horticultural Society on the 12th inst., when the awards were made.

SPRING WORK IN THE HERBACEOUS BORDER.

I THINK now, when all enthusiastic gardeners are planning alterations and renovations in their herbaceous borders, a few words might be interesting. Last summer the stock plants became overgrown and unruly, and the consequence vas that when in the autumn I began to ook to the borders I found I had more to do han I bargained for. I have now had such a esson against delaying the work in the borders hat I have determined to have no late-flowering, ank-growing plants like Michaelmas Daisies at ll in the borders, but to relegate these useful hings for late cuttings to the store garden so as o be able to rearrange the borders not later than October. Some of the Michaelmas Daisies do ot bloom until November, and I hate destroying nything before I have harvested the flowers, nd the Star Asters are too charming to be oregone altogether.

It is said when an actor gets a night off he nvariably goes to a theatre, so when I tear nyself away from my own garden my one idea s to visit others. In my wanderings last summer found that colour schemes for the bedding of erbaceous borders are fast gaining ground, and fancy the promiscuous mixing of all kinds and olours of plants will soon be a thing of the past. ndeed, I am sorry to say I see the ribbon ardening of 1870, as described by Mr. Glenny, ooming within measurable distance.

Professional gardeners have always had a ankering after this form of decorative gardening, nd many have clung fondly to the combination f scarlet Geranium, Calceolaria and dwarf obelia dear to the hearts of the last generation. However, there is one comfort, that it will be mpossible for any but the wealthy to carry out his fashion owing to the want of greenhouse oom for the store of half-hardy plants neces- ary and the labour that the planting entails, so ay still hope to preserve our cottage gardens in heir simpler form of artistic beauty.

However, I can see that a great deal can be one to produce better and stronger effects by he judicious mixing of a sequence of harmonious olours, and I am now devoting myself to various xperiments, trying to keep to quite simple rrangements within the means of all who love ardening for gardening's sake.

A pleasing variety of flowers arranged for ffective colouring can be ensured by the llowing little colour scheme, which is very asy to carry out if the border does not exceed feet in width and is backed as mine is with a aurel hedge. The colour blocks can be repeated cording to the length of the border, changing e kinds of flowers. I began by dividing a rtion of the border into six blocks and ranged the colours in the following sequence: ed, white, pink, blue, yellow and mauve. At e back of the red block I planted a group herbaceous Poppies, and as these flower rly and are cut down, I placed round them od clumps of scarlet Lychnis and sowed inly double scarlet Poppy. Next I planted lphinium nudicaule, Monarda didyma, and t spaces where I shall plant Gladiolus enchleyensis for an autumn display, and in e late spring Lobelia cardinalis will go in. wards the foreground is Sutton's Scarlet veet William, and I am sowing the annuals num grandiflora rubrum, Sutton's Crimson ng, Godetia, Jacobæa, and scarlet dwarf opæolums and Alonsoa. In front I have nted a border of crimson double Daisy, which kes a neat, effective finish against the wide f edge. For the next block, white, I have a le crowd of double white Hollyhocks at the k, and work down with white Phloxes and e of the new giant Daisies, Mallow and terbury Bells. For white annuals you can- improve on Godetia Duchess of Albany (sown thin and well thinned out later), Candytuft and Asters to prick out by and by. White double Daisies finish the block next the grass, with good clumps of the charming white Primrose now in full flower.

In my pink block I was fortunate enough to be able to utilise, without moving it, a large clump of pink Pæonies, which is in the centre. I have put double pink Hollyhocks at the back, which I have varied with Sweet Peas – Queen of Spain; these will be carefully staked, and as I wish to be extra cleanly I shall give the Hazel branches a coat of green paint so as to make the staking less aggressive. Sweet William Pink Beauty, plenty of it, fills a forward place, and some double Pyrethrums. Plenty of satin rose Godetia to take the place of the short-blooming Canterbury Bells and rose Nemesia, Rose Mallow and Silene pendula, pink Daisies for the front and my pink block is completed.

The blue block is a little more difficult, though we have the beautiful Delphiniums to mass at the back, and the somewhat coarse Anchusa (Dropmore variety), Polemonium cæruleum towards the centre, and heaps of blue annuals—Miss Jekyll's Nigella (sow thin), Nemophila insignis, Phacelia campanularia, and a nice thick edge of Forget-me-nots coming into bloom and Veronica prostrata. I have also ventured in blue Primroses; mine are really blue, given me by the Royal Horticultural Society. For the yellow section, double yellow Hollyhocks at the back, Trollius, Coreopsis grandiflora, yellow Wallflower, yellow Antirrhinum (to be put out shortly), Iceland Poppies, Aquilegia chrysantha, and a nice lot of yellow Carnations for July; Violas for the edge.

For the mauve block, again Hollyhocks, Phloxes, Erigeron speciosum, Verbenas, Stocks, Asters (Purple Queen), Wallflowers and Canterbury Bells, and I have finished with a border of mauve single Primroses, dwarf Phloxes and Aubrietia; for annuals, Candytuft and Clary and Asters will give you perpetual flowers.

Now for a valuable hint. I anticipate a good deal of trouble with snails and slugs this season, owing to the damp of last summer and the want of sunshine this spring. When you sow your annuals give the soil a slight sprinkling with Sanitas Powder, and use it again when the little seedlings begin to appear. It is the best slugicide ever dreamt of, though not intended for that purpose, and it is also a perfect preventive against the depredations of sparrows and mice. It must, of course, be renewed after heavy rain. It is perfectly harmless to plant life.

A. DE LACY LACY.

Clerodendron fallax.—This is one of the most beautiful of the shrubby Clerodendrons and easily grown. Its large heads of bright red flowers are very effective for grouping and other decorations during the autumn months. Although it may be propagated from cuttings, I think the best plants are usually raised from seed, which should be sown thinly in pans in early spring and placed in a temperature of 70°, where it will readily germinate. When the seedlings have made two or three leaves, pot them into 3-inch pots, using loam, leaf-soil and a little coarse sand, and place them on a shelf near the glass. Keep them growing in a brisk stove temperature, repotting them when ready into 4½-inch pots in a mixture of loam, leaf-soil, a little spent Mushroom bed manure and coarse sand. A little finely-crushed bone will also be of benefit. Grow them on in the same brisk temperature till the flowers appear, when a slightly lower temperature and less atmospheric moisture will suffice. When the pots are filled with roots and the flowers are developing the plants will need plenty of stimulants. Early in the following year the plants may be cut back, the roots slightly shaken out and repotted, placing three plants in an 8-inch pot. Use the same mixture as before, but in a rougher state.—E. H., *Frogmore.*

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Precocious Leucojum æstivum (*G. E.*).—In all probability your Leucojum bulbs were those of the ordinary form of Leucojum æstivum (the Summer Snowflake) and will not bloom until May. If the precocious form, they should have been showing bloom before this time. The Summer Snowflake is a plant which should have a moister position than that you have given it, and it thrives admirably as a semi-aquatic with the water about 6 inches deep. Here it both flowers better and looks more pleasing than in dry ground.

Plants for small rockery (*L. W. Birch*).—You unfortunately omit the extent of the arrangement, which would have been helpful. What might prove most serviceable, too, depends not a little upon the method of construction; and, in the absence of these important particulars, we can only give you a list of plants for general guidance. You say nothing as to the soil, which is also important. The following, however, are all good and useful subjects: Campanula pumila, C. p. alba, C. pulla, C. Raineri, C. G. F. Wilson, C. garganica, C. g. alba, any of the silvery or encrusted Saxifragas, as, *e.g.*, S. Hostii, S. valdensis, S. elatior, S. macnabiana, S. cochlearis, S. pyramidalis, S. Aizoon in many varieties, S. apiculata, S. burseriana, S. sancta, S. longifolia and others. You might add such as S. Guildford Seedling, S. muscoides atropurpurea, S. densa and others of the mossy section. Other useful subjects are the alpine Phloxes, alpine Pinks, Silenes, Androsace sarmentosa, A. lanuginosa, Aquilegia Stuartii, A. cærulea, Arnebia echioides, Sedum spectabile, Primula marginata, Polygonum Brunonis, P. vaccinifolium, Achillea umbellata, A. Clavennæ, A. Huteri, Saponaria ocymoides, S. o. alba and Erigeron aurantiacus. It is not always the extent of a rockery so much as its diversified and varying aspects that permit of the greatest variety of plants being employed, and which adds greatly to its interest.

Information about Liliums (*Excelsior*).—You might possibly obtain home-grown bulbs of Lilium auratum from such bulb specialists as Messrs. Wallace and Co., Colchester, and, if obtainable, these are to be preferred. They are, however, by no means plentiful and may be quite a rarity. Regarded as a whole, L. auratum is not the best for you to plant, and L. a. platyphyllum would be better. At the same time, none of the auratums are good for a permanent group, the one just named being both the boldest and the best. Of far greater value for permanent groups are the varieties of L. speciosum, of which L. s. rubrum, L. s. cruentum and L. s. Melpomene are the best, with L. s. album as a white-flowered variety. Other good sorts are L. Henryii, L. Hansonii, L. tigrinum Fortunei and, if you can command free supplies of moisture, L. pardalinum. These are, as a rule, reliable and increase from year to year, while affording a long season of flowering and much colour variety also. Plant the bulbs 6 inches deep in well-dug and

moderately rich sandy soil, giving them a fair amount of air about the base. Avoid close or crowded groups when planting and allow 10 inches between the bulbs. All the varieties of L. speciosum prefer soil of a loamy character well enriched with manure.

Ideas for herbaceous border (*Wanderer*).—In a border of the width you name there would be room for four rows of groups acting in the main as principals, with smaller groups of plants occasionally, according to the subjects around, intervening. You do not give the position of the border, whether, for example, it is in front of a wall or a belt of shrubs; but, taking it for granted that it would have to be arranged with the taller plants behind, you might in the back row arrange the perennial Sunflowers, tall Michaelmas Daisies, perennial Pea, Kniphofias, Hollyhocks, Heleniums, &c. The next line of groups should for the most part, but not of necessity always, alternate with the groups in the first row, and be made up of Phloxes, Larkspurs, Campanulas, Pæonies, dwarfer Michaelmas Daisies, Liatris, with tall-growing Lilies and, if it suited your views, poles covered with the climbing Cluster Roses, Clematises and so forth. The next set of groups should be of Globe Flowers, dwarfer-growing Phloxes and Larkspurs, Flag and other Irises, Lilies, Incarvilleas, Montbretias, Heucheras, Heleniums, Aster Amellus and others; and in the front row of groups Megaseas, Christmas and Lenten Roses, dwarf Campanulas, Pinks, Sedum spectabile, Primula japonica, P. rosea and others. Daffodils and other bulbous plants could enter here and materially enhance and prolong the flowering season. The general idea should be that of well-disposed groups, each group consisting of three, five or, in a few instances, a dozen plants that, when grown, would be devoid of all formality and make an imposing display. The arrangement of the plants would require some skill and a good knowledge of the subjects, but, well arranged, so large a border would be a feature in any garden.

Half-a-dozen Sweet Peas (*E. B.*).—Of the varieties named in your letter we advise Etta Dyke, Countess Spencer, Audrey Crier, Lady Grizel Hamilton, King Edward Spencer and Black Knight. Possibly a better set would be Etta Dyke, Evelyn Hemus, John Ingman, Clara Curtis, Countess Spencer and The King. Plant in clumps of four, and draw out the stems carefully so as to afford all an abundance of space.

Kainit for Sweet Peas (*F. D.*).—Yes, this is undoubtedly good for Sweet Peas, especially when the application is made in the autumn. As you have not yet prepared your ground, we advise the use of sulphate of potash in preference, as it yields a larger amount of potassic food. A suitable mixture for working in early in February consists of five parts of superphosphate, three parts of sulphate of potash and two parts each of nitrate of soda and sulphate of ammonia, applying 3oz. to the square yard. This would be as a supplement to natural manures.

Violet culture for market (*Alpha*).—Before setting up as a market grower, have you considered the possibility of securing a good fairly local market for your produce? You mention Chrysanthemums and Cucumbers; but whatever may be the supplies in your part of the country, certainly in and about London the market is flooded with these things, and generally they can be purchased at very low prices. Rather than grow Cucumbers we should advise you to grow Tomatoes, as good fruit always secures a fair price, and, except in early spring or to keep late-raised plants fruiting from October to Christmas, no heat is required. Cucumbers must have warmth constantly maintained. With respect to Violets, you presumably purpose growing the large single Princess of Wales or some others like it, and the fine double De Parme or Marie Louise. These are easily raised as plants if in the autumn you cut from strong plants the fine side runners they make and put these fairly close together in sharp sandy soil in a frame with their bottom ends buried about 1 inch deep. Early in April most of these would have rooted. They should then be lifted and dibbled out singly or in couples on to ground that has been well manured and deeply dug, putting them in 12 inches apart each way. If kept well hoed, these pieces will make sturdy plants by October. Then to have bloom all the winter you must have warmth, either in frames by means of hot-water pipes or by hot-beds of stable manure and tree leaves, well mixed and prepared by having two or three turnings, with dampings to render the heat enduring. Commencing in November, a succession of such hot-beds and frames would be needed, these being filled with plants from the open ground, put rather close together, as fast as frames are ready. Later in the winter some frames might be filled without heat to bring flowers on more naturally. Once a good stock of plants is obtained a good succession from year to year is easily maintained. Violets in hot weather need liberal overhead waterings. The frames should be what are called span, lifting up each side, 6 feet wide and the same long, giving 36 square feet area to each.

TREES AND SHRUBS.

Climber for trellis fence (*W. M. T.*).—The common Clematis (C. Vitalba) would thrive well on your fence. It is not, of course, very showy, but it is a strong grower and will thrive in partial shade. The one you mention is C. Jackmanii. It will most likely thrive and flower well if you give it a position where it will not be too heavily shaded. For very shady places you cannot do better than plant the common Ivy. Some of the stronger-growing Roses will probably thrive, such as the Ayrshire Rose, Rosa multiflora and some of the wichuraiana Roses. Work the ground well previous to planting, and give good soil so that the plants will get a good start.

To make a Lavender hedge (*L. C.*).—To form a hedge of Lavender dig the ground to a depth of 18 inches, then select nice bushy plants one to two years old, and plant them 1½ feet apart, that distance to be between the stems, not the outside of the branches. It will be advisable, now that the season is so far advanced, to defer the work until February. As soon as planted, water the plants in and see that they are kept watered occasionally until established. The after-treatment consists of cutting the old flower-stalks back to the young shoots as soon as the flowers are over, and giving a top-dressing of well-rotted manure every second year. If you want a specially wide hedge you may plant a double row, the plants of the second row being placed alternately with those in the first.

Name and information about a shrub (*Miss Champernowne*).—The shrub you send is Photinia serrulata, a Chinese plant. It forms an excellent evergreen for the southern and milder counties, but does not prove satisfactory in cold districts. It likes a position exposed to the south or west and should have a little protection from the coldest winds. The flowers are in panicles, white, but not very showy; in fact, it is not worthy of much consideration for the sake of its flowers. It is increased by seeds or by layered branches; cuttings do not root easily, and it is rarely increased by such. If, however, you layer a few of the lower branches early next March, they will probably root in the course of a year or so. Sometimes, however, it is advisable to leave them two years before severing them from the parent plant. It is impossible to name the other specimen without better material.

Shrubs to replace Portugal Laurels (*D. Morris*).—The most beautiful blue or glaucous conifers are Picea pungens glauca and Cedrus atlantica glauca. The former is an extremely beautiful plant where it thrives, but it abhors smoke and has a habit in some gardens of deteriorating after a few years. The Cedar is a more vigorous plant, and thrives almost anywhere. Neither of these trees are very great soil robbers. The False Acacia is a bad tree for robbing the surrounding soil, and its roots travel a long distance. Ginkgo biloba or Salisburia adiantifolia is suitable for a lawn and does not drain the ground to any serious extent. Good shrubs are Berberis stenophylla, Choisya ternata, Escallonia macrantha and Rhododendrons in variety, as evergreens; and Spiræa arguta, Magnolia stellata, Prunus japonica fl.-pl., Pyrus floribunda atrosanguinea, Cytisus andreanus, Ribes sanguineum splendens, Diervilla Eva Rathke, Cotoneaster rotundifolia and Viburnum plicatum as deciduous shrubs. If you require a large-growing evergreen, Arbutus Unedo will be of service. If you try the latter plant, obtain a small rather than a large specimen, as large plants do not start well.

Pruning an Escallonia (*Grace Gardener*).—You may prune your Escallonia fairly hard either in autumn or spring. April is really best. If it is very thick it may be advisable to remove a branch or two altogether and replace them by young shoots. The strong young shoots you refer to may be removed to within a bud or two of the base. By pruning in spring you will not destroy next year's flowers, as they are produced by most Escallonias from the current year's wood. The sample of soil you send appears to be nice material to mix with loam to form a potting compost. As it was found beneath Scotch Pines, however, you had better try it on a few plants first instead of a large batch, as rotted Pine needles do not suit many things and are more or less poisonous to some plants. If you use it for a few things and find that there are no ill-effects, you may safely use it on a larger scale. Similar soil from below deciduous trees could be used for almost any kind of plants without fear.

Information about Azalea indica (*Martha*).—In your mild climate Azalea indica is likely to thrive under similar conditions to ordinary Rhododendrons. You had better select a somewhat sheltered position shaded from the fiercest midday sun in moist but well-drained ground. Break the soil up well, and where it is heavy add some sandy material at planting time. If you place plants out that have been in pots for a considerable time and become pot-bound, you will have to be very careful with the watering for a year or two. When watering allow the water to trickle carefully into the ball. A good plan is to make a shallow basin of clay round the ball to keep the water in the proper place, so that it will not soak the ground round about and leave the ball dry. During planting operations be careful to ram the soil well round the old balls. A south or west exposure is preferable to a north or east. Camellias may be grown successfully out of doors. They succeed well in partial shade, and should be sheltered from the east so that the early morning sun will not affect the flowers in the event of a frost. They ought to thrive excellently in your soil and climate.

Privet hedge dying (*G. M.*).—The Privet has apparently been killed by the fungus Rosellinia necatrix, which is the cause of the white root-rot of trees. All the old roots should be dug out and the soil replaced by fresh, if possible, mixing the old soil with flowers of sulphur and powdered lime. Each piece of root left in may become a source of infection of other plants.

ROSE GARDEN.

Rose Carmine Pillar in pot (*F. A. C. S.*).—As the plant is in a very large pot we presume it is a well-developed specimen. This variety is one of those that require but little pruning except to remove old, worn-out growths, which is best done immediately after flowering. It is a Rose whose old growths are liable to suffer from winter frosts, and last season many plants were so affected, but, strangely, the young wood escaped injury. The fine long growths made last season should be retained almost their entire length, but side or lateral shoots should be shortened according to their strength, the strongest being retained some 12 inches to 15 inches in length, and the smaller from 1 inch to 4 inches. If you desire to grow the Rose in its pot in a greenhouse it could be pruned at once, but if it is to be grown outdoors then March will be time enough. Should you wish to plant it out, this can be done at any time, having previously prepared a good position for it. Carmine Pillar is a fine Rose to grow as a single specimen upon a lawn, and it may either be secured to a pole or arch or allowed to grow as a free bush, a method of growing for which the whole of the multiflora group are peculiarly well fitted.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor of The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be dealt with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

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HOW I GROW MY SWEET PEAS.

THE Editor has again honoured me by requesting an article for The Garden. When I got the above text as my subject I felt that I was bound to give the old readers "Cauld kail het again," as we say in Scotland. However, the Sweet Pea fever has proved very infectious, and what I have to say may interest the bulk of the new patients (and their name is legion). Many of us wish we were among their number for numerous reasons—among them the fresh enthusiasm, the fresh soil in their gardens to grow them in, and the benefit of the National Sweet Pea Society's guidance as to what to grow.

Everything has a beginning, and the first thing I looked to when I decided to grow Sweet Peas was the best position for the purpose. Having chosen that, I had to erect fences to break the force of the wind from the south and south-west, from whence we get heavy gales during the flowering season. Then the trenching was tackled and it proved a mighty task. In many parts of the garden enormous tree trunks were unearthed, showing that a forest had at one time grown there; but now all is easy and we can trench with pleasure. It is better to allow plenty of space to work in, so we took out a fairly big section when we started this work. The top soil was laid aside to be placed again on the top.

I find it is advantageous to well work the subsoil, and early in December I incorporate with it some rather new cow-manure. At the end of each season I find the roots have penetrated right through this subsoil and the manure is a mass of fibre. By the time the roots get down it must be mellow. Over this the most important compost is worked, viz., a mixture prepared in summer composed of turf, bone-meal, lime and old manure. This is turned over once or twice and is in fine order in the autumn. It is well to do this work in dry weather, because not only is it easier done, but the operator can "firm up" as the work proceeds. Sweet Peas like a firm piece of ground. I sometimes leave, where the Peas are grown in circles in a design on the lawn, the top spit in a heap outside the prepared station to get the full benefit of frost on the portion from the compounded heap and also on it, filling up the stations when frost has gone. So much for the preparation of the soil.

About the commencement of the New Year all the pots are filled with suitable soil to raise the seeds in, and these are placed under glass, where the soil is tempered and ready for seed-sowing about the end of January. I have a germinator with which I test the seeds (swell them), and those not swelling are slightly chipped, when they swell up at once and are then sown. One cannot tell sterile seeds, and I am sorry to say some of the best varieties have a percentage of this stamp among them—good-looking seeds, whose cotyledons rot off. It is wise, therefore, to buy a few extra of all the choice things. It is wise, too, if any mice are about, to lay down some Rodine or other poison prior to sowing. These little vermin have the knack of finding out the seeds in the pots.

When the plants are about 1 inch high I remove them to a cool greenhouse and keep them near the glass, gradually hardening them off. They are all in 8-inch pots, ten plants round each. I find this size of pot suits admirably, because in a cold spring it carries them on nicely till early in May if advisable. In a normal spring, early in April for England and the third week for the North are the dates most suitable for planting out. The staking of the tiny plants is a tedious process, but I never allow them to mix their tendrils or to get off the straight. It is worth while to go to this trouble, as in planting out each little stake is handy and there is no confusion. Prior to planting out I withhold water for a few days, because when turned out of the pots the roots separate easily and with ordinary care the fibres need not be damaged.

The plants are put out about 1 foot apart and carefully tied up. I am exceedingly particular with this work. It is obvious, if every shoot is secure, that the chances of damage from wind are reduced to a minimum. The hoe is constantly in use to aërate the soil, and this operation is most needful after rain, because the soil cakes. I train the bines to the outside of the supports, because the flowers are more easily gathered.

When the flowering season starts, daily cutting is the order and there is no hesitation about taking off blooms that are fully developed. I cut every spray when it is full out. In the early season it does not matter much; but later, if the petals drop and find a resting-place on the bine in damp weather, one may say good-bye to the plant. These petals are charged with poisonous sap, and what are supposed to be diseased plants late in the season, or after a spell of wet weather, are caused by mould forming on these petals and penetrating the bines.

I usually start surface-feeding in the last week of July with a weak solution of sheep-manure; the strength is increased by degrees. Nitrate of soda I leave severely alone, as it tends to rush the plants too much and softens the stems of the sprays. I have used most of the first-class

artificial manures, and they are all suitable for use now and again; but I use all these sparingly. Some interest was taken last year in my method of training, viz., on galvanised wires. Messrs. Hurst and Son had their trials of garden Peas trained on similar wire to suit the varying height of the Peas, and they looked so trim and nice that many made enquiry regarding them. Mine are 6 feet by 4 feet. For circles I bend (and this is easy) two of them into circles and place one on the top of the other, making a circle 8 feet high and 6 feet in circumference. For rows I run them along with 8-feet stakes placed 6 feet apart. The stakes can be driven 2 feet into the ground, and 2 feet of the top wire is above the stake. I use a double row of wire, placing my plants in the centre and training to each side. I have seen a single wire used, and it does very well, but the double row gives more air to the plants. These wires are practically indestructible, and, though rather expensive to start with, their lasting power and the ease and small space occupied when packed away for the winter make them a good asset for the grower. I allow 6 feet between the nearest point of each circle, and the sections cut in the lawn are about 5 feet wide.

Duns, N.B. A. MALCOLM.

COLOURED PLATE.

PLATE 1366.

ROSE TAUSENDSCHON.

THIS beautiful new rambler Rose is doubly welcome to the Rose-lover, for not only is it a great gain to the group, but it clearly shows that we may reasonably expect other good large-flowered novelties by cross-fertilisation. In my opinion it marks as distinct an advance as when the Rose world received Crimson Rambler and, later on, Dorothy Perkins. Tausendschön (which means a thousand delights) really comes midway between the small-flowered rambler Roses and the large-flowered climbing Teas and Noisettes, but retains the huge clusters so much associated with the rambler tribe. It is not at all uncommon to obtain one spray fully 12 inches across, and the individual flowers, so quaintly fashioned and crimped, are sometimes as much as 3 inches across. The colour is a beautiful shade of light rose pink, with a clear white base to the petals. One feature of the Rose is the durability of its clusters; they often last on the plant fully a month, when kept in a cool house shaded from the sun. All who grow these beautiful rambler Roses as pot plants should take care to place them in a cool temperature when the buds begin to unfold, for then not only are they more lasting in effect, but the colour is considerably improved. As with most of the rambler group, one must wait for two or three years before the full beauty of the varieties can be realised; and it is almost libelling a novelty to exhibit small one year old grafted plants in bloom, when one remembers what majestic specimens are possible with age.

Gardeners should find this novelty one of great value for all floral decorations, for the exquisite colouring blends so well with Carnations and other occupants of the conservatory. For outdoor use one must not expect Tausendschön to ramble away like a Dorothy Perkins, so that in planting it should be given a position such as a pergola or an isolated pillar, where its beauty may be fully seen.

I look forward to the time when we shall see this variety growing on standards, for it cannot fail to be at once most attractive, as, apart from the flowers, it has distinct pale grass-green foliage and wood, the latter being almost as thornless as the so-called thornless Rose Zepherine Drouhin. Its season of flowering begins about the third week in June, thus having as companions such sorts as Electra, Wedding Bells, Trier, Tea Rambler, Psyche, Grüss an Zabern, Gardenia, Jersey Beauty, Joseph Billiard, Rubin, Claire Jacquier and Flora. Tausendschön grows well on a wall with a south or west aspect. It could be planted in conjunction with Dorothy Perkins and Hiawatha, these two latter beginning to bloom when Tausendschön is waning. It was introduced from Germany by Herr Schmidt in 1907. ROSA.

NOTES OF THE WEEK.

FORTHCOMING EVENTS

February 9.—Royal Horticultural Society's Meeting.

East Anglian Horticultural Club—Annual meeting.—Nearly seventy members sat down to the nineteenth annual dinner of this club, which was held at Norwich. Mr. J. Powley was in the chair, supported by the most prominent horticulturists of the district. A lengthy toast list was prepared. "Success to the Club" was ably proposed by Mr. J. E. T. Pollard, a former hon. secretary of the Norfolk and Norwich Horticultural Society. This was replied to by the president. Mr. L. Smith proposed "Success to the Norfolk and Norwich Society," which for over seventy years had been holding shows in the district. Mr. William Smith replied, and said that although the finances were not quite so satisfactory, he hoped the tide would soon turn. Mr. T. B. Field proposed "The Royal Horticultural Society," and impressed upon the younger members the advisability of taking interest in the examinations of this society for certificates. Mr. Charles Daniels responded, and spoke of the good work the society is doing at Wisley. He incidentally remarked upon the desirability of a local garden for horticultural experiments.—P.

Jubilee Flower Show, Haarlem, 1910.—The opening date for this show, to which we have referred before, is now definitely fixed for March 23, 1910. Consequently it will be open before Easter, to be closed after Whitsuntide (May 15). The show will be divided into a permanent exhibition in the open and three temporary shows in buildings. The co-operation has been obtained of Boskoop, Aalsmeer and other important horticultural places, and the exhibition will therefore afford a splendid opportunity of giving a very complete idea of Dutch horticulture, especially as far as bulb culture, nursery stock, trees, shrubs and flowers are concerned. The first temporary show is to be held at Easter time; the second about the middle of April, during the flowering season of the bulb fields; and the third in the first days of May. Prince Henry of the Netherlands has most kindly consented to be the patron of the exhibition; Queen Wilhelmina and the Queen-Mother are also patrons.

Redhill, Reigate and District Gardeners' Association.—At the annual general meeting, held recently, Mr. W. P. Bound presiding, the report and balance sheet for the past year were presented by Mr. Rose. The balance in the bank at the end of the session was £14 3s. 2d. as compared with £22 12s. 5d. at the end of the previous year, the deficiency being accounted for to some extent by the falling off of subscriptions. Although the membership had decreased from 225 to 190, much valuable work was done during the past year, the lectures being well attended. The library, too, had been made good use of. The hon. secretary, Mr. Rose, was presented with an honorarium of £5 as an appreciation of services rendered. Sir Jeremiah Colman, Bart., was re-elected president; Mr. W. P. Bound, chairman; Mr. W. Seaman, librarian; and Mr. Rose, hon. secretary and treasurer.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Sweet Peas.—Seedsmen who may not be essentially Sweet Pea specialists pay liberal tribute to the beauty as well as popularity of this charming flower by depicting some varieties in colours on the covers of their seed lists. While these illustrations are very beautifully done and most faithfully depict the varieties named, they constitute also a high tribute to the colour printer who can thus present flowers of such varied hues and such delicate and refined markings as these illustrations exhibit. I have before me the catalogues of Mr. Breadmore of Winchester, a well-known Sweet Pea specialist; of Messrs. Dobbie and Co., Rothesay, not less well-known for their varieties; and of Messrs. G. Bunyard and Co., Maidstone, who jointly depict some eighteen varieties, mostly new or very beautiful, and so admirably have these portraits in each case been done that it would be difficult to say which are best. These pictures are to the uninitiated, however, most useful in enabling them to select those varieties they may prefer, as well as offering opportunity to become familar with forms of floral beauty with which hitherto they may have been ignorant of. When it can be said with truth that each flower is pictured exactly as in life, higher praise cannot be furnished. But the real tribute paid by these pictures, after all, is to the wondrous beauty of the flower itself. Every year brings some fresh breaks of colour, and there seems to be no limit to development in that direction. But it is one of the fine features of these novelties that they seem to lose nothing in strength or robustness; happily so, as with so many plants that are being repeatedly inbred weakness of constitution is too apt to follow. Those who have seen such trials as the National Sweet Pea Society holds yearly at Reading, or those conducted on such huge scales by seedsmen, note that new or old varieties all seem to show that full growth which has characterised the Sweet Pea from its earliest days. Novices in Sweet Peas will probably find in the huge number of varieties offered in seed lists a stumbling-block to their ardour at the outset. A list of some 100 named varieties doubtless presents difficulty in selecting the best where all are so good; but if the novice in question will become a member of the National Sweet Pea Society, at a cost of 5s. yearly, he will get a schedule, in which will be found classified the various colours or markings Sweet Peas now present, with what the floral committee regard as the best of these various sections at the head of each list, and thus find very material guidance. But Sweet Peas are cheap, and because costing so little in that way encourage the growing each year of a considerable collection. To be enabled to grow a numerous variety it is best to sow in clumps in holes 2 feet broad and which have been worked 2 feet deep, having some well-decayed manure buried down into the soil. Then with fifteen seeds sown on each mound, the plants later thinned down to nine only, a beautiful show will result.—A. D.

Getting rid of field mice.—In answer to the enquiries of "H. E. C." as to the best methods of getting rid of field mice from a garden, I can say from experience that I am able to keep them in check in my own garden, where they have been a great pest, by the use of the "Little Nipper" mouse-trap. Field mice are very easy to trap with these at night if baited with cheese. If "H. E. C." will buy a dozen of these traps and set them all every afternoon he will soon have a considerable bag of his enemies, and if he perseveres will have reduced their numbers within bounds. The traps should be visited as early as possible every morning and not left set in the daytime, or many a robin may fall a victim to them. A sharp

ook-out must always be kept for any holes mice nay be making in the garden, and a trap set outside them at once. Where mice are known to nfest a garden even in small numbers, Peas and Beans should never be sown without first being noistened with a small quantity of paraffin and hen rolled in powdered red lead. If it is possible, owls should be preserved and encouraged as both the gardeners' and farmers' friends, for not only do they keep the field mice down, but also account for a large number of young rats.—C. G. O. B.

—— In answer to "H. E. C.'s" question, 'How to rid a garden of field mice" I have found nothing answers so well as a really good cat. Three years ago my lawns and a quantity of rough grass surrounding them, in which I grow many thousands of Daffodils, were all honeycombed with the runs of field mice. I tried various traps, &c., but these only caught birds, or so few mice as to be useless. Then I got a really good cat, and now my garden is perfectly free from these pests.—E. M. C. C.

—— In answer to "H. E. C.'s" query on page 26 of THE GARDEN, "How to rid a garden of field mice?" I should like to say that the best way I have found (being at one time troubled with the same pest here) is to bait plenty of traps with dry Peas, one or two tied to a trap with fine bouquet wire threaded through the Pea. The field mouse, being a vegetarian, it is of little use baiting with cheese, while it greedily eats the Peas. Now is the best time to start the trapping, and persevere with it during the winter, before the mice begin to breed and also before there is much for them to eat in the way of vegetation. I venture to say that "H. E. C." will not be troubled nearly so much if he follows up my method for a few weeks.—J. CHILCOTT (Headgardener), *Chipchase Castle Gardens, Wark-on-Tyne.*

Hardy evergreen shrubs.—I fear the writer of the essay on "Evergreen Shrubs for Winter Effect" rather over-compliments Privet in classing it among evergreens. In my own case and in this locality Privet has been almost totally defoliated by fogs and the recent severe frosts. Few shrubs shed leaves so fast under fog influences. The Cotoneasters are far from being reliable evergreens. C. Simonsii has been leafless here almost all the winter, and is tolerable chiefly because of its numerous berries. Crataegus Pyracantha also sheds its leaves materially in foggy weather. A true evergreen should be so hardy that it will retain its foliage in robust health under any weather conditions, short, of course, of death. I should have expected that the title of the essay necessitated reference solely to such evergreens as could be relied upon to furnish good winter foliage effects in the open, and because of that assumption should have ruled out not only shrubs that are semi-evergreen, but such tender ones as Choisya ternata, Escallonia macrantha, Magnolia grandiflora, Mistletoe (not a *bonâ fide* shrub) and Yuccas (these not being classed as shrubs). Still, they, and especially Y. recurva, are some of the noblest winter evergreens.—A., *Kingston-on-Thames.*

Vegetable competitions at the Royal Horticultural Society's meetings.—The Royal Horticultural Society has done well to include vegetables for competition at the fortnightly meetings during the next twelve months, and one important point is that forced vegetables are included, as, now that we hear so much about French culture or intensive cultivation of vegetables, it will give home growers an opportunity to show that the new system so much talked about is really nothing very new, but consists merely of ways and means which in many British gardens are difficult to adopt. For many years I consider we have done much in forcing vegetables. In many counties a special feature is made of forcing Potatoes in quantity with fresh tree leaves and manure. For over thirty years I forced large quantities of Asparagus in this way; I do not mean merely by lifting the roots, but by forcing in permanent beds, and the same remark applies to Lettuces. Of the latter, how few gardens there are of any size where these plants are not in frames on a warm bed of leaves or litter. It is a general rule to sow seeds in January of such varieties as Golden Ball or Earliest of All, and have Lettuces equal to those imported in the early spring from the Continent. Again, Radishes now are regularly forced under glass in most gardens, also Carrots and Turnips, and of late years more attention has been paid to this mode of culture. We can also grow Peas and similar vegetables to perfection under glass, as proved by exhibits staged at the Temple Show, and many growers at the present day get their first crop of Broad Beans from indoor sowings. My remarks will show that as regards forced vegetables we are not so much behind as may be thought by those who have not studied the subject. I am very pleased that the council of the Royal Horticultural Society has brought this matter to the front, and I trust there will be good competition. Salads should find much favour in March, April and May, as Lettuces then will form an important item.—G. WYTHES.

WRITTEN FROM THE RIVIERA: MIDWINTER.—I.

FLOWERS "AT HOME."

TO flower-lovers fresh from England, particularly to those who love flowers well enough to make companions of them and understand their looks and ways, it comes with something of surprise to find how the journey of a few hours southwards will present the very same plants and flowers to us under quite new aspects. After one day and night *en voyage*, waking up among the sun-bathed Olive groves and Vineyards of the French Mediterranean, we find numbers of our old companions, friendly as ever, and even more welcome among so much that is unfamiliar, but somehow they have put on different faces.

How so? Well, many of them have gained a new expression. They have an air of gaiety and *bien-aise* that has changed them indescribably. It is like seeing a child again, just home for the holidays, "grown out of knowledge," as the saying is, or like the first sight of acquaintances returned newly to the world after having done rest-cures that have made them plumper and rosier than we remembered them, or, indeed, than they really were before. There is something of the same difference, too, only not so great, of course, as between a picture dimmed with age and dust, and then renewed by cleaning, or as if our vision had suddenly become keener and clearer; size and colour both are magnified.

All this is not surprising when we remember how we English people annex the plants and flowers of every shore and clime, expecting them to fall in with our ways, talk our language and make the best of an alien climate. Wonderfully well they do it, bearing all manner of inconveniences, such as dampness, lack of sunshine and many other ills with so much amiability that we forget the poor things are *dépayses;* but only see the same plants when they are actually in their own homes—it is a revelation!

Look, now, at this clustering Ivy. Its berries hang in heavy bunches, deeply coloured as the purple Grape, and ah! how full of juice. What a surprise they would be to an English robin! And here is an Aucuba—who ever dreamed how bright the colour of its variegated leaves could be, or how vivid the scarlet of its berries? And they are so large that if really made of sealing-wax—which they much resemble—it would take only a few of them to spread a seal as big as the Lord Chancellor's.

Let us take a winter walk amid the undergrowth of the pleasant woods that clothe the sides of the snow-capped Estorels. Now and again we shall cross by stepping-stones the bed of some clear mountain stream. Every movement liberates the fragrances of Thyme and Lavender. Brushing through thickets of Juniper and Cistus, we stoop to gather up the fallen Pine-cones that will blaze finely in our wood fire to-night. We must laugh a little at the poor bare-legged Cork trees, that do not seem at all put out, however, at having no socks on, even when the mistral blows. Oddly enough, Cork trees that are not barked look uncomfortable in another way. How curious it is, too, that Corks should grow close to Vineyards; so convenient!

How gay the world is, though it is still midwinter! See how the morning sunshine falls on the long leaves of the Eucalyptus trees, of which the top branches are already in flower; but the stems are shedding their outer bark untidily. Some of this, too, shall feed our aromatic fires.

Here and there a thin sheet of ice may be sparkling, but Jack Frost's fingers do not make much difference. Neither the Myrtles nor the Oleanders (native here) care a bit about him. Myrtle bushes, less formal than in England, are spreading and almost clinging over and about the sun-warmed scattered stones. Day after day we visit a certain boulder, where blue-black Myrtle berries, half hidden in glossy, fragrant leaves, lie close to the clean white rock—they look so happy there. We visit this green-robed boulder almost every day. It is a landmark in the woods, and good to lean against. Some fellow-wanderers find a wonderful pale green prickly plant with great big scarlet berries. "What can it be?" they say. It is really nothing but Ruscus, the common Butcher's Broom, that often looks depressed in English shrubberies, but is so heartened up beneath these sunny skies as hardly to be recognisable.

In the garden the most amazing incongruities await us. Inmates of the conservatory—when in England—are filling open-air beds and borders. Very odd look the pinky Primulas when used as "bedders," and very funnily they fraternise with extremely English-looking red and white Daisies, homely Violas and sturdy Stocks. Hedges of a winter-blooming shrub with bright green oval leaves and the prettiest white flowers, like little stars, are common. The flowers are at their best in January and fade before the Laurustinus blooms. The gardeners say the shrub is Epatoire, but I do not know its English name. It grows very well, they say, in Southern English gardens. Winter Honeysuckle makes a tall, strong shrub as fragrant as our English Woodbine. Mimosa trees already are tinged with yellow, but the harvest of their golden balls is not yet due. Agaves and Palms are everywhere. Among the stones in sunniest places bask curious Cactus plants like drowsy reptiles. These are not indigenous, but behave as if the place belonged to them. We never can make up our minds about these spiny creatures. Do we really like them? Have they any business in this peaceful Paradise, or do they recall the serpent?

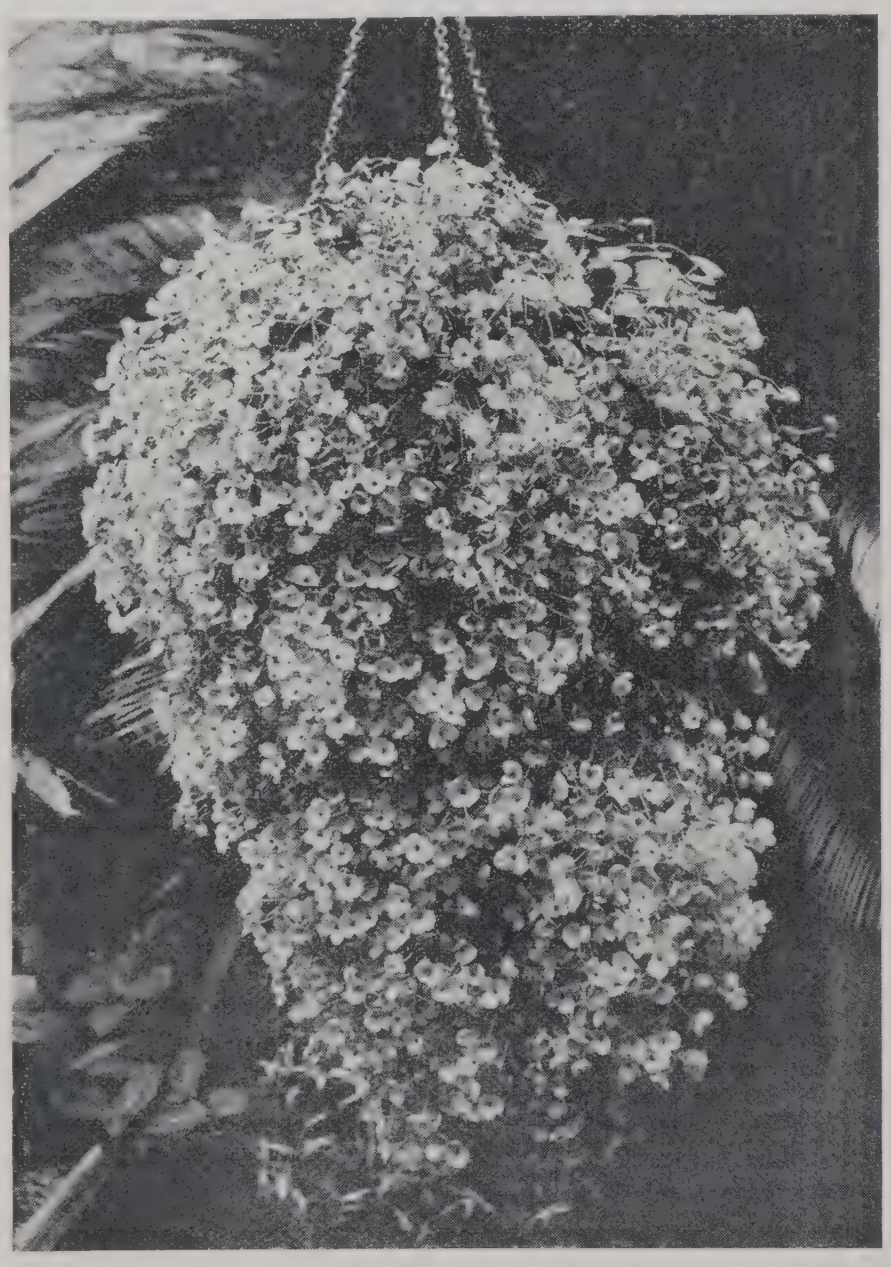
The mixture of trees and flowers and plants that make their home upon the sunny Mediterranean shore is puzzling. From four different continents the hand of man has gathered and dispersed all over it many kinds of seeds and slips and cuttings. Cypresses from the Orient, Oranges and Lemons from sub-tropical Asia, Fig trees from India, Agaves from Central America, blue Gum trees from Australia—all have come to stay, and some of them were brought so long ago that the date of their introduction is forgotten. Truly is this the land of flowers; and flowers, like human beings, are never so happy or seen to so much advantage as when "at home." Herein, to many an English flower-lover, lies the greatest charm of the Riviera.

FRANCES A. BARDSWELL.

THE GREENHOUSE.

BEGONIA GLOIRE DE LORRAINE.

THIS Begonia was raised in 1891 by M. Lemoine of Nancy, its parents being B. socotrana and B. Dregei, and two years later received a first-class certificate from the Royal Horticultural Society. A few years ago it was unknown, but to-day it is difficult to find a garden where it is not grown. No warm greenhouse is now considered to be properly furnished in the winter unless it can show a display of this Begonia, whose rapid leap into popularity has been most remarkable. It is, undoubtedly, the best of its class for keeping up a succession of bloom, and its compact habit and bright green foliage are further recommendations, while among all the fibrous-rooted varieties there is nothing to equal it in free-flowering qualities. It is astonishing for how long a time this Begonia will continue to produce flowers. Commencing in the autumn, it may be had in bloom throughout the entire winter, well-grown plants continuing to bloom for at least six months, and, after the Chrysanthemums are over, a lovely effect may be produced in warm conservatories before the forced bulbs and shrubs are present in quantity. It is essentially a plant that well repays careful treatment, and the difference between a fine specimen, symmetrical and well-flowered, and a weakly plant with few blooms is very striking. It has an extremely pretty appearance if grown in wire baskets, as in the case shown in the illustration, which gives a view of a plant grown in the gardens at Brookhill, Kingswear, South Devon, the residence of Mr. R. F. Wilkins, that reflects the greatest credit on the cultivator. S. W. FITZHERBERT.



A FINE SPECIMEN OF BEGONIA GLOIRE DE LORRAINE.

CAMPANULA PYRAMIDALIS COMPACTA IN THE GREENHOUSE

THERE are many species and countless varieties of Campanula which at various seasons of the year beautify our gardens, but it remains open to question whether any one of them is more generally useful or enjoys greater popularity than the subject of this note. Campanula pyramidalis has been known in gardens for some 300 years, and, although a very old plant, it yet maintains a position in the forefront of hardy border plants, while superb specimens are seen every year in pots, so that it is really indispensable in a well-ordered garden during autumn. Often the Chimney Bellflower, as this Campanula is popularly called, proves perennial on well-drained, light soils; but in practice it is better to regard it as a biennial and rely upon annual sowings to maintain a vigorous stock of plants. February is a good month in which to begin operations. The seed is sown in well-drained pans or shallow boxes containing prepared soil and only just covered with sifted soil; the seed-boxes are then placed in a warm greenhouse and covered with glass, which maintains a uniform degree of moisture and heat and thereby hastens germination. When the seedlings appear the glass is removed and every encouragement given to the plants to gain strength, conserving the day temperature by all the available sun-heat. In due course the seedlings are pricked out singly into deeper boxes and returned to the greenhouse till well established. About the middle of June they are planted out in well-prepared ground; the plants stand 12 inches apart in rows 15 inches asunder, and every attention is given during summer and autumn to keep the ground free from weeds and in supplying water during periods of drought.

In the following spring select the strongest plants for growing as specimens in pots, utilising the remainder for furnishing beds and borders in the flower garden. Some care is necessary in lifting the plants, as the roots are very brittle and easily broken, so that any damaged parts should be pared over with the knife before potting. Pots measuring 6 inches to 7 inches in diameter and upwards are suitable for specimen plants, and are most generally useful. The potting soil should be as rich in plant food as that employed in Chrysanthemum culture at the final potting, as this Campanula requires liberal treatment to enable it to develop the huge pyramidal masses of flowers to the greatest perfection. When the plants are potted stand them close together upon a cinder bottom in the open air, and when growth is somewhat advanced any weak or belated growths should be rubbed out and the strength of the plant directed into those shoots retained. Strong Bamboo canes are placed to each shoot at an early stage, to which the stems are tied, completing this operation before the flowers begin to expand.

As soon as the flower-buds begin to open the plants are removed to the greenhouse, choosing a position shaded from direct sunshine; here the flowers will open and under these conditions last in beauty for more than six weeks. All decaying flowers must be removed as early as possible, using small scissors to cut the spent blooms away; lateral flower-buds will soon open and replace those that are past. Regular applications of some approved fertiliser in liquid form should be given the plants once a week during the summer, discontinuing this practice when the plants are in full flower.

Two distinct colour forms of Campanula pyramidalis are cultivated in gardens, namely, blue and white; the latter is most generally employed in pots, as it has some advantage over the blue shades under artificial light. There is also a splendid form which I procured three years ago under the description of the Syon House variety. This form, shown in the illustration on page 54, is characterised by having flowers of greater substance and much larger than the type; the corolla segments are also more rounded at the points, while the spikes are fuller and of greater depth. The habit of this variety is dwarf, and rarely exceeds 4 feet in height, whereas the type frequently reaches 6 feet and 7 feet when grown in pots. Seeds of both blue and white varieties are offered this season under the name of C. pyramidalis compacta. This variety was raised by Mr. Wythes when he was gardener to the Duke of Northumberland at Syon House, Brentford. It has not the grace of the type, but is a good plant. THOMAS SMITH.

Walmsgate Gardens, Louth, Lincs.

THE ROSE GARDEN.

ROSE WHITE KILLARNEY.

A WHITE sport of that excellent Rose Killarney originated at the Waban Rose Conservatories, and Mr. F. R. Pierson of Tarrytown-on-Hudson, New York, purchased half of the stock, and it was in a house in his nurseries at Scarborough that I had the pleasure of seeing it. No better opportunity to compare this new Rose with the original Killarney could have been afforded, for there they were growing side by side in a house 300 feet by 60 feet, and therefore it was not a comparison of a few plants, but of thousands.

There is no question, in my mind, that the subject of these notes is a somewhat stronger grower than the variety from which it sprang and that the blooms are larger and have more petals; and another thing that struck me was the evenness of the quality of the blooms, a vaseful of selected flowers seeming to be very little superior to the general run, while the Killarney blooms varied considerably in quality. The white shade reminds me a great deal of Kaiserin Augusta Victoria, having the slightly greenish tinge in the bud, but opening to a pure cream or ivory white. It is hardly necessary to say anything regarding its form, except that it is the same as Killarney, with even deeper petals and apparently more of them.

I have tried to use moderation in describing this new Rose, though filled with enthusiasm. However, I will now venture to say that, should it prove to be as good out of doors as I have seen it growing under glass (and, judging from the original Killarney, there seems to be no reason why it should not), it will be the best white Rose we have, not even excepting Frau Karl Druschki, for besides being as large as the latter, it has in addition greater freedom of bloom and delightful fragrance. In concluding, I wish to say that it is the Waban Rose Conservatories' variety of White Killarney that I am writing about, for there is at least one other white sport of Killarney in America; but this I have not seen, and consequently know nothing as to its merits.

White Plains, N.Y. ALFRED L. SQUIRE.

THE FRUIT GARDEN.

MEALY BUG ON VINES

[In answer to several Correspondents.]

I AM pleased to advise on the extermination of this pest, and in doing so will not confine myself to one remedy, but to several which I have found effectual. There is no other pest so difficult to get rid of, as, though there are several remedies advised, some have proved to be worse than the insects, as they kill the Vine. Of late years I have heard of several cases where the pest has been experimented upon with hydrocyanic gas or vapour; but I am not able to advise upon this matter, not having yet fully decided as to its merits in the cases that have been tested, and I will therefore rely upon older methods. Only recently I was visiting a large garden, and was told that some years ago the Vines and plants were badly infested with mealy bug. At present the pest has been quite destroyed—indeed, has been for some few years—but it took fully three years of patient work and labour to get quite rid of it. In this case Fir-tree Oil was the remedy. Even now, when fresh plants are introduced they are put in quarantine for a time, a small detached house being used for the purpose, and the plants are constantly examined and dressed with insecticide.

Petroleum and gas-tar are frequently used as a winter dressing, and both are dangerous if used in a raw state. The Vine having a porous bark readily absorbs the first-named, and the gas-tar, commonly known as coal-tar, is equally injurious if used at all freely. Only last September I saw a good lot of canes that had the previous winter been painted with the tar, and the rods were fast dying; only here and there was there any life, a few weak back-growths showing near the base that had escaped the dressing. Coal-tar in its natural state is most injurious, and though safe when mixed with a liberal quantity of clay—say, one part of the tar to nine of clay, the latter having been puddled and thoroughly mixed with the tar by the hands, using boiling water so that it becomes like thick paint and allowed to cool before using—I would much rather rely upon what may be termed simple measures.

One correspondent asks for a wash, not paint, and I think washing the rods when in a dormant state will go a long way to get rid of the pest and, at the same time, do no harm. For some seasons nicotine dressings were effectual and quite safe. Nicotine insecticide is a splendid destroyer of mealy bug, but the proportions should not be exceeded which are advised by the makers, and the Vines syringed afterwards with tepid water. The insecticide must be thoroughly rubbed into the bark and rough portions of the Vine, but very lightly on the new wood of the past year's growth, as this part of the Vine can readily be cleansed with tepid water. I have great faith in liquid soap nicotine. We now come to petroleum. This should always be used in a soluble condition, as then it is evenly distributed. In a raw state the oil does not mix readily, but it is now prepared for sale ready for use as soluble paraffin oil. Raw petroleum can, however, be made soluble by mixing it with soft soap, say, at the rate of half a pound of soap and one wineglassful of the petroleum to one gallon of tepid water.

I advise thoroughly washing at this time of year all portions of the house, paint and woodwork with the mixture and covering all brickwork with fresh lime; indeed, no part of the house must be omitted, as even the soil is a resting-place, and the surface should therefore be scraped away and great care taken to cleanse the stems of the Vine near the soil. If possible, a great saving of labour in the future will be effected if the wood and iron work are painted, as, no matter how carefully the washing is done, the pest reappears and must be dealt with at once. By painting many insects are doomed that otherwise may escape, and the few that may have escaped can be dealt with by going over the Vines twice or thrice a week with a small paint-brush and some of the soluble paraffin in a saucer early in the season, just as growth is active. This done and a thorough winter cleansing as advised given the following season, the enemy will be got rid of. If possible, do not force badly-affected Vines for a season or two; then the rest and cleansing advised can be more thorough.

G. WYTHES.

THE NEW ODONTOGLOSSUM ARDENTISSIMUM NORMAN COOKSON. *(Single flower, natural size.)*

APPLES AND CANKER.

ACCORDING to my experience, King of the Pippins is liable to canker very much when worked upon the Crab stock in heavy soil if the roots are not kept near the surface. This is one of the varieties that can be depended upon to fruit every year. Trees of it planted in the ordinary way will show canker the second year when growing in heavy, cold soil; but by lifting them on to the surface and mounding the roots up the canker will be checked, the trees making a clean, free growth almost directly afterwards. My experience of canker in Apple trees is that it is the result of an unsuitable soil, aggravated by deep planting.

E.

ODONTOGLOSSUM ARDENTISSIMUM NORMAN COOKSON.

THIS new addition to the Odontoglossums was described on page 46 of our issue for the 23rd inst. The flowers were chiefly remarkable for their regular form and markings, the plant being apparently of a vigorous character. It was shown before the Orchid committee of the Royal Horticultural Society on the 12th inst. by N. C. Cookson, Esq., and gained an award of merit.

TREES AND SHRUBS.

SHRUBBY SPIRÆAS AND THEIR CULTURE.

(Continued from page 43.)

THE spring-flowering group really requires very little pruning, what is done being chiefly thinning after the flowers are over. The autumn group, on the other hand, must be pruned hard if the best results are to be obtained, and this pruning should be accomplished between Christmas and the early days of March. The clumps should be well thinned out, all weak shoots being cut clean away. The strong shoots should then be cut down to within 6 inches or so of the base of the previous year's growth. This will suffice for most of the sorts, but with such species as lindleyana and Aitchisonii, which when mature form bushes 8 feet to 10 feet in height, a modification of the principle is necessary. The wood in the case of these two sorts may be left considerably longer, especially when the branches are strong; it, however, does good to go over the plants and shorten last year's shoots, say, from one-third to halfway back. The species known as discolor, or ariæfolia, as it is sometimes called, requires little or no pruning, except an occasional thinning. Altogether there are upwards of 100 sorts to select from; of this number, however, the following are worthy representatives for general cultivation.

SPRING-FLOWERING VARIETIES.

S arguta.—This is one of the most beautiful of all flowering shrubs, and would certainly be given a place in the best dozen shrubs were a census taken. It grows 6 feet or 7 feet high and bears glistening white flowers with the greatest freedom from the end of March through April. It is excellent for specimen beds, isolated plants or for forcing. It is most easily increased by means of layers.

S. bracteata.—This is a strong-growing Japanese species which blooms about the end of May and early June. The flowers are white and borne in profusion. It forms a rather large, dense bush.

S. canescens is a Himalayan species of peculiarly graceful habit, with small greyish leaves and a profusion of white flowers, which appear in May and June. It grows from 7 feet to 9 feet in height.

S. Henryii.—Among recent introductions this stands out conspicuously as being a first-rate shrub. It is of strong growth and forms long, arching branches, which bear a profusion of white flowers in June.

S. media is another free-flowering white-blossomed sort. It grows freely and is one of the best of all for forcing. In some gardens it is known under the name of confusa.

S. prunifolia flore-pleno.—This is a double-flowered form of a Japanese species. Unfortunately, the flowers are formed very early and they are, consequently, frequently damaged by frost.

S. Thunbergii and *S. van Houttei* are very beautiful Spiræas, the former for its foliage in autumn. S. van Houttei grows to a height of

8 feet or 9 feet. Like the former plant it has white flowers and blossoms freely.

SUMMER AND AUTUMN FLOWERING VARIETIES.

In this group a greater variety of colour is found, white, cream, pink and red being represented.

S. Aitchisonii is one of the most beautiful of all. It is a native of Afghanistan and grows 8 feet or 9 feet high. The leaves are large and pinnate, the flowers white and borne in panicles up to 1½ feet or 2 feet in length.

S. discolor.—This is a strong-growing shrub from North America. It is quite distinct from all other sorts and is conspicuous by reason of its panicles of cream blossoms.

S. Douglasii is a dense-growing sort with stiff, upright inflorescences of red flowers. It may be used for the wild garden or for cover work.

S. japonica is a well-known species growing 1 foot to 2 feet in height. It is remarkable for its floriferous character, the flowers being red in colour and borne in large, flattened heads. There are numerous varieties, of which the best are alba, with white flowers; Mrs. Anthony Waterer and ruberrima, with deep red blooms; and glabrata, a very strong grower with larger inflorescences than the type.

S. lindleyana is a similar-looking plant to S. Aitchisonii, but is rather coarser and the flowers are cream in colour.

S. Menziesii is a strong-growing North American plant, with dense, upright heads of red flowers. There are several varieties, of which the best are lenneana and triumphans.

S. salicifolia completes the selection. It is a very ornamental shrub, with large panicles of white or pinkish blooms. The variety paniculata bears exceptionally fine heads of flowers. This and the last-named may be used in the wild garden. With this selection it is possible to have Spiræas in bloom in the shrubbery from the latter end of February until the end of September, while for five months of the time a good display of flowers will be produced.

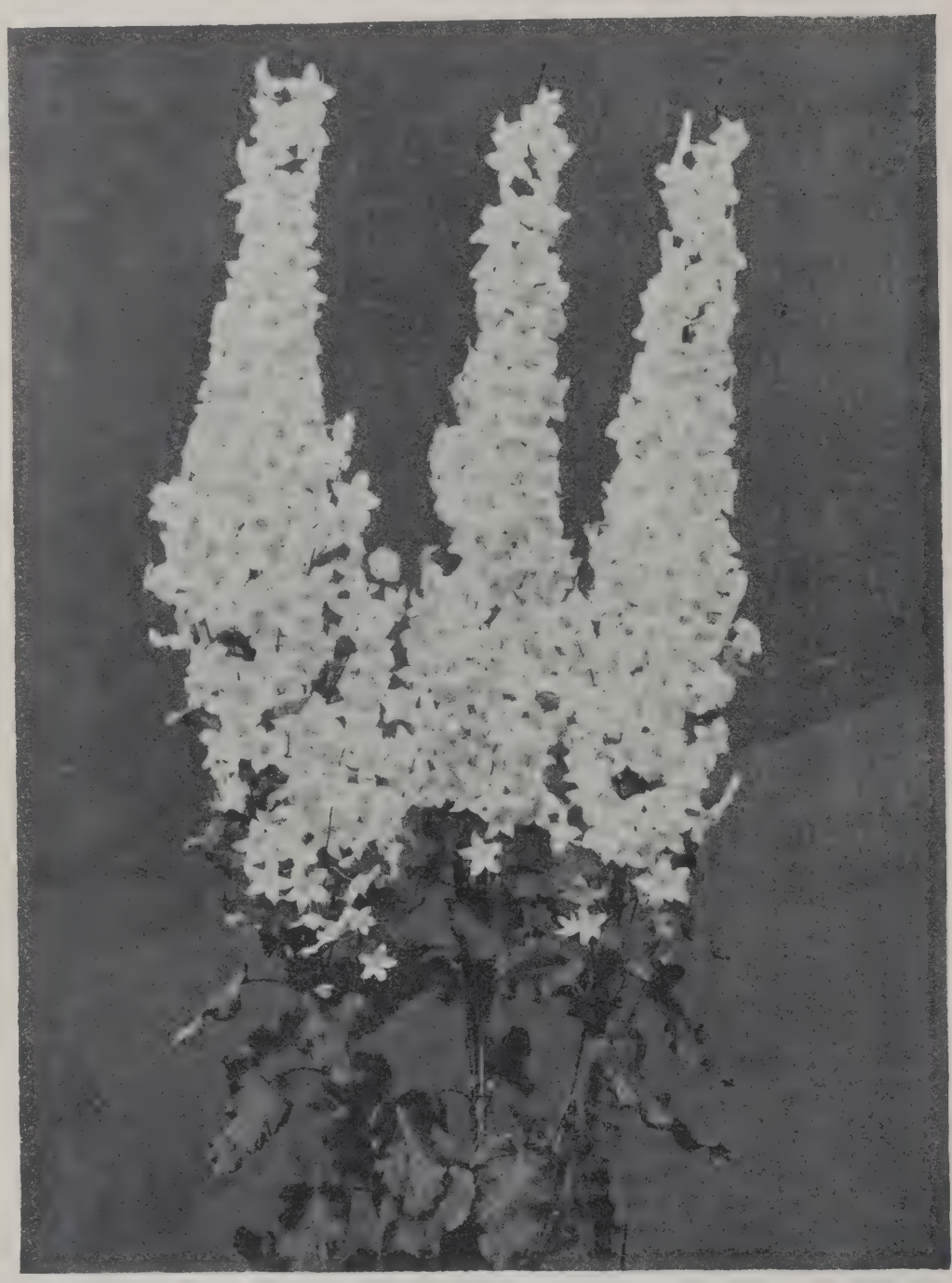
W. DALLIMORE.

SHRUBS IN SPRING BEDDING.

I HAVE been much interested in reading "A. W.'s" remarks on the spring bedding prize essay, page 618, Vol. LXXII., and I thought the Editor's offer to him was likely to bring out some useful hints on this very important subject; next comes "E. M. D.," on page 630, criticising "A. W.'s" style of spring bedding, also telling him to be practical in his next article. I have now read "A. W.'s" second article, which is rather long, but I feel I can agree with him on many points in it, and I would like to make a few remarks on this very important branch of gardening.

In the first place, the gardener's aim should be to raise those kinds of plants which are suitable for the beds, borders, &c., he is called upon to fill, and, whether the beds are close under the windows of the mansion or a long distance away, the style of the building is a point that must be considered.

I believe in the judicious use of a variety of plants, if it can be done, but in the majority of beds on lawns the design of the beds is not adapted to the use of shrubs. But where the design is a large, bold one, and the beds large and not of a fantastic shape, flowering shrubs could be used with telling effect in combination with other plants and bulbs. I am afraid I cannot agree with "A. W." in recommending Garrya elliptica or any other evergreen shrub I know. I have never thought Cydonias successful plants; Ribes are certainly very cheap and pretty, but there are many other things I use in preference to them. Daphne Mezereum I cannot recommend; it may succeed well with "A. W.," but here it is a very wretched plant. Neither do I recommend Hamamelis arborea; the habit of growth is too awkward. Chimonanthus fragrans is deliciously scented, but the flowers are not showy enough for spring bedding.



THE DWARF CHIMNEY BELLFLOWER (C. PYRAMIDALIS COMPACTA). (See page 52.)

A very large number of spring-flowering shrubs are grown here for the spring flower garden, but are not used in the beds, for the simple reason that the beds are not adapted for them, or I should use them freely for spring bedding purposes, as I am confident they would be extremely telling in large beds.

The shrubs I have found to do well are bush Cherries. All the varieties, both double and single flowered, are good, and a well-grown bush Morello Cherry in full flower is a charming sight. The Crabs are all good and make nice bushes. The ones I like best are Pyrus floribunda, P. f. atrosanguinea, P. spectabilis flore-pleno, P. coronaria flore-pleno, P. neidwitzkiana and P. Malus Bertinii; the latter is very pretty just as the flowers are ready to burst open. I have also grown a very great number of the freest-flowering Apples; these give lovely effects, but I am now giving the preference to the Crabs I have mentioned. Forsythia viridissima, F. suspensa, F. Fortunei and F. Sieboldii are also excellent. The double-flowered Peaches are splendid, both the crimson and rose, and the bitter Almond need not be left out—it is both early and beautiful; but the double white Peach is not vigorous. Then among the Prunuses we have some interesting, easily-grown and free-flowering subjects. Those I prefer are Prunus Pissardii, P. triloba, P. sinensis alba-pleno, P. s. rosea-pleno and P. spinosa flore-pleno. Some of the early-flowered Spiræas are useful. I can recommend Spiræa confusa, S. Thunbergii and S. prunifolia flore-pleno. Other shrubs could be mentioned, but space does not permit of too many; still, I would not like to leave out the deciduous Magnolias. These are most lovely subjects where they are a little protected from spring frost. They are rather expensive, and on that account do not come within the reach of all. Here several varieties are grown, and the ones I prefer are Magnolia conspicua, M. c. alba superba, M. c. soulangeana, M. stellata and M. s. rosea.

Now I am not going to say these plants could be lifted from the open ground and planted straightway into the bed year after year and be a success. Some might, such as Forsythia and Ribes, though I rather doubt "A. W." on this point. But here I will preach what I practise, with the hope of being considered practical, which I am sure "E. M. D." expects me to be. In these gardens are grown year after year about 400 of these shrubs. To start with, suitable small plants are bought about February (they can be had very cheap as small plants), the roots are pruned very hard back, and they are then potted into pots ranging from 8½ inches to 12 inches, according to the size of the plant. The compost I use is good fibrous loam, well-decayed leaf-mould, with a little wood ashes and bone-meal added; but the roots of the Magnolias are not cut back, and these would require a pot to take the ball without much pulling about. After potting they are all plunged in a bed of ashes in a very open, sunny place and well attended to during the summer. By this method of culture flower-buds will form very freely, and as a rule they will most of them go from four to six years without any further potting if carefully looked after as regards feeding and top-dressing. I have many plants at the present time which have been in the same pot for that number of years, all in perfect health and carrying masses of flowers every spring.

If I had large, suitable beds, I should certainly use these plants in combination with dwarfer, spring bedding flowers, sinking them in the beds just sufficiently to hide the rims of the pots, then covering the surface of the bed with other suitable plants and bulbs. In this garden they are plunged in suitable places on the lawn in large and small groups, let in the turf just sufficiently to hide the rims of the pots, and when the summer bedding plants come to take their place these shrubs go back again to their summer quarters.

Again going back to spring bedding plants, I consider the Polyanthus most useful (if a good

strain, such as Mr. John Crooks and a few others have worked up for us, is obtained); no other plant will equal them for spring bedding, taking into consideration their earliness, free flowering, duration of flowering and variety of colour. They are quite capable of making a grand display themselves. I consider it bad taste to mix Tulips, Hyacinths, or any other bulbs among them; neither do I agree with mixing any sort of bulbs among Wallflowers. Some like Wallflowers in separate colours, and I quite agree that they are very beautiful that way, but I must confess I much prefer a bed of mixed Wallflowers; there is something so very bright and cheerful about them. Should our employers deny us the packets of bulbs from Holland, we have nothing to fear, as there are plenty of easily-raised, cheap spring-flowering plants; but personally I should say, let us have both as long as we can, and if possible the shrubs also.

Sandhurst Lodge. W. J. TOWNSEND.

THE FLOWER GARDEN

SAXIFRAGA LINGULATA LANTOSCANA.

SAXIFRAGA LINGULATA is closely allied to the charming S. cochlearis, but has larger rosettes of leaves and larger flowers on taller stems. It is found on calcareous rocks in Northern Italy and the adjoining countries, and enjoys a sunny, well-exposed position, planted in gritty soil and packed tightly between stones. A much superior plant is the subject of the accompanying illustration, S. lingulata lantoscana, called the Foxbrush Rockfoil or Maiden's Wreath. It is found in the Maritime Alps, and, growing in vertical fissures, sends out the drooping flower-spikes on which the flowers are crowded, mostly on the upper side. Remaining a long time in flower, it is at once one of the most elegant as well as one of the most valuable plants belonging to this section of crusted-leaved Saxifrages.

Offsets are produced in plenty, and the plants may be easily increased by division soon after flowering. The severed pieces should be potted in very gritty soil and be kept in a close shaded frame for a week or two till they have begun to root. Then more air can be given, and in time the light left off altogether. Seeds also are produced and germinate freely, but unless care is taken it is liable to be hybridised, especially if other species are growing near. W. IRVING.

LATE CHRYSANTHEMUMS.

THE late varieties of Chrysanthemums have passed out of flower earlier than usual, and this is probably due to the exceptionally warm weather experienced for two or three weeks just prior to the housing of the plants. Few varieties seem capable of extending their flowering season many days in the new year. Framfield Pink, which is one of the latest of all, has been very disappointing these last two seasons. Instead of the beautiful colour which characterised it as probably the best of the late pinks, there is a variety of tints on each plant, ranging from deep pink to pure white. This variety has always been more or less inconsistent in regard to colour, but it seems to get worse, notwithstanding special cultural treatment.

A. J. Balfour is a good Christmas variety and of splendid growth. Its lovely pink colouring is very attractive under artificial light, which makes it invaluable for dinner-table decorations. Tuxedo may be relied upon to flower till the first week in January. It is exceptionally useful for cutting for the furnishing of large glasses, as it grows to a height of 5 feet or 6 feet, and its beautiful bronze and gold colour is very effective. The white and yellow Thomsons are to my mind the best late varieties we have; they keep fresh either when cut or on the plants longer than any other. There is a difficulty in securing enough cuttings of these two varieties, but this may be overcome by saving some of the old stools. Shake them out and repot them in the spring, then cut them down in the autumn, when cuttings will appear in plenty. We have lately discarded several of the old sorts which used to do duty for late work.

Royal Gardens, Frogmore. E. HARRISS.

SWEET PEA CHAT.

NOTES ON NOVELTIES.—Last season saw the exhibition, either at one of the great shows or in the splendid trial of varieties so admirably conducted at the University College, Reading, by Mr. Foster on behalf of the National Sweet Pea Society, of some of the finest varieties that have yet been brought forward. Those who saw them revelled in their distinctness and beauty of form and colour, the notes that were made numbered hundreds, and as many note-takers have been since disappointed. The plants grew and flowered with a freedom that was delightful; but, alas! they did not complete their life-history in the much-to-be-desired manner of producing a heavy crop of seeds, and some of the very best gave such poor returns in this direction that it was impossible, in view of the immense demand, to think for one moment of distribution.

The rich George Stark will not come into the gardens of eager growers until the season of 1910, while the equally superb Nancy Perkin is due to arrive at the same time. It is quite certain that the reception that will then be accorded to them will be such as has never been previously given to Sweet Peas in this country.

Although the best of the other novelties have been brought forward, it is regrettable that the stocks are so short that it is certain the supply will not be equal to the demand, and it is much to be hoped that the seed season of this year will be favourable to the ripening and harvesting of abundant crops, so that all will be able to have their desires fulfilled next year.

Now for a note on a few of the procurable (at the time of writing) varieties. Mrs. Andrew Ireland may be easily and simply described as a beautifully waved form of Jeannie Gordon; the flower is immense in size and of splendid substance. The King is a waved King Edward, and is a grand thing without a doubt. Both of these were introduced by Dobbies. If they are unprocurable, purchasers might do worse than try Apple Blossom Spencer for the former and King Edward Spencer for the latter. This does not mean that I consider them identical; as a matter of fact, I have not seen them growing together, and simply recommend this course from the published descriptions.

The reliable Unwin has failed many of us this time, and we have called down vengeance on his devoted head because we could not get the refined Zephyr. Why did he not get a big stock of it?—it is destined to become a great favourite. We shall have to fall back upon Mrs. Bieberstedt or Mrs. Walter Carter, both of which are very charming waved lavender varieties. Another lavender that must enter into our calculations is Lavender George Herbert, for the flower is very large and the shape excellent. It is in every sense of the word a very beautiful, almost perfect, variety. Those who like the flakes will have to obtain Jack Unwin, which is rose on white and a grand grower and bloomer. Baker's Scarlet promises wonderfully well, but the flower is smooth and the present demand is for waved blooms. Bath's Josephine Barnard, a rich rose Gladys Unwin, should have a great future if it is as good as the last-named. Robert Bolton offers Kitty Clive, a pale St. George and George Baxter, a waved maroon, which ought to be good considering whence they come. The never-failing Eckford has not as many novelties as we have known him catalogue, but one may judge from their descriptions that all are well worth growing.

Just one or two words about seeds. Each season someone wants to know whether old seed is as reliable as new. Let it be definitely known that it is not. It may grow well or it may not, and considering the price at which seeds can be purchased nowadays, it is a decided error for anyone to rely upon old stock. SPENCER.

SAXIFRAGA LINGULATA LANTOSCANA IN THE ROYAL GARDENS, KEW.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

VEGETABLE GARDEN.—The first sowing of Longpod Broad Beans may now be made, and if given good treatment they will produce their crop nearly, if not quite, as early as those sown in the autumn. Sow in double rows 3 feet apart, leaving a space of 9 inches between the two rows, and place the

1.—PORTION OF VINE SHOWING TWO LATERAL GROWTHS "SPUR" PRUNED, THAT IS, CUT BACK TO TWO "EYES" AND A THIRD LATERAL GROWTH BEFORE BEING PRUNED.

seeds so that each plant will be about 6 inches from its neighbour. Two inches or 3 inches is the proper depth to sow, and if mice are prevalent it will be wise to damp the seeds and then roll them in red lead. For an early crop of Peas sow in the warmest position in the garden, employing a round-seeded variety for the purpose. The bed must be thoroughly drained, and if the soil is of a clayey nature a trench 9 inches wide and 6 inches deep should be made, filling in 3 inches of this with a lighter soil mixture in which to place the seeds. After covering the latter with an inch or so of the prepared soil a slight trench will be left, and this will afford a little shelter to the seedlings when they appear. Old potting soil when sifted answers well for this work. Mustard and Cress may now be raised with ease in a warm frame or greenhouse; use shallow boxes filled with sandy soil and sow the seeds thickly on a perfectly level surface, merely pressing them into the soil with a flat board or the bottom of a clean pot; do not cover them with soil. Sow the Cress three days earlier than the Mustard, as it is of slower growth.

Greenhouse.—Now is a good time to repot the ornamental Asparagus where the plants require it. First clear away any old, useless growths that may be present, and also any insect pests. A good potting soil is composed of two parts fibrous loam, used rather rough, half a part each of good peat and well-rotted manure, and one part of coarse sand, with a quart of fine bone-meal or other approved fertiliser to each barrow-load of soil. In many cases a top-dressing only is required, as when the roots are healthy they do not object to a somewhat restricted area, providing, of course, that feeding is resorted to in the summer. For top-dressing remove an inch or more of the old surface soil and replace it with new, taking care to make the latter firm. When repotting mature or well-developed specimens remove the worst of the old soil, and so get the plant into a fresh pot of similar size to the old one if possible. After this disturbance the plants should be placed in the warmest part of the house and watered with the utmost care until new growth is well advanced. Seeds should now be sown of Cannas, Grevillea robusta, Petunias and Marguerite Carnations, as all will come in well for decoration later on, either for the greenhouse or for the open beds. Where Petunias are required for the latter purpose, however, the sowing should be deferred until the middle of February.

Flower Garden.—Push on with all possible speed any division or replanting that has not been done in the herbaceous border, as the sooner this is done now the better for the plants. Edges of lawns and verges should be trimmed neatly, as there will not now be much danger of their getting broken. Replace old, worn-out labels with new ones and attend to any odd work that can be done, otherwise when the busy season commences many small but important tasks will probably be left undone.

Window and Room Plants.—With the lengthening days these will need rather more water, but they still must be attended to in this respect with the greatest caution. It is too early yet to attempt repotting, as growth will not be very active. Bulbs in pots may be brought in as required, providing they are well rooted; place them in a semi-dark position at first until the tops are green, after which they should be given the lightest position possible, otherwise growth will become attenuated and weak. Fuchsias that have been resting may have the lateral branches pruned back to within a few inches of the main stem and then stood in the light to start, giving the soil a good soaking with tepid water. When growth is plainly visible the old soil may be shaken away from the roots and the plants repotted in new.

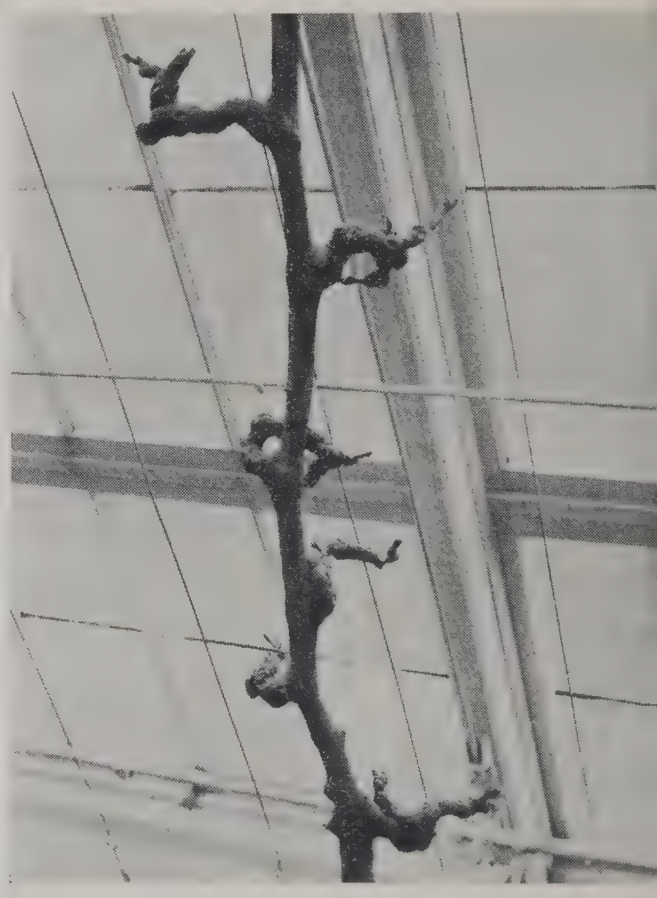
Fruit Garden.—Remove all weeds from the Strawberry beds and mulch between the plants with partially-decayed stable manure. The food contained in this will be washed down to the roots of the plants and be ready for them when growth commences. Where slugs are prevalent it is a good plan to give the bed a thorough dusting with soot before putting on the manure, taking care, however, to keep it from the hearts of the plants. H.

HOW TO PRUNE VINES.

READERS of THE GARDEN who are beginners in the culture of the Vine make frequent requests for information as to how to deal with their canes at different periods of the year. At no period is there a keener demand for information than in the earliest months, and just now the chief enquiry is, "How should I prune my Vines?" During the latter part of December and throughout January it is the chief seasonable operation to prune and cleanse Vines as soon as the leaves are off and the Grapes cut. There is a tendency on the part of most amateurs and beginners to delay pruning their Vines rather too long, and in consequence of this delay the late pruning causes bleeding and a loss of sap in the early spring.

Pruning is not nearly so difficult as many novices are disposed to think. To understand the method the application of a little thought and common sense is, of course, required. All Grape Vines should be pruned without further delay; not a day should be lost before proceeding with this important work. First of all we will suppose the roof of the vinery is well furnished with several main rods from one Vine or from more than one, but in each case the treatment will be the same. The whole of the Vine should be pruned at one operation, carrying out and completing the work on the same day. The method of pruning which we show in the accompanying illustrations may appear to be a very drastic one, but it is the only satisfactory means of maintaining the Vines in good condition and of ensuring a supply of desirable fruit.

Fig. 1 shows part of the main stem of a Vine a few years old with a lateral or side growth made during last summer. This lateral growth must be cut back hard to within one or two "eyes" or buds that will soon burst into growth after the pruning is completed. The practice of pruning varies in the hands of different growers. Some growers prefer to cut back beyond the one or two buds to which we have just referred, and leave perhaps not more than half an inch of wood abutting from the main rods. This practice is not so popular, however, as the method of pruning we advocate, which is technically called "spur" pruning. The two "spurs"



2.—ANOTHER EXAMPLE OF "SPUR" PRUNING; THIS SHOWS HOW IT IS POSSIBLE TO CONTINUE THIS SYSTEM OF PRUNING FOR MANY YEARS. GRAND CROPS OF GRAPES ARE OBTAINED BY THESE MEANS.

seen above the lateral growth in Fig. 1 show very clearly how the pruning of the third lateral growth should be done. A close inspection of the "spurs" will reveal the two "eyes," or dormant buds, on which the future success of the Vine depends. It will be seen that the "spur" is a hard woody protuberance from the main stem of the Vine, and that it evolves in

.—THIS SERVES TO ILLUSTRATE THE CUTTING BACK OF LATERAL GROWTHS TO TWO "EYES," COMMONLY CALLED "SPUR" PRUNING. NOTE THE MARGIN OF GROWTH RETAINED ABOVE THE UPPERMOST "EYE."

onsequence of the repeated annual cutting back f the lateral growth. As we mentioned before, he Vine in Fig. 1 is only a few years old, but to how the effect of the treatment prescribed herein n older Vines we show in other illustrations the spur" system of pruning on these. In each of hese illustrations (Figs. 2 and 3) we show how is possible to maintain a Vine for years in good ealth and condition by a careful system of runing on the "spur" method. The Vines in oth these instances are planted about 4 feet part, and when planted in this fashion and spur" pruned in the manner described above, ney should be represented by capable-looking spurs," as are so well defined in Fig. 3. These lustrations are of Grape Vines in the garden of ne of the most successful growers of these scious fruits, and represent the Vines just after e pruning operations.

For the benefit of the beginner it may be just well to describe the character of the buds that velop after the Vine has been pruned. We ve to remember that each bud should have a nch of Grapes in embryo contained therein, so at the more full or plump the bud the more omising is its character. By the same rule a in, pointed bud is less promising, so that when termining which of the two buds to retain ssuming the lateral was spurred back to o "eyes") preference should be given to the st mentioned, because of its more promising aracter. The weaker growth should be rubbed when it is quite young, thus concentrating all energies of the roots on the plump bud ained, which should in due course evolve a utiful bunch of Grapes. When pruning the nes see that a sharp knife is used and cut back h extreme care, leaving a fair margin above second eye. The illustration Fig. 3 aptly trays how this should be done.

n Fig. 4 we are able to give an illustration of method of pruning and training a Grape e by the extension method. This is one of finest examples in the country of the well-wn Alicante Grape grown by this method. e how strong and vigorous are the growths, how the rods have been trained to run down whole length of the vinery. The upper rod been trained in this way because of the lofty racter of the glass structure; by this means whole of the available glass area has been utilised. The lateral growths on one side of the rods only have been retained and these carried upwards. After the pruning has been completed the rods should be taken in hand and loose portions of the bark removed therefrom; especially round about the spurs is this necessary. Do not follow the unsatisfactory practice of scraping off the greater part of the bark with a knife, as this is quite unnecessary and contrary altogether to Nature. A thick covering of bark is Nature's provision for protection in extremely cold weather as well as a boon in dry heat and fierce sunshine, and is also a protection against the injurious effects on the sap when insecticides are used. Insect pests on Vines may be got rid of by scrubbing the rods with hot soapy water, doing this in most thorough fashion. Follow this with a dressing of Gishurst Compound or any other equally well-known and reliable dressing.

HOW TO GROW FINE CARROTS, PARSNIPS AND BEET.

It is impossible to grow nice, evenly-shaped specimens of the above kinds of roots in shallow, poor soil, and it is also very difficult to do so in heavy, clayey loam. In both cases the ground should be deeply trenched in the autumn; but every gardener will not be fortunate enough to have such trenched ground to deal with at the present time, so I will give a few hints on the proper treatment of neglected ground. No time should be lost in getting the soil trenched to a depth of at least 2 feet. The subsoil must be left below, but it must be broken up thoroughly, so that the roots of the tubers may penetrate it. The top portion should be left in a rough, lumpy state, as even a few weeks of exposure to the air, frosts and rains will prove highly beneficial.

The Right Kind of Manure to Apply.—Well-rotted cow-manure is the best for poor soil and stable manure for that of a heavy, retentive nature, but on no account should littery manure be dug in at the present time, because it would not decay. Such manure is best applied in the autumn. The unrotted straw causes the malformation of many roots. It seems a trifling matter, but when one considers how very tender, for instance, a young Carrot is, one cannot wonder greatly at the prevalence of forked roots in such soil. All littery manure should be lightly sprinkled with water and turned over once each week until the bulk has rotted down; then dig it into the ground immediately, thoroughly mixing it with the soil; do not leave it in lumps or heaps.

Sowing the Seeds. Even after such careful treatment of the clayey soil it is a difficult matter to obtain specimens good enough to exhibit—I do not mean as regards size, but in shape and of good quality generally—so we must take more trouble and make with neatly-trimmed stakes holes resembling fine specimens of Carrots, Parsnips and Beetroot respectively. Having made the holes, fill them with fairly good sifted soil and drop a few seeds on the surface. In due time the seedlings should be thinned out, one only being left for each hole. AVON.

THE TOWN GARDEN.

FROSTY WEATHER.—Do not remove snow from border plants or trees and shrubs, except in cases where the weight of it is likely to bear down and break off some of the branches. The snow will not injure the plants otherwise; but if a severe frost prevails at the time it will act as a protection. And if the snow is gradually melted by rain and the sky overcast, it will be an ideal thaw as far as the plants are concerned, as then very little harm will result. The same care must be taken in dealing with bedding-out plants and other subjects under glass and temporary coverings. Do not be tempted to remove any portion of the covering material from plants which are frozen simply because the sun may be shining brightly. If thus exposed, frozen plants will either be killed or badly damaged. The sun's rays would scorch up the frozen foliage. When plants are in this condition keep on the coverings; do not permit light—especially sunlight—and air to reach them until the frost has entirely gone. It would be safer to leave on the mats or straw for three days after the outside thaw is complete, as the gradual thaw under protecting material is slow.

ROCKERIES, NEW AND OLD.—In open, dry weather new rockeries may be made and old ones renovated. There are many corners in town gardens in which a new rockery would look well; it would make an ideal home for some hardy alpine plants and Ferns. Too often these town rockeries are simply a formal heap of stones, with very little soil for the plants to grow in. There are borders which rarely come under the influence of the sunshine; but that is not a sufficient reason for leaving them in an untidy condition throughout the year. They are suitable for rockery plants, and these, grown on a neatly-constructed rockery, look charming. Procure a quantity of ordinary garden soil to form a base in cases where the rockwork is to be built to a height of more than 3 feet. The soil of low rockeries should be of good quality throughout; if of higher formations the top 18 inches must be of the best. Do not make a new rockery too conical in shape. Commence to build on a good broad base and thus secure ample room for the stones and soil necessary. Place each stone in as natural a manner as possible and so that it will collect or arrest the rain water, thus causing it to permeate the soil around the roots of the plants, and not conduct

4.—AN EXCELLENT EXAMPLE OF THE "EXTENSION" METHOD OF TRAINING A GRAPE VINE. TWO RODS ARE CARRIED THE WHOLE LENGTH OF THE VINERY AND THE LATERAL GROWTHS TRAINED IN AN UPWARD DIRECTION.

it to the ground level and prevent it reaching the roots. Old rockeries require renovating from time to time; they get covered with leaves of trees, and weeds become established in them with suprising rapidity, so that owners should very closely examine all old rockeries, cleaning the soil and replenishing it where it has crumbled away.

ALPINE PLANTS IN POTS AND BORDERS.—Many owners of town gardens like to keep a collection of these plants in pots and in borders specially constructed for them. If a few basal leaves decay and are left on the plants, the latter may be lost entirely; remove such leaves and also any worm-casts around those in the borders. Furthermore, the general interest in such collections of plants is enhanced when all are neatly and correctly labelled. Partially-decayed labels should be discarded and new ones substituted while there is time to deal with such matters. Later on gardeners will find many other things requiring attention, and if the names of some favourite plants are lost there will be much disappointment. Every name should be quite distinct on the label at the present time, otherwise by the end of the summer it will be impossible to read it.

TURNING GRAVEL PATHS.—The surface of the gravel paths becomes uneven in time and very unpleasant to walk on; but it is not always necessary to buy new gravel to repair them where there is a sufficient depth of it to allow of turning. Use a strong garden fork for this purpose, burying the largest stones at the bottom, and, finally, thoroughly roll down the path again, repeating this work when rain falls occasionally.

AVON.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUIT GARDEN.

MUSCAT VINES, if not already put in order for starting in the middle of February, should be attended to at once. The glass and woodwork of the house must be thoroughly cleansed and the Vines dressed with a mixture of Gishurst Compound. See that the borders are thoroughly moist. If water is needed, let it be slightly warmed, and remove a little of the surface soil; top-dress with good loam, bone-meal, &c.

Pot Vines.—Where these are grown for an early crop, the bunches, as soon as they have set and the berries have attained the size of peas, ought to be thinned, removing carefully the tiny seedless berries and those not required. If the bunches are compact and thickly set, thin more freely than if they are loosely formed. Nourish the roots well, and do not allow the rods to carry more bunches than can be finished satisfactorily.

New Vines.—Intending planters of Vines should lose no time in preparing the borders so that the soil may settle somewhat before planting. Attend well to the drainage, and let the soil be the best loam of medium texture. Add suitable materials with the soil, such as bones, wood-ashes, lime rubble, &c., so that good Grapes may be produced.

Peach Houses.—All late Peach trees should now be put in order for starting later on, and before the buds get too forward, otherwise many may get damaged when the work is being done. If desired, young trees of suitable varieties should be obtained and grown on in the open for a year or two, and then lifted and taken under glass in the place of old worn-out or unsuitable varieties. Quite large, healthy trees will usually produce a fair crop the first year after planting. Good varieties are Dymond, Stirling Castle, Crimson Galande, the Nectarine Peach, Barrington and Violette Hâtive; Nectarines Pineapple, Humboldt, Lord Napier and Elruge.

THE PLANT HOUSES.

Chinese Primulas.—Be careful not to overwater these. The pots are well filled with roots, and a little weak manure water or Clay's Fertilizer may be given with advantage.

STOVE.

Stove plants will now require examination, for many of them are starting into growth, and before they get too advanced the roots need to be thoroughly examined. If more root room is necessary, they should be repotted, first slightly reducing the roots. In cases where the roots have been kept rather dry the balls should be thoroughly soaked in water. All the wood and glass work will be the better for a good wash, and the plants should be well sponged if necessary. Allamandas, Stephanotis, Clerodendrons, &c., invariably thrive satisfactorily in a mixture of sandy loam, peat, leaf-mould and sand. All newly-potted plants require very careful attention with regard to watering, but as the roots take to the new soil more water will be required. Many of the creepers and climbers now need attention. Any pruning ought to be done, and to encourage new growth syringing overhead with tepid water should be done on all favourable occasions. Special plants for a certain object may, if desired, be kept back by keeping the roots rather dry and the plants in a cooler temperature for the present.

H. MARKHAM.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

SEED SOWING UNDER GLASS.

CUCUMBERS AND MELONS.—If not already done, seeds of each of these may now be sown where a minimum temperature of from 60° to 65° can be easily maintained. Should doubt exist upon this point, sowing had better be deferred for a time, or until greater length of daylight and the possible increase of solar heat assists that provided by artificial means. The Telegraph type of Cucumber is well adapted for early work, being moderate in growth, the fruits shapely in form and arriving quickly at maturity. Varieties of Melons are numerous, and past experience will enable growers in general to make a good selection. Hero of Lockinge, Earl's Favourite and Blenheim Orange, white, green and scarlet fleshed respectively, seldom fail to give satisfaction. Small pots drained with leaves or moss, and three parts filled with a compost of turfy loam and leaf-mould, the seeds being simply pressed beneath the surface, will answer well. The compost being at the time fairly moist, water is best withheld until growth is visible, and even then applied very sparingly and always at the same temperature, or, by preference, rather higher than that of the house.

Tomatoes.—If the autumn-sown plants are progressing well, they will provide a supply of fruits until midsummer; but, if otherwise, seeds of a small-fruiting variety should be sown in brisk heat and the seedlings pushed on to make up for lost time. For general use the Perfection type, which apparently includes a number of varietal names with very slight distinctive features, is moderate in size, smooth in outline and rich in colour and flavour. Sown in light soil, in a pan or box, the seedlings are soon visible, and from this time until the flower trusses appear care is needed that they do not become drawn, through remaining too long in strong heat, or by occupying a position far removed from the glass.

Seedlings for Bedding.—Begonias, Petunias and many other very similar subjects used for bedding out and conservatory decoration during the current year may now be sown. In the case of the genera named, as well as some others, the seeds are of dust-like fineness, hence the seed-bed must be very carefully prepared and a position selected for germination where drying influences are absent. Use a compost of finely-sifted peat, leaf-mould and sand, previously heated by some convenient means if thought to contain small worms or grubs, firmly pressed to a depth of 3 inches into well-drained receptacles, these in turn being nearly submerged in water to ensure the soil being properly moistened, but not wet, when sowing takes place. Upon a level surface sprinkle the seed and gently press it in with some smooth implement to which it is not likely to adhere. Any covering with soil is best dispensed with. Plunged in a bed of Cocoanut fibre the receptacles may be covered with a sheet of glass and kept dark until germination of the seed takes place. Until this time applied moisture may be unnecessary, but dryness must be carefully guarded against, a gentle spray by aid of the syringe given in time being much better than a heavier application when the soil has become parched. A good rule to follow in sowing is to cover the seed according to its size individually, and while some kinds are best spread on the surface, others require covering with soil in accordance thereto, until in respect to the largest, as Cannas and Ricinus, a depth of 1 inch is none too much.

HARDY FRUITS.

Gooseberries.—The pruning of these is often deferred to circumvent to some extent the damage likely to accrue owing to the buds being attacked by birds. Whether this course is best is questionable, but if the bushes were not pruned and dressed in autumn the work should now be done. The former system of shortening all the leading branches and all side growths to a few buds is now regarded as obsolete; the more profitable method of thinning the previous season's growths to the requisite number to form a handsome and fruitful tree, merely reducing any in length that unduly extend, gives more and finer fruits, which, owing to the openness and consequent ease of gathering, is to be recommended. Birds are generally most troublesome when the buds commence to swell, hence some preparation distasteful to them should be held in readiness for application. A mixture of fresh slaked lime, to which soft soap is added to make it more adhesive, and sufficient water to render its passage through the sprayer or syringe possible, applied to the bushes on a drying day, is lasting in its effects, but a repetition may possibly be needed.

Red and White Currants require very similar treatment; all side shoots not required for furnishing the trees should be reduced to spurs, while a few of those springing direct from the base may be reserved to replace any worn-out branches, either now or next season.

Black Currants, according to the age and size of the plants, should have a good proportion of the older growths cut away to make room for those younger. Spur pruning is not practised, the thinning out process being sufficient.

VEGETABLE GARDEN.

Onions and Leeks.—If these are wanted for exhibition, or other particular purposes in early autumn, seeds should now be sown in warmth. Boxes nearly filled with good friable soil, or, for a moderate quantity of plants, pots answer equally well. Upon a firm surface sow the seeds thinly, and cover with soil to the depth of half an inch; place upon a gentle hot-bed if possible, and keep dark until germination takes place; afterwards, gradually inure to light and keep the plants near the glass in a greenhouse. Avoid a forcing temperature at all times.

JAMES DAY.
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ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends make* THE GARDEN *helpful to all readers who desire istance, no matter what the branch of gardening may and with that object will make a special feature of the nswers to Correspondents" column. All communica- ns should be clearly and concisely written on one side the paper only, and addressed to the* EDITOR *of* THE RDEN, *20, Tavistock Street, Covent Garden, London, C. Letters on business should be sent to the* PUBLISHER. *e name and address of the sender are required in dition to any designation he may desire to be used in the per. When more than one query is sent, each should on a separate piece of paper.*

FLOWER GARDEN.

Sweet Peas eaten off at the oots (*G. R. R.*).—Gas-lime is, no doubt, a ry effective insecticide, but, unfortunately, e soil which has been dressed with it cannot pport plant life again for some months if the essing is heavy enough to kill insects and ner pests. Vaporite, Apterite and Kilogrub e three compounds which are said to kill all ound pests which come within their influence. ey should be worked into the soil and do not ure plants. They emit fumes when in contact th the soil which are poisonous to animal life. is too late to use gas-lime now, but if you can ord to let the soil lie idle for six months use m half a pound to 1lb. per square yard.—S. S.

Flowers for front garden (*G. C.*).—e rough sketch of your front garden is very ll, but you give us no figures as to its size. u sketch beds, but show no breadths or gths, hence it is impossible to say what scription of plants would suit your case. Why your grass plot into such sharp, acute angles corners, where mowing the grass is impossible? u had far better make your centre bed square correspond with the square of the whole, or e make your grass correspond with your nd centre bed by making the border round older, cutting off the grass corners and thus ing more room for flowers. You do not w any footpath entrance to the grass plot m either the house-front or side path. That st be provided for. Will you please first end your plan; then give us the exact dimen- ns of your bed and breadths of the surrounding der, also the dimensions of the whole front den? When we have that we can better ise you. Do you want hardy plants to ain winter and summer?

Stocking herbaceous borders (*Vias*).—The best way to stock a herbaceous der would be to plant it forthwith with suit- e subjects. In a case of this kind it would be the best plan to get the advice of a specialist, what may be done depends not a little upon r own desires and particularly on the pro- le cost. In borders of the size and width name there is ample room for effect, and y fine masses of things producing a long cession of flowers might be introduced. example, Lilies of many sorts, Kniphofias, nies, Campanulas, Globe Flowers, Irises, lardias, Pyrethrums, Michaelmas Daisies ly and late), Phloxes in variety, with rfer plants nearer the margin, would alone vide flowers for many weeks. In addition, odils, Carnations, masses of Tufted Pansies, s and the like would greatly enhance the lay. Such a stretch of border is worthy of ful planting, and may be done at any time ween now and March so far as the non- ous things are concerned. For these latter work should be taken in hand at once, or on as a definite idea can be fixed as to the arrangement. One of the mossy Saxifrages would make a good edging.

Top-dressing bulbs with old manure (*Cotoneaster*).—You have not only done an advisable thing, but what was very necessary, in top-dressing the bulbs with well-decayed cow-manure. When bulbs are planted in clumps in herbaceous borders, where they have to fight with roots of other plants, or even in beds by themselves, they need fresh food if they are to be long in the same position, otherwise they become weakened. There is no better way of giving this help than by an annual top-dressing of old manure. Cow-manure is apt to be lumpy, so care must be taken to have no large lumps when it is put on, or if there are any now in what is already on, they must be removed directly the leaves show through the soil, or they will be bent and the whole plant more or less disfigured.

Crocus and birds (*H. W. B.*).—There is nothing more effective than black thread, and a few strands passed over the beds usually suffice. All that is requisite are a few sticks or inconspicuous twigs stuck in here and there, the thread first tied on to one and then passed round each twig, and occasionally crossed and recrossed over the beds. The thread should be placed so as to be above the level of the flower-buds when these are fully grown, so that the wings of the birds come in contact with the thread. A few shocks of this kind will, as a rule, prove effective.

Plants for west border (*A. M. Whalley*).—You will find that a choice selection of Flag Irises, Lilies, Asters, Gaillardias, Pæonies, Spanish and English Irises, Campanulas, Tree and perennial Lupines, Phloxes, Trollius and similar plants will do quite well. Unfortunately, you say nothing as to the size of the border, and any selection we might give you in more definite form might prove of little use. We are presuming, too, that you require herbaceous perennial plants and not annuals or biennials. If you will write again, giving all the particulars, we will give you a suitable list of plants. The Polygonum is a perfectly good hardy climbing plant and most fascinating when in bloom. It is seen to the best advantage when allowed to ramble carelessly in a dying Araucaria or Cypress, but may be trained to a fairly high trellis or allowed to roam at will over a pergola. The fruit trees, if still in health, might be headed back for regrafting in March or April next, but just what is best could only be decided on the spot with a knowledge of the trees and other things. In all probability it would be best to grub them out and plant young specimens in their stead. If for any reason you cannot remove the trees, your next best course will be to head them back for grafting.

TREES AND SHRUBS.

Shrubs for beds (*G. W.*).—In the narrow beds close to the house and immediately in front of the windows no mention is made of the height the plants may attain without interfering with the view from the windows; but if a height of from 4 feet to 5 feet is not too much, a very pretty and long-standing effect may be obtained by planting one bed with Cotoneaster rotundifolia and the other with Cytisus nigricans. If desired, both beds may be planted with the same subjects arranged alternately. Plants equally desirable, but reaching only the height of 2 feet or so, are Cotoneaster horizontalis, Hypericum moserianum and Potentilla fruticosa. In the first named of these two arrangements, Cotoneaster rotundifolia has pretty whitish flowers in spring and bright scarlet berries in autumn, while Cytisus nigricans bears its golden blossoms throughout July and August. In the second arrangement, Cotoneaster horizontalis has in spring pretty pink flowers, then in summer the regular Fern-like growth is very pleasing, while in autumn the two most striking features are the brightly-coloured berries and the brilliant tints of the decaying leaves. Even in winter the fish-bone-like arrangement of the naked shoots are peculiarly attractive. The Hypericum, one of the best of its race, has golden flowers in autumn, and much the same may be said of Potentilla fruticosa. The bed 5 feet square is a very suitable place for a specimen Laurustinus, and in the triangular beds close by may be grown a collection of the forms of Philadelphus Lemoinei. They may either be grouped by themselves, or, if preferred, can be alternated with Tamarix Pallassii rosea, whose pretty pink plumes form such a delightful summer feature. If not used elsewhere, a collection of the dwarfer Cotoneasters, such as C. congesta, C. horizontalis, C. microphylla, C. rupestris and C. thymifolia would form a pleasing item in the 2½ feet wide border, or it might be planted entirely with the different members of the Broom family. It should be borne in mind that both the greater and lesser Periwinkles and their varieties are among the finest subjects for planting in spots such as that named by you.

Treatment of Choisya ternata (*Lancaster*).—Your plant of Choisya ternata ought to bloom without pruning. You do not say whether it is growing in very rich soil or in shade. The best results are obtained when the plant is growing in moderately poor soil and in a sunny position. In rich soil and shade rank growth is formed, which does not flower well. Try the plant another year. You may get flowers this spring or early summer. It is a shrub that requires very little pruning, except when the branches become straggling. In such a case a hard cutting back should be given. Basic slag may be used on a lawn at the rate of a quarter of a pound to the square yard. It is a slow-acting manure, and you will find better results the second year than the first. Use the manure on a calm day.

Treatment of an old Winter Jasmine (*A. W. Lofthouse*).—You can cut your yellow Jasmine hard back to the main branches as soon as the flowers are over. The branches may then be spread out over your wall or fence, and young shoots will break away evenly from them. Usually in such cases a lot of young wood starts from the base.

THE GREENHOUSE.

Treatment of Allamandas (*W. H. C.*).—Allamandas will, without injury, lose many of their leaves in winter, especially if they have been kept somewhat cooler and drier at the roots than usual, as is often done in order to rest them. Being vigorous growers they need a fairly good soil, such as three parts turfy loam to one part each of peat or leaf-mould, well-decayed cow-manure and sand. They should be pruned now or in February. In doing this the stout shoots must be cut back to within two or three plump eyes and any weak and exhausted wood cut out.

Propagating Stephanotis (*W. H. C.*).—Stephanotis floribunda is readily propagated by cuttings of the young growing shoots taken during the spring months. The best cuttings are formed of short-jointed side shoots of medium vigour rather than the very strong ones. A length of 3 inches to 4 inches is very suitable for the cuttings, each being separated with a sharp knife immediately below a joint, and, the bottom pair of leaves being removed, it is then ready for insertion. The cuttings may be either inserted singly into small pots or four cuttings around the side of a pot 4 inches in diameter. The pots must be quite clean, effectually drained, and filled with a mixture of equal parts of loam, peat and silver sand thoroughly incorporated together and pressed down moderately firm. A good watering having been given, the pots containing the cuttings must be placed in a close propagating case in the stove, and if they can be plunged in a bottom-heat of 75° to 80° so much the better. This bottom-heat, although it assists the action of rooting, is not absolutely necessary, as in an ordinary stove temperature, provided they are placed in a close case, these cuttings will root without difficulty, although more slowly than when bottom-heat can be applied. When well rooted, the cuttings must be potted singly into small pots. Though the soil as above recommended is most suitable for cuttings, a different compost is best for established plants. A good mixture may be formed of two parts turfy loam to one part of peat or leaf-mould, and about half a part of sand. This compost must not be sifted,

but pulled to pieces with the hands in order to leave as much fibre in it as possible.

Treatment of Ixora floribunda (*W. H. C.*).—Ixora floribunda and, indeed, nearly all the different species and varieties flower during the latter part of the summer and in the early autumn months. They are propagated in the spring from cuttings formed of the half-ripened shoots, selecting for choice those of medium vigour rather than the very weak or very strong ones. A mixture of equal parts of peat and silver sand is very suitable for the cuttings, which should be inserted firmly into well-drained pots, putting three or four cuttings around the edge of a pot 4 inches in diameter. A close propagating case in the stove where there is a gentle bottom-heat is the best place for the cuttings, which under such conditions soon root. For established plants, good yellow loam, one part, to two parts of peat and one of silver sand will suit Ixoras well. Ixoras may be potted as soon as the flowers are over, or in the months of February and March. They need the treatment given to the general run of stove plants, being greatly benefited by a liberal use of the syringe in the summer. Being strictly evergreen, Ixoras must not be kept dry at the roots at any time.

Cattleyas spotted (*C. W.*).—The spots on the Cattleyas are in all probability caused by an excess of atmospheric moisture, combined with a lowness of temperature, which last may be only temporary. Very likely the punctures caused by thrips may have, in the first instance, formed the seat of decay, and afterwards the decayed portions were attacked by a fungoid growth.

Cultivating the Cardamon (*G. E. S.*).—The culture of the Cardamon (Amomum Cardamomum) is, as in the case of many of its allies, by no means difficult. It belongs to the extensive Ginger Wort family, and has therefore as its immediate allies the Ginger itself, the Hedychiums, the Alpinias and others. It is a native of the Tropics, and consequently needs a warm house, at least during its earlier stages. The seeds should be sown in well-drained pots or pans in a mixture of loam, leaf-mould and sand, and if placed in a stove temperature they will soon germinate. Potted off in the same compost the young plants will make quick progress, and can be shifted into larger pots when necessary. Though they grow more freely in the temperature of a stove or intermediate house, they may, when established, be kept in good health in an ordinary greenhouse with a minimum winter temperature of 45°.

Information about a Clerodendron (*W. H. C.*).—In all probability the Clerodendron referred to by you is C. Balfouri, although you do not even give us the colour of its flowers as a guide to go by. Some cultivators prefer to give it a rest during the winter, but it is too late now to commence that treatment. It is quite natural for many of the leaves to turn brown at this season. Pruning may be done in the first half of February. The vigorous shoots may be shortened back to good eyes, and any weak and exhausted ones cut out. Use soil as recommended for Stephanotis. Dieffenbachias can be propagated after the manner of Dracænas—that is to say, the top may be taken off and struck as a cutting. It will root without difficulty if put into a pot of sandy soil and placed in a close propagating case. Next, the bare stem (if there is one) may be laid in Cocoanut refuse in a gentle heat, and young plants will soon be pushed up therefrom. Some prefer to cut the stem up into eyes or joints, while others leave it entire. In the case of dwarf plants—that is to say, those in which but a short stem is left after the top has been removed—the better way is to leave this short stem undisturbed, for a young shoot will soon be pushed out from the upper portion, and as soon as that is large enough it may be taken off and treated as a separate cutting. The month of February is the best time to propagate Dieffenbachias.

FRUIT GARDEN.

Apple and other fruit trees in pots (*H.*).—Excellent success may be obtained by growing Apple trees in pots. They may be plunged in the soil or placed on a bed of ashes or gravel on the surface. The work of watering during summer, of course, is considerable and exacting, as, if they are allowed to suffer from dryness at the roots, failure will follow. They will not succeed satisfactorily if ordinary garden soil is used, because the quantity of soil available to sustain growth and fertility being so small, it must be of the most nourishing description, which ordinary garden soil is not. The following mixture should be made up in which to pot them: To one barrow-load of maiden loam from a pasture field (without any grass), cut in turves of 4 inches or 5 inches deep, add two pecks of dry rotten manure, a quart of soot and three quarts of bone-meal, mixing all well together before potting. The turf should be broken with the hands into pieces the size of a hen's egg. If you do not care for the trouble of finding and mixing the soil, the trees may be bought of any good nurseryman ready potted.

Burning sulphur to kill red spider in a Peach house (*One in Doubt*).—We know of no fruit tree so susceptible to injury to its flower-buds as the Peach, and therefore we do not recommend its being subjected to the hot fumes of sulphur. A better way will be to thoroughly wash the glass, trellis and walls with a strong solution of soft soap, afterwards whitewashing the walls, also forking up the surface soil of the border to the depth of 2 inches, wheeling it away and burying it deeply in the garden, replacing it with 3 inches or 4 inches of maiden loam and adding a gallon of bone-meal to every barrow-load of loam. Afterwards paint the trees with the following mixture: Half a pint of flowers of sulphur, the same of quicklime. Dissolve in one gallon of water, adding soft clay to bring the mixture to a consistency of paint.

Barren Fig tree (*E. D. H.*).—Before a fruit tree of any kind can bear satisfactory crops it is absolutely necessary that the branches should be freely exposed to sunshine, light and air. Seeing that your tree has not been pruned for years, it must be a tangle of dense growth in summer and quite impervious to the influences above described; therefore the first thing to do will be to prune your tree rather severely. At least one-half of the branches formed last summer (they are easily distinguishable) will have to be cut away, cutting the weakest shoots first. Then dig a trench 2 feet deep and 2 feet wide at a distance of 5½ feet from the stem of the tree, cutting away with a knife all roots seen in the operation of digging out the trench. The soil taken from the trench must be removed and replaced by turfy loam cut from pasture-land or from the roadside. To this must be added two quarts of bone-dust to every barrow-load of soil. New roots will soon be formed, and these will, in a year or two, enable the tree to bear and finish a good crop of Figs. The new soil should be rammed hard into the trench. Some spurious varieties of Figs will not bear fruit even under the most favourable conditions. We hope yours does not come under this category.

Burning useless grass in orchard (*M. M.*).—This would be a good plan to get rid of the useless grass, and possibly the larvæ of many insect pests; but the fire must be under perfect control, with the means of putting it out at hand, and never be left by the man in charge, or it might, of course, inflict fatal damage to the fruit trees.

Apple Ribston Pippin with a dead limb (*A. K.*).—The means suggested by you to fill the hole in one of the limbs of your Ribston Pippin will prevent its further decay by protecting the wound from the weather and insect pests. We should wash the wound out well with a strong solution of soft soap, which will clear it of any filth which may remain, drying the wound with rags before applying the cement.

Planting fruit trees (*Ignoramus*).—If you can make your fruit quarter fully 20 feet from the Fir trees, do so, as these tree-roots run wide and would soon find their way into your well-prepared ground. Even at that distance it may be wise every two years to open a trench 2 feet wide and as deep just beside your fruit quarter and cut off all roots, as by so doing the Fir tree-roots could not get any hold of the fruit ground. There is no need to fix the wire netting all round the sides of your fruit enclosure until the trees and bushes are planted; but when that is done it will be well to have the sides enclosed with wire and the top with nets to prevent birds from preying on the fruit-buds. When these break into leaf and bloom in the spring the nets may be taken off until the fruit begins to ripen, then they will be needed until the fruit is all gathered. Birds, however, seldom trouble fruit-buds until hard weather drives them to find food in that way. Plant your trees and bushes the moment the ground is ready if the weather is favourable. When the planting is complete—and in all cases plant rather shallow than deep—place some long stable manure under the trees and bushes; this will protect the roots from severe frosts. Raspberry canes must be sacrificed the first year by cutting them nearly close to the ground in February. This will encourage new suckers to form and establish the plants for future years. Tree leaves alone make excellent leaf-soil, but you will facilitate their decay if you turn them two or three times during the winter, moistening them with house slops and adding a dusting of soot. They need a full year to thoroughly decay. Certainly do what you suggest with your lawn, but pull out all the coarse grass you can first, then manure and top-dress with the soil.

Pears in pots for a cold lean-to house (*X. Y. Z.*).—Such a house should hold a dozen trees in pots without unduly crowding the Peach tree on the back wall. The varieties we recommend are one each of Williams's Bon Chrétien, Triomphe de Vienne, Fondante d'Automne, Marie Louise, Emile d'Heyst, Beurré de Jonghe, Charles Ernest, Easter Beurré, Winter Nelis and President Barabe, and two of Doyenné du Comice.

Daisies along edge of Pear tree border (*C. M. C.*).—We advise that a small ridge of soil, 3 inches high and 4 inches wide, be added to the border on the line where it is intended to plant the Daisies, forking and mixing it with the border soil to the depth of about 4 inches. This added soil will sustain the growth of the Daisies (especially if it has a little well-rotted manure in it) without doing any harm to the Pear trees.

Paving for fruit trees (*F. C. S.*).—Where the subsoil is of stiff clay, and probably somewhat wet or sour, it is imperative that some sort of hard or almost impervious base or floor to each hole where a tree is to be planted should be provided. But we prefer such floor to consist of porous matter rather than of solid impervious material, such as slates, stone slabs or solid concrete. We think a floor of broken brick rubble, some 3 inches or 4 inches thick and trodden or rammed fairly firm, is best. Such a floor, while presenting a formidable obstacle to the passage of vertical roots, offers no encouragement to them, yet at the same time allows moisture from the lower strata to be drawn up to the tree-roots by capillary attraction in hot, parching weather. On solid or impervious floors the soil and roots are apt to become very dry. All trees planted three years should, if possible, be lifted, have all vertical or coarse roots pruned hard back, then be replanted shallow. Root trouble seldom follows then.

Preparing ground for fruit trees (*Learner*). We do not approve of the work of your man in trenching your old pasture, burying down the top spit of soil and bringing the bottom to the surface. For fruit trees and bushes of all things it is important the best soil should be on top to encourage root-action near the surface. The course should have been, first, to pare off the grass and surface from a space at one end of the plot, 2 feet wide and 3 inches deep, and to place it on one side; then to throw out 12 inches in depth of the next soil and put that also on one side; then to have had the bottom well forked up 10 inches deep and to have left it there. From off the next trench of 2 feet wide pare off the turf and surface soil 3 inches deep and throw that into the bottom of the trench with the grass downwards; then on that the next 12 inches of soil, the bottom being forked up as before. By doing this all over the plot you would have kept the best soil near the surface. The sample of soil sent shows the need of much exposure to the air to sweeten it, and, of course, the winter will do something beneficial to it in that way. As it is, you must make the best of it. Get your trees and bushes planted at once if possible, especially if the weather keeps open. Put no manure close to the roots, but a mulch of manure over the soil to wash into the roots will do good. If you have wood ashes or old mortar refuse and any fine soil, use a little of each close to the roots when planting. As you plant sprinkle a little of the basic slag in with the soil about each tree or bush, half a pound to each tree, less to a bush. Use the farmyard manure for mulching as advised. It is best to allow turf as loam, manure and leaves all to be stacked separately in heaps. Turf needs no turning, but leaves and manure will decay all the sooner if occasionally turned and at the same time well damped with water or house sewage. Leaves need a year to become soil; turf, six months.

MISCELLANEOUS.

Pruning a Quick hedge (*A. B.*).—You had better trim the long ends of your hedge of Quick now; then let the plants make a season's growth and cut them hard back in the spring of 1910. By this means you will obtain a much stronger hedge than would be possible were you simply to trim the hedge lightly over. By letting them grow this year practically unchecked, the plants will get well established and vigorous. This hard cutting down will result in a dense, thick bottom, which is so important a factor in a hedge. A top-dressing of manure will assist growth after the cutting down next spring.

Size of an allotment (*P. C. S.*).—Assuming that by the term allotment you mean a plot of ground such as is commonly termed, the dimensions usually range from ten rods to twenty rods, some being of fifteen rods area. The dimensions of the plots are varied to suit the capacities and time of each holder, but, as a rule, on any large group the rent is per rod rather than per plot, hence small or large plots pay relatively the same rent. This varies from as low as 4d. up to 1s. per rod, all depending on quality of soil, on the position of the plot, whether near at hand or remote, and on the owner. Public bodies charge varying rates according to the primary rent they may have to pay and certain costs of management, which the rent has to cover. If you have not previously worked an allotment, you would be wise to start on one that is only ten rods in area. Then after two or three years' experience you may be able to manage a larger one in a profitable way.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

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SOME POTATOES AND PEAS FOR 1909.

My note more concerns the best of the newer introductions and those which have proved valuable additions to the older list. As regards Potatoes there are fewer novelties, if I may so describe them, but the later list contains some most valuable introductions. Doubtless Sutton's White City will command most attention. Named after the great exhibition of 1908, this Potato is very distinct, and when the raisers state that it is superior to the well-known Up-to-Date, its excellence may be considered superior to many others, as Up-to-Date is one of the most profitable varieties grown. In shape White City is perfect, a kidney with few eyes, and these set in very small cavities. But most growers will ask: What about flavour? In this respect it is an ideal Potato. It is also an enormous cropper. It reminds me very much of Magnum Bonum, which Messrs. Sutton sent out over thirty years ago, and a Potato that proved one of the most profitable ever introduced.

Peas always command attention, and of late years few vegetables have made greater strides, as in May and June we now have produce equal to the best July Marrowfats, whereas formerly the small white Peas, which were flavourless and aged so quickly, were the only sorts available. The year 1907 was remarkable for several sterling new introductions, which trials since have proved most valuable additions. In the first earlies is Sutton's Pioneer, a dwarf Pea 20 inches in height, remarkably early and of splendid quality. Pioneer can be sown very early, matures quickly, has a fine pod and for its earliness is unusually robust. It is also a valuable variety for glass or pot culture, the pods being large and plentiful. Another very fine introduction is World's Record, a large, early-podding Marrowfat growing 3 feet high and a wonderful cropper; grown for first supplies it is remarkably early, having robust haulm and Peas of delicious flavour. King Edward, also one of the Reading newer varieties, is a remarkable introduction for June or July gathering, and especially valuable to the amateur on account of its dwarfness and fine cropping qualities. It grows from 2 feet to 3 feet high and has a large, thick pod. Sown in March it is fit for table at the end of June, and in size it is not unlike Duke of Albany.

A new Pea which I think will prove a great favourite is Laxtonian; this is very dwarf and an ideal amateur's Pea for those who do not have much room at their disposal. It is even earlier than the well-known Gradus, and was introduced by Messrs. Laxton of Bedford. For many years Messrs. Veitch of Chelsea relied upon the excellent Chelsea Gem for the first crop, and it had few equals; it is now second to their splendid Langley Gem, the last-named having a much larger pod, and is of more robust growth and of unquestionable quality. The pod contains eight to ten Peas and the height is the same as the older variety. It is excellent for forcing under glass and for the first crop in the open. Those who still grow Peas of the American Wonder type would do well to note Carter's new Advancement, a cross between Daisy and American Wonder, and certainly a great advance in every way. It is a good Pea as regards quality, very dwarf, enormously productive and one of the hardiest Peas grown. I advise it for heavy soils early in the year; it is a most profitable amateur's variety, as it takes up so little room and gives a great return.

Of other new Peas, Carter's International is very distinct. It is the result of crossing Early Morn and Duke of Albany, and has large, curved pods with splendid Peas, is a marvellous cropper and greatly superior to Duke of Albany, the haulm growing from 5 feet to 6 feet high and remarkable for its earliness. Grown as a main season variety it matures in a short time and is a most reliable variety for a private garden, as the yield is so great and the pods well filled with large Peas. I have counted a dozen in one pod. On trial at the Royal Horticultural Society's Gardens this Pea obtained an award of merit in 1908. Of other distinct new Peas of Messrs. Carter's, Harvestman also received an award of merit in 1908; this is a grand main crop and a 5-feet variety. Snowdrop also received an award of merit in 1908 in a very large trial. This, a cross between Early Morn and Express, may be termed an early Ne Plus Ultra; it is a remarkable variety for its perfect flavour, crop and earliness.

G. Wythes.

THE GARDENERS' ROYAL BENEVOLENT INSTITUTION

While the resolution of amendment to Rule 3 of the institution relating to the State Old Age Pensions, published on all the voting papers sent to subscribers for the recent ballot, was unanimously adopted at the annual meeting of the subscribers, it by no means follows that, because thus agreed to by some thirty subscribers, there may not be in the whole body of members many who may disagree with or be at least unwilling to accept the decision of the meeting without desiring further discussion. While the Benevolent Fund is, as its name implies, a distinctly charitable institution, many of the gardener subscribers have regarded it largely as a benefit fund, seeing that they have been invited to become

subscribers of one guinea yearly, because by so doing their chances of getting elected as pensioners have thus been materially aided. When, therefore, it is proposed to compel all elected pensioners henceforth to make application for the State Old Age Pension of 5s. weekly if seventy years of age or upwards, so that the quarterly grant or allowance made from the fund may be proportionately reduced, there is a possibility that many old gardeners, long subscribers to the fund, may feel much aggrieved, inasmuch as they may look to the benevolent pension to save them from the necessity of becoming State pensioners. Of course, now no humiliation attaches to such position, seeing that the State pensions its old citizens because of long and arduous life and labour in the service of the country. All the same, there may be some considerable objection or diffidence on the part of many old subscribers to make the application for the State pension; and if so, then the decision of the recent annual meeting may cause some friction or heartburning. It is, however, very pleasant to learn that the committee has no intention to make this amended rule in any way retrospective; that is to say, no existing pensioner will be affected. Even so far as it may apply to future pensioners, we are assured that the committee proposes to use its force tentatively, and by no means imperatively. Cases may occur in which enforcing it would be undesirable; in others its application may be a matter of justice. But it must be clearly understood that this amendment to Rule 3 has not been brought forward in a parsimonious spirit. It is made imperative that in all cases the pensioner shall not suffer pecuniarily, and that is important. But, after all, it is doubtful whether, if applied at once to the newly-elected pensioners, any very material pecuniary gain would result this year. Of the twenty-one candidates put on the fund the other day, ten only are over seventy years of age, eleven being under that age; hence any saving of pension effected by the candidates securing the State pension of 5s. weekly would be small at first, and probably on the whole year might not exceed a few pounds. Now the primary object in proposing this amendment to Rule 3 was that, if candidates elected on the Benevolent Fund secured the Old Age Pension, thus relieving the Benevolent Fund from the annual charge of making the full grants of £20 or £16, there would be saved sums which might enable more pensioners to be put on the fund each year than finances now admit. This is a most desirable and truly charitable aim. The Gardeners' Royal Benevolent Institution is indeed a noble charity, and merits the most enthusiastic support. When no less than seventy-three persons, incapacitated by old age or sickness, ask for the fund's assistance—and the list of ailments is indeed a sad and a pathetic one—who can question its necessity? It indeed merits universal support.

PRIZES FOR READERS. FEBRUARY.

THE BEST WAYS OF USING A COLD FRAME.

A First Prize of FOUR GUINEAS,
A Second Prize of TWO GUINEAS,
A Third Prize of ONE GUINEA,
And a Fourth Prize of HALF-A-GUINEA
are offered for the best essays on the above subject.

There are many ways of using a cold frame, such as raising seedlings and afterwards for Cucumbers, &c. This should prove a most useful competition.

The notes (restricted to 1,500 words) must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, W.C." The essays must reach this office not later than Saturday, February 27. Both amateur and professional gardeners may compete, but it is hoped that those who contribute regularly to the pages of THE GARDEN will not do so. The name and address of the competitor must be written upon the MS., and not upon a separate piece of paper. The Editor accepts no responsibility for and cannot undertake to return the MSS. of unsuccessful competitors. The Editor's decision is final.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

*** *The dates given below are those supplied by the respective Secretaries.*

February 9.—Royal Horticultural Society's Meeting. Horticultural Club Annual Meeting, 5.30 p.m.; Dinner, 6 p.m.

A Sweet Pea number.—Next week we shall publish a number largely devoted to the Sweet Pea, with a coloured plate. All the leading Sweet Pea growers have contributed and there will be many interesting illustrations.

A lecture on "Vegetables."—Mr. Beckett, the well-known gardener to Lord Aldenham, Elstree, recently gave a most instructive lecture on "Vegetables" before H.R.H. the Duchess of Albany. Mr. Beckett's knowledge of vegetables is extensive, and few have raised more useful varieties.

Winter vegetables and the past severe weather.—I never remember noticing vegetation so severely crippled after such a short spell of frost as it is during the present season, and this is not confined to any particular district. One certainly expected after such growing weather as we experienced during the late autumn that, in the event of a prolonged frost, serious consequences would follow, but certainly not to the extent now presented after only two or three nights' frost; and this not only applies to vegetables, but many of what are generally considered to be among our most hardy shrubs have been terribly crippled. Among vegetables which have come under my notice that have suffered most are Brussels Sprouts, Broccoli (especially the early varieties) and many of the Borecoles, Kales and Celery where unprotected. I have seen huge breadths of sprouting Broccoli completely destroyed both on high, dry land and in low positions on heavy, retentive soils. Among those which have proved to be most hardy are Brussels Sprouts, the various forms of Scotch Kale, Cottagers' Kale and the new Russian Kale (Chou de Russie), a variety of much merit, which was introduced by Messrs. Carter and Co. and worthily received a first-class certificate in 1907 from the Royal Horticultural Society, the only variety considered worthy of such after very extensive trial at Wisley. It is extremely effective, hardy and of delicious flavour, and I feel sure is destined to take a foremost position when better known among our winter vegetables. The true Labrador Kale has also passed through uninjured, a variety which should be grown in every garden, as, like the preceding, it is very hardy and has a distinct flavour from any other green vegetable I am acquainted with. Among Broccoli, with us Sutton's Late Queen and Veitch's Model have been the least affected. Early-planted Cabbage has been badly hit, but the plants put out later are apparently safe. Winter Spinach is looking remarkably well and will prove to be very serviceable later on.—E. BECKETT.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

How to rid a garden of field mice. In reply to a correspondent (page 26) who seeks information on this subject, I should like to say that a good cat (or cats) and a few dozen mouse-traps will gradually get rid of these pests. My garden, a large one and bounded on two sides by grassland, was, some years ago, infested with mice. I therefore became the possessor of a cat, who, I think, kills on the average two of these plagues every day. (Here I may mention that a cat does very little damage in a country garden.) I also keep about a dozen traps continually in use, and am most successful with them. Although I grow more than 100,000 Crocuses (most of them being in rough orchard grass) I now scarcely lose a single bulb. The traps, which must be set very lightly (break-back traps are the best), should be placed near plants and bulbs likely to be attacked; let them be especially seen to during the winter and spring. I agree with your correspondent that poison is objectionable.—E. TESCHEMACHER.

Tulips in grass.—Mr. Joseph Jacob, in a recent number of THE GARDEN, raises the interesting question of planting Tulips in the grass. My experience is that most kinds, although they flower splendidly the first season, subsequently produce but small blossoms, until, about five years from the time of planting, the bulbs become too small and crowded to bloom at all. The soil I have tried them in is a medium loam, which is certainly most suitable for Narcissi. In light, alluvial soils they would, perhaps, do better. A year last autumn I planted several hundred Cottage Maid Tulips in the grass, and the following spring they flowered well. I shall watch their progress with interest, and if they do well shall photograph them. As Mr. Jacob says, many of the species would doubtless prove successful. T. kaufmanniana should be tried, as I have heard of it producing blooms for many years. The above remarks must not deter amateurs from planting Tulips in permanent positions, for many May-flowering, Darwin and Parrot varieties thrive for many years without being disturbed if given rich, light soil. This, I fear, cannot be widely known, or one would oftener see irregular clumps of these precious bulbs decking hardy flower borders during May or forming patches of brilliant colour in the wild garden.—E. T.

—— Mr. Jacob has raised a question which I am sure many would like to see discussed further in the pages of THE GARDEN. Tulips would be very fine subjects for planting in the grass if they would only continue to bloom well under such conditions. My rather limited experience of them here, on a good loamy soil over clay, I am sorry to say has been the same as Mr. Jacob's. I commenced by planting a number of bulbs of a double yellow variety, which, on account of its lazy habit of resting its head on the ground, was disappointing in garden soil. This variety seemed to be doing all right the first season and the flowers looked well lying among the grass, but they produced fewer blooms each year and will, I am afraid, soon fail altogether. My next trial was with a single yellow variety, Golden Crown, which had increased very rapidly and flowered so freely in the garden that I thought it would be a good variety to experiment with. The result was a nice lot of blooms the first year from the larger bulbs, but scarcely any since. I have tried T. sylvestris, which, though interesting, does not make much of a show as the flowers are small; it continues to bloom, however, and I am hoping it will establish itself. In some very favourable districts Tulips may succeed in the grass, and it would be interesting to hear the experiences of others, but I think in the majority of cases money and time would be better spent on other things.—W. A. WATTS, *St. Asaph.*

Tulips in grass.—Many persons will, I think, agree with Mr. Joseph Jacob as to the results of planting ordinary Tulips in grass; they gradually become weaker until only a small single leaf is left. Why? There is no apparent disease. It seems a case of starvation. If so, why are not Narcissi starved? These, on the contrary (as your correspondent says), increase in vigour. Can it be that the Narcissi root deeper and so find food unexhausted by the roots of the grass? The roots of the Tulip are usually weaker and shorter than those of the Narcissus. If so, the case might be met by planting the Tulips deeper, say, 8 inches or 9 inches. Bulbs, as a rule, are not planted deep enough in grass. Of the Tulips we have tried to establish, Tulipa gesneriana and T. Golden Crown were the most successful; but these, after several years, have become too weak to flower. The orange tints of the latter variety harmonised splendidly with the Buttercups which flowered at the same time. In the illustration (page 30) the Tulips have the appearance of being planted in a prepared bed rather than in the natural turf, and are certainly thick enough to smother the grass to their own advantage.—J. COMBER, *Nynams Gardens, Crawley, Sussex.*

The Perpetual-flowering Carnation Society: An appeal.—I am sorry to learn from a communication from the treasurer that there is a serious deficit in last year's working, owing in a great measure to the unexpectedly poor attendance at the show on December 9. The Perpetual-flowering Carnation is so useful, and its possibilities so great, that anything that ministers to its extended cultivation and its improvement is worthy of encouragement. This society does both these things. At its shows both buyers and sellers are able to test new varieties and compare them with the old; its floral committee of trained experts help us in our selections; and a large membership and a good muster at its different exhibitions give encouragement to hybridisers to persevere in their efforts to give us beautiful flowers. Incidentally, it tends to prevent adventurers from palming off unseen but highly puffed up new varieties, which are really poor, as if they were very good. Mr. Hayward Mathias, Lucerne, Stubbington, Fareham, Hants, is the treasurer. I am sending him a small subscription myself. May I appeal to all amateurs and traders who love and who benefit by the Perpetual-flowering Carnation to follow my example, and if they are not members to become so at once.—JOSEPH JACOB.

A wonderful fruit.—Humour too seldom has a chance to enter into the deliberations of those grave and revered bodies, the Royal Horticultural fruit and floral committees, but a spice of such amusement entered into the work of the former body the other day when there was gravely presented to them a very commonplace-looking, somewhat conical and slightly ribbed Apple, not unlike the well-known Lady Henniker, for instance, over which a letter accompanying the fruit shed the halo of originality, the said fruit it was gravely said being the product of crossing the Apple and the Pear, and was one of that great American Magi's, Luther Burbank's, productions. Every effort was made by the large number of members present to find the Pear flavour, but no one was smart enough to detect it or to find cause for belief in the fruit's origin. A few members thought the fertilising pollen might have been that of the Quince, but that was exceedingly problematical. There seems to be no more of harmony of interest between Apple and Quince than between Apple and Pear. In any case the lion had brought forth a mere mouse, for the Apple was of a very moderate quality and flavour after all. It seems to be but fair to Mr. Burbank, however, to state that this eminent hybridist, who is said to be creating some cross-bred marvels, appears to be the victim of enthusiastic admirers, who at once create beautiful swans out of small ducks. A gentleman of undoubted reliability who has visited the scene of Mr. Burbank's operations admits that he is labouring hard and sincerely in his efforts to create novelties in fruits and vegetables. So far he seems to have produced nothing that can be regarded as new, distinct, or of a novel nature. Some day later, perhaps, the world may learn more fully what this interesting personality has accomplished.—A. DEAN.

Apple scab.—That this pest was very prevalent during the past autumn on Apple fruits was evident, the fungus attacking the fruit on trees that had previously been quite free from it. Probably very much of the trouble was due to the season, which was, in spite of there having been a large Apple crop, far from being an ideal one. A few days since, at the Surrey village of Lingfield, I had some Apples so fearfully affected with the fungus spots placed before me that they had literally eaten into the flesh, presenting the appearance of shot-holes. It was suggested that these perforations were produced by hail, but as they were most in evidence on the under-sides of the fruit, this discounted the assumption. The fungus having been so destructive, this was but natural, as moisture would cluster longer on the under-sides of the fruit than on the upper or exposed surfaces. While the climatic conditions which prevailed had much to do with the production of the scab, there is no doubt the condition of the tree-roots also was an important factor in the same direction, and the hesitancy, so general, to adopt spraying with mild sulphate of copper solution is a further one. If we could have a really warm summer and autumn, no doubt fruits would be fairly clean.—A. D.

"Herbaceous" *re* "The Garden" Show.—The enquiry of your correspondent "E. W. C." (Thirsk) *re* the term "herbaceous" or "hardy herbaceous," as per your schedule, opens out a large field for controversy; but for the purposes of your schedule may be restricted to (1) the meaning of the word "herbaceous," which is "a perennial root that produces an annual stem." This excludes all shrubby, semi-shrubby plants, Dianthus and other perennials, growths of which do not spring annually from below, or practically from the surface of, the soil. It excludes biennials, such as Canterbury Bells, Foxgloves, Eryngium giganteum, Coreopsis lanceolata and grandiflora (the last named is rather a big loss to a possible stand of hardy border flowers) and others, which, though used by exhibitors at times and passed occasionally by the judges, are not herbaceous. The term "hardy" should be understood to include only such herbaceous plants as provide resistance to, or an immunity from, frost in the open ground and only such as are cultivated in the open; but to place exhibitors on an equal footing, the degree of hardihood should be determined under conditions existing in the South of England, thus allowing North Country growers to afford shelter and protection to some of the more tender subjects, such as Gladioli in variety, Lobelia cardinalis in variety, Anchusas, Hyacinthus candicans, Montbretias, &c., which might otherwise be permitted to growers in the South, but be excluded from collections grown in the North. Before closing these few notes, I might point out that the judging of these classes is a matter of great difficulty and often disappointing (1) owing to there being no restriction as to the size of the bunches (this can only be regulated by stipulating the size of the tubes, all flowers forming the bunch to touch the water in the tubes), and (2) because the varieties comprising the collections being of different species, requiring some more, some less, skilful cultivation, thus giving no common basis for comparison. To my mind a small bunch of well-grown flowers showing the character of the variety should find greater favour than a large one of moderately well-grown flowers; but how often "weight" tells those whose gardens are small can best testify. I contend merit in cultivation should be the chief factor in deciding the placings. Judging should be, I think, by points, say, six points per bunch as a maximum, with, say, ten points for arrangement and effective staging. A reprint of the "Rules for Judging Hardy Perennials," issued some time ago by the Royal Horticultural Society, would prove of interest to your readers.—R. E. SHANKS.

The classification of perpetual-flowering Roses.—The Rev. J. H. Pemberton's letter in THE GARDEN of the 9th inst. is one of the most interesting, and I believe will prove to be most contentious, to the Rose world. No doubt the point must be settled very soon, and it is so nice that everyone will have to give way a little. To begin with, there are two names commonly used which are most misleading to the ordinary garden-lover, viz., Hybrid Perpetual and garden Roses. I am often asked: "What do you mean by garden Roses? Are they not all garden Roses?" In renaming I would suggest they be called the Hybrids (the Perpetual being lett out), and the garden Roses should be named the decorative Roses. The other sections, viz., Teas, Noisettes, Hybrid Teas, Chinas, &c., must surely stand as they are and not be thrown in together to make a grand "hash" of the lot. The Rev. J. H. Pemberton, I think, writes a good deal from the exhibitor's point of view; but, of course, the schedules can always be made out to allow the Hybrids, the Teas and the Hybrid Teas to be exhibited together if that be the desire. Still, I hope the Anglo-Sax-Norman principle will not be considered even by the National Rose Society. The really moot point is the large numbers of Hybrid Teas which are now being introduced and which will be much larger than any other section. Let them all come—they are very beautiful and welcome; but let them be defined correctly as Hybrids or Hybrid Teas and *not* Teas. To my mind the Cochets are really true Teas, strong growing if you like, but as delicate as any of the section. Mrs. Mawley I have never believed to be a Tea Rose. Look how it mildews, and right into the wood, too! Harry Kirk and Mrs. Myles Kennedy are both Hybrid Teas to my thinking; but I believe these were put into the Tea class simply to strengthen it, as so few new Teas are sent out. It will be interesting to note how our Continental and other growers will class them in a year or so. Charles J. Grahame, J. B. Clark and Hugh Dickson are really Hybrid Perpetuals; and if Ulrich Brunner and Marie Finger were sent out now they would assuredly be called Hybrid Teas. It is the fashion, and they sell. Frau Karl Druschki, by its wonderful mass of blooms in the autumn, is more entitled to the name of Hybrid Tea than any of the above. One swallow does not make a summer, nor does one miserable little flower in the autumn make a Perpetual. If you amalgamate the Hybrid Perpetuals, Teas and Hybrid Teas and call them, say, the "Hotchy Potchies" and show them under this name, then the rugosas, Chinas, Polyanthas, &c., would, I suppose, be dubbed the "Wata Watas," and so on. I trust, however, Mr. Editor, this will not take place. The only thing really required is that Roses as they are sent out, or after they have been in commerce a year or so, should be properly defined by a competent committee. We must keep to the ordinary definitions, if only for the man who wants Roses solely for his home, and he is numbered by the ten thousand while the exhibitor is only in tens. He wants to know the strongest growers and hardiest Roses for his town garden, with northern aspects, &c. Well, a dozen "Hotchy Potchies" would not do for him; he would require a dozen of the hardiest Hybrids and Hybrid Teas. There is sure to be more said on this subject.—GEORGE PRINCE, "*The Oxford Roses*," *Longworth.* [We hope this question will be taken up by rosarians; it is important.—ED.]

TREES AND SHRUBS.

A FEW GOOD SHRUBS.

THE following shrubs are both ornamental and distinct, while, judiciously planted, they afford a pleasing variety to the few common subjects which are repeated again and again in most gardens.

A DOUBLE DEUTZIA (D. CRENATA FLORE-PLENO). — Notwithstanding the fact that this Deutzia is easily propagated and a cheap plant in nurseries, a good specimen of it is not often met with, yet at its best it is really a very beautiful shrub. Apart from the beauty of the blossoms they are borne in the greatest profusion. It is not particular as to soil and situation, but succeeds best in a fairly deep open loam that is not dried up during the summer. As with many of the Spiræas, this Deutzia is much improved by a little extra attention, for the trimming out of old and exhausted wood allows the younger and more vigorous shoots a better opportunity to develop themselves, which treatment results in finer blossoms. There are two well-marked forms of this double Deutzia, and it is difficult to say which is the more beautiful. The first, known by the names of candidissima plena and Pride of Rochester, produces pure white blossoms, while the second has the outside of the petals deeply tinged with a kind of rosy purple. This feature is especially noticeable in the bud state, but it is also prominent in all stages of the flower.

AZALEA ODORATA.—This possesses a plurality of names, for besides the above it is also known as Azalea fragrans, Rhododendron azaleoides and R. sub-deciduum. It is supposed to be a hybrid between Rhododendron ponticum and one of the hardy Azaleas, and, according to Loudon, was raised about 1820. The flowers of this Azalea vary a good deal in colour, for in some they are very much of the hue of Rhododendron ponticum, while in others they are nearly white, and various intermediate shades of lilac and mauve are also represented among them. The leafage, too, is by no means uniform, that of some plants being very much paler than others, and while a few of them are almost if not quite deciduous, the majority of them retain a good many of their leaves throughout the winter. A bed of this Azalea is a very beautiful object at a time when most of the hardy Azaleas are over. During sunshine the fragrance of the blossoms is very noticeable.

MAGNOLIA STELLATA.—This is one of the early-flowering Magnolias and blooms about the same time as the Yulan, but unlike that magnificent tree, this will flower freely when not more than 2 feet high. It forms a numerous-branched bush, while the flowers, which are each about 3 inches in diameter, are composed of several strap-like pure white petals. A small bed planted with this Magnolia and carpeted with the North American Partridge Berry (Gaultheria procumbens) forms a very pleasing feature, as the white flowers contrast with the bronze leaves and bright red berries of the Gaultheria, while as the surface of the ground is covered, the blooms of the Magnolia are not so liable to be splashed during heavy rains as they would be without something of the kind. Magnolia halleana is also another name for this species.

RHODOTYPOS KERRIOIDES.—The specific name of this is very appropriate, for it much resembles the well-known Jew's Mallow (Kerria japonica), except that the blooms are larger and pure white, like single Roses. It is a native of Japan, whence it was introduced in 1866, quite hardy, not at all particular as to soil and will flower for months together.

INDIGOFERA FLORIBUNDA. — Though more tender than any of the preceding and often treated as a wall plant with satisfactory results, this Indigofera is very beautiful in the open ground, for even if cut down in winter it quickly recovers, and not only grows away freely, but will flower towards the end of the summer. In the open it forms a rather spreading bush, clothed with beautiful light-coloured pinnate leaves, and about August is plentifully furnished with spikes of bright rosy pink blossoms. In common with many leguminous plants, this Indigofera, from the deep-descending nature of its roots, will thrive in rather light sandy soils better than many other subjects.

THE ROCKY MOUNTAIN BRAMBLE (RUBUS DELICIOSUS) IN FLOWER.

RUBUS DELICIOSUS (the Rocky Mountain Bramble), of which an illustration is given, is widely removed from any other Brambles. Its slender branches are clothed with Currant-like leaves, and the blooms resemble pure white Dog Roses. Like the last, this is often trained to a wall, and in such a situation it flowers profusely; as a shrub, too, in the open ground it usually blooms well. It has been introduced into this country many years.

DAPHNIPHYLLUM GLAUCESCENS.—This differs from the whole of the foregoing in being evergreen in character, and it must be regarded as a decidedly ornamental member of this class. It forms a sturdy-growing, freely-branched, rounded, leafy bush. The leaves are each 6 inches or 7 inches long and 2 inches wide. The upper part of the leaf is of a delicate pale green, while the under surface is clothed with a bluish grey glaucescence. The bark of the young shoots and the midribs of the leaves, as well as their stalks, are red. A variety of this last is jessoensis, whose leaves are smaller and more rounded, while the plant is dwarfer in growth. This is rather more tender than the type, which is scarcely ever injured, even during severe frosts. W.

A FINE WISTARIA.

THE Wistaria shown in the illustration on page 65 grows on a wall facing south in the garden of Doddington Hall, Lincoln, an old Elizabethan house with a walled-in garden, of which the illustration shows a part. The Wistaria has been planted over forty years and the soil is sandy.

THREE BEAUTIFUL ORNAMENTAL FRUITED SHRUBS.

AT Kew numerous charming examples of hardy shrubs may be noted, and during a visit there last autumn the following struck me as particularly noteworthy, as they were exceedingly bright, cheerful and absolutely distinct from each other:

Hippophaë rhamnoides (Sea Buckthorn).—There is a large clump of this on the bank of the lake between the Museum and the Palm House. The plants, consisting for the most part of females, had the Willow-like shoots closely packed for some distance with their bright orange-coloured berries, and as seen at Kew there is no other shrub with which this Hippophaë can be for one moment confounded. In addition to this, its equal in beauty would be extremely difficult to find. It may be noted that this Hippophaë is dicœcious, that is to say, male and female flowers are borne on separate plants. Such being the case, in order to ensure fertilisation one male should be allowed to about half-a-dozen females. On the males, of course, no berries will be found. When planted near water as at Kew the Sea Buckthorn finds a congenial home.

Symphoricarpus racemosus (Snowberry).—The fact that the large, conspicuous and freely borne berries of this North American shrub are pure white causes it to stand out in a marked manner from its associates, as fruits of that tint are but little represented among hardy shrubs. The Snowberry is well known as a shrub that will hold its own even in dry sandy soils, but its beauty when in fruit is so great that it may with advantage often be planted under more favourable conditions.

Celastrus articulatus.—This is an exceedingly vigorous twining shrub of a deciduous nature which was sent to this country a few years ago from Japan. It is not in any way adapted for formal training, but treated as at Kew, where it rambles over a sloping arrangement formed of a few poles, it soon covers a considerable space. Allowed to grow at will, the long, flexible shoots often intertwine around each other and frequently dispose themselves in a loose and informal manner. For a considerable portion of their

length they are studded with clusters of bright-coloured fruits, borne on short-stalked clusters. When ripe they are yellow in colour, but like the fruits of the Euonymus, to which the Celastrus is nearly allied, after a while they split open and thus disclose the red seeds within. In this stage they remain a considerable time, and in Japan the long sprays are then used for decorative purposes indoors. H. P.

DAFFODIL NOTES.

DAFFODILS IN POTS.

I HAVE been enjoying a few pots of good Daffodils almost all January. It is true I had none for the dinner-table on New Year's Day, but this was exceptional. There is no difficulty whatever in having both Henry Irving and obvallaris (Tenby Daffodil) out in full flower then. The only thing is to get the bulbs early in August and pot them immediately, taking care that they have sufficient moisture to promote root growth should there then be a long spell of dry weather, and bringing them about mid-November into a cool greenhouse temperature, which may be increased or the pots removed to a warmer part of the house when December is well in. I always have some Golden Spur to follow as a second early. It is more floriferous than either of the others, but never seems quite as satisfactory for the very earliest batch. It lacks that stiffness which stands both Henry Irving and Tenby in such good stead. A little later on, however, it is excellent. This winter I have been growing the ordinary Campernelle and also the rugulosus variety in considerable quantity as cut flowers.

With the same treatment as I have above indicated I had a nice little gathering on January 13. The stems were long and strong and the blooms themselves very fair indeed. I found the ordinary variety a little the earliest, but the secondary spikes were very apt to be blind. Still, there were quite enough good ones to make it well worth while for anyone to grow it for cutting. The rugulosus variety is not so free, but, on the other hand, it has not so many blind flowers.

As I consider the question of what to grow and what to avoid for early pot work very important, I am trying an experiment which may be of some practical utility in this direction. Its primary object is to test what influence the early and late ripening of bulbs has on the quality and time of their flowering. To put it in a concrete form, what I am endeavouring to find out is the practical results of a Penzance ripened bulb compared with one from Lowdham, and how both these compare, say, with Lissadell or Dutch grown ones. I hope later on in the season to devote a special article to this trial.

YELLOW STRIPE.

I have just been reading an American work on the Daffodil by A. M. Kirby. It is one of the Garden Library Series, and published in New York. As I laid the book down I said to myself, "Happy America." "One insect and one disease," and that disease not yellow stripe, but only our old friend basal rot. Happy America, indeed, not to know yellow stripe. We have it here in the Old Country, I regret to say, and it seems to be increasing. A good summary of all that seems to be known about it can be read in the Journal of the Royal Horticultural Society for November, 1908 (Vol. XXXIV., Part II.), in an article by Mr. Darlington. The verdict he gives is, "Nothing proven," "More facts wanted." I mention this now because any observations bearing on the subject, if carefully made and recorded, cannot fail to be of value in trying to get to the bottom of this mysterious visitation. JOSEPH JACOB.

THE FLOWER GARDEN.

THE CULTIVATION OF THE NEAPOLITAN VIOLET.

WERE one to pause for a moment to enquire what are the recommendations necessary to constitute a popular flower, we should discover that a due proportion of floral beauty either added to or apart from exquisite fragrance constitute the essential requisites in order to command a share of general admiration. Simplicity of culture does not appear to be at all a necessary adjunct, for some of our most favourite flowers require a minutely particular and assiduous course of treatment in order to secure that state of perfection for which their inflorescence is so especially prized. When, however, a beautiful and fragrant flower adds to its other charms that of being easily grown, we cannot hesitate to consider it as an important advantage. Of its attractiveness one need not write, and as it breathes out a fragrance scarcely equalled, and certainly not excelled, it is a matter of surprise that the Neapolitan Violet does not rank higher in popular estimation.

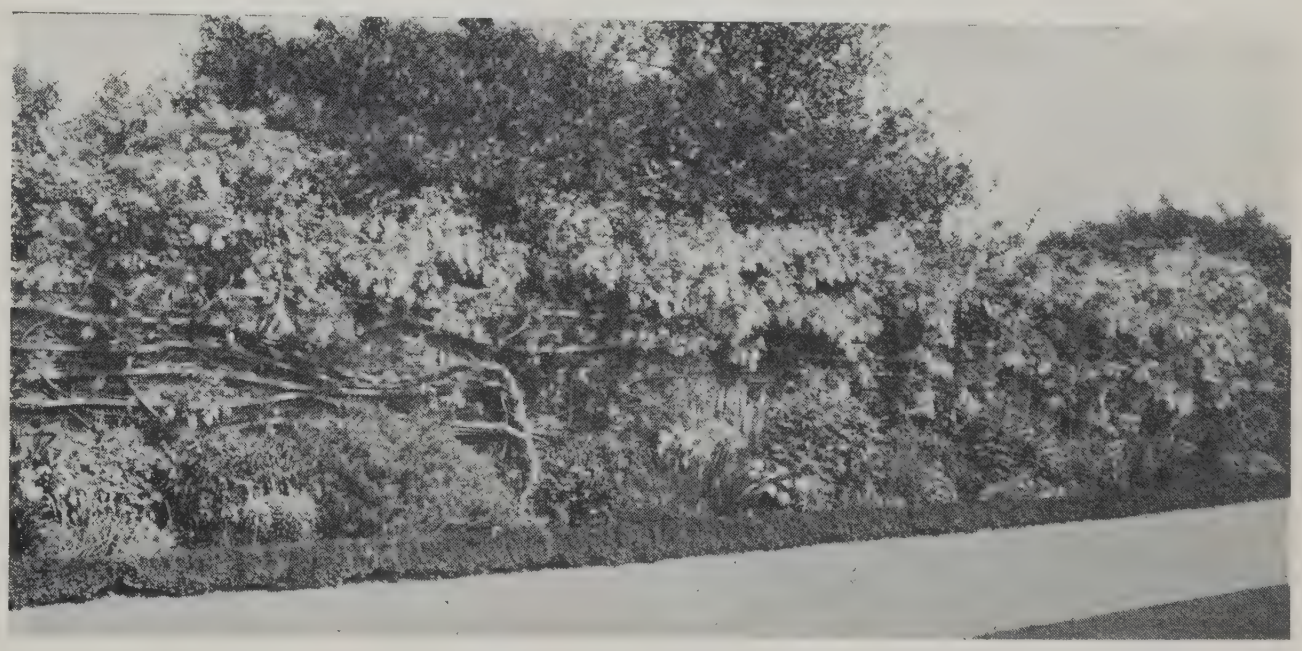
That its cultivation is not attended with extraordinary difficulty will be evident from the routine of treatment recommended below, which will be found abundantly sufficient to ensure success. As early in the spring as runners are to be obtained, take them off and plant them a few inches apart in light, sandy soil, covering them with a hand-glass and shading from the sun if necessary; they will generally be in a fit state by about the latter end of April, and two or three weeks after they are taken off they will be well rooted and ready for transplantation.

Prepare for them a bed of light, rich soil on a warm border having a south-west exposure; then take up the plants carefully and plant them at about 9 inches apart in the prepared soil, frequently loosening the surface with the hoe, keeping the plants free from weeds and assiduously administering water in dry weather. About the beginning of August make a bed of faggot wood about 3 feet in height at the back and 2½ feet in front, facing the south, and large enough for a one-light or two-light frame, according to the quantity which it may be thought desirable to cultivate. On this wood spread a layer of about 6 inches of newly-rotted manure, and on this place, 1 foot thick, a compost prepared by mixing in the proportion of one barrow-load of sandy loam to two barrow-loads of sharp sand. These should be well incorporated and mixed some time previously. Contrive so that when this compost is placed in the frame the surface of the soil may be about 15 inches from the glass. After a few days the plants may be taken up carefully, the runners trimmed off, and planted at 9 inches asunder each way in the frame. When planted give a moderate watering, which may be repeated once or twice when the plants seem to require it.

During the two or three succeeding months, viz., throughout August, September and October, they should receive all the air possible by allowing the lights to remain off day and night, except in wet weather. An occasional light shower during the earlier part of the autumn will not be found to injure them; but it is highly important to prevent the soil from imbibing too much moisture, this being their greatest enemy through the winter. When the nights begin to get cold, the lights should be placed over them, taking care to remove them through the day in fine, mild weather. In the dull, heavy weather which generally prevails in November and December it is not advisable to take off the lights; air should, however, be admitted by tilting up the light a few inches either at the back or front of the frame, according as the current of wind may proceed from the north or south, arranging it so that the wind does not blow directly on the plants. When they begin to flower, which is usually from December throughout the winter and spring, air should be less abundantly admitted, which will induce the buds to expand more freely. Some air should, however, be admitted in order to improve the odour of the blossoms.

As soon as frost commences, the bed and frame must be well cased round with coarse long litter and the glass matted at night. This must be continued throughout the winter, proportionally increasing the coverings, so as to effectually preclude frost. In severe and continued frost it is almost impossible to avoid having the mats and covering on the glass during the day. This should, however, be avoided as much as circumstances permit, removing them so as to admit a portion of light, if it is only for an hour or two; at all other times the covering should be removed throughout the day. Water at this season, if not totally denied them, should only be administered in very small quantities, and not at all unless it is absolutely required. R. GILL.

(To be continued.)



ONE OF THE FINEST WISTARIAS IN THE COUNTRY—IN A LINCOLNSHIRE GARDEN.

THE ICELAND POPPY.

FEW flowers are more esteemed for decorations than those of the Iceland Poppies. The plant is easily grown, and can be flowered the same year when sown early and planted out in the garden. If sown in boxes placed in moderate heat in February, the young plants gradually hardened off and finally planted out, an abundance of flowers can be gathered from July onwards. Seed sown

outside in April will produce flowering plants during the autumn if given good culture. In many gardens old plants of these Poppies perish during the winter, especially in low-lying, flat districts; but young plants will survive, and these are most useful for providing an early supply of flowers. To obtain these seed should be sown in July, the seedlings planted out when large enough and attention paid to pressing the soil firmly around their roots after a spell of frost during the winter. Some growers induce the plants to give an early supply of flowers by placing frames over them during winter. If care s taken to supply abundance of air, removing che lights entirely on all suitable occasions, this method may be safely adopted. Shallow frames should be used, otherwise the foliage is liable to become weak and present a blanched appearance owing to the obstruction of light. When this occurs the plants are weakened and will not flower satisfactorily. Early flowers are always most welcome, especially where quantities are required regularly for dinner-table and other decorations. Seed of the following colours can be obtained: Pure white, orange scarlet, scarlet, shades of lemon, cream, buff and pink. A mixed packet of seed will produce hundreds of plants of the above in delicate shades of colour, and I am confident that the beginner who is successful with these charming Poppies will not fail to keep up an annual supply. C. RUSE.

CRUSTED ROCKFOILS ON THE ROCK GARDEN AT KEW.

CRUSTED SAXIFRAGES IN THE ROCK GARDEN, KEW.

ONE of the most valuable groups of alpine plants that we possess, viz., the Rockfoils, constitute a very numerous family composed of many diverse forms. These are easily divided into several distinct sections, of which the best known are the mossy, crusted and Megasea divisions. Belonging to the mossy section we have such as S. hypnoides (Dovedale Moss) in its numerous forms; S. muscoides, of which there are many varieties; and S. cæspitosa. These all form mossy tufts of the freshest green, and no plant is more useful for forming carpets than these. They thrive on half-shady banks or raised level ground as well as on the lower positions of the rock garden, and no plants are more easy to grow or increase by division.

Another valuable section is the Megasea group, the plants of which are entirely different in aspect to the above. This group includes the Siberian S. cordifolia and the Indian S. ligulata. They have large, leathery leaves which, in the first-named, are evergreen, and produce their rose-coloured flowers in dense bunches in early spring. For planting on rough banks they are very effective, or they may be used with advantage in the form of large groups in the wild garden or open woodland. Then there is the umbrosa section, of which the London Pride is the best-known example, a valuable plant for borders and shady places. Distinct in colour and habit is the purple Rockfoil (S. oppositifolia) with its creeping stems, and rosy purple flowers in the typical plant. A large form of this comes from the Pyrenees, and there is also a pretty white variety. They are early spring-flowering plants and require a half-shady, moist bank.

Perhaps the most important section of all is the crusted one, which includes many handsome and valuable garden plants. A group of these is shown in the accompanying illustration, which gives some idea as to their value for this purpose. There are many species and varieties of great merit which may be considered among the easiest of plants to grow, provided they are planted among plenty of stones to secure ample drainage. On old walls they may be planted to great advantage, especially where the wall is backed by soil and the stones are loosely put together without mortar. Here the rosettes may be inserted between the stones when in a small condition, and soon make respectable tufts that produce a profusion of flowers annually when established. Fissures in large masses of rock may also be utilised for planting crusted Saxifrages, and nothing is more effective than silvery cushions of these plants growing out of a narrow crevice and covered with long, light panicles of pure white flowers. Even when not in flower, the large rosettes of silver-edged leaves are most ornamental. The best of this section are:

Saxifraga catalonica, from the Pyrenees, one of the choicest and rarest species, with rosettes of recurved leaves having a broad silver margin and panicles of white flowers.

S. cochlearis may be described as one of the neatest and prettiest in habit, with small rosettes of silvery spoon-shaped leaves packed closely together and forming a dense mass. The flowers are produced in graceful panicles.

S. Cotyledon is easily known by its broad leaves and long pyramids of white flowers. The rosettes sometimes attain nearly a foot in diameter, with flower-stems of a height of 30 inches or more. There are several varieties, of which the largest-growing is icelandica; easy to propagate by means of side shoots, which are produced in profusion, and which when taken off and potted up soon make large rosettes. To attain the best results all side shoots should be removed from flowering crowns.

S. Hostii is a free-growing plant with strap-shaped leaves and flowers spotted with pink, which are more conspicuous in the variety macnabiana.

S. lingulata and its variety *lantoscana* are beautiful plants and among the choicest of this set, the latter having wreath-like panicles of pure white flowers.

S. longifolia. — This Pyrenean species is probably the most striking member of this group, either as a large silver-edged rosette of leaves, or when the stem is lengthened out into its pyramid of beautiful flowers. Confined entirely to the Pyrenees, it grows in the crevices of perpendicular rocks, sending out horizontally its beautiful cone-shaped panicle 2 feet or more in length. After attaining flowering size, which often takes several years, the rosette dies, seldom producing offsets. Seeds, however, are freely produced; but as the Saxifrages all cross very readily, care must be taken to prevent this occurring by placing a piece of gauze over the flower-spike intended for seed. Seeds should be sown in gritty soil in the spring in a cold frame. The seedlings are very slow-growing and require careful attention for some time.

Smaller-growing species are: S. cæsia, 2 inches to 3 inches high; S. diapensioides, with dense cylindrical rosettes; and S. valdensis, which may be described as a miniature S. cochlearis.

W. IRVING.

THE FRUIT GARDEN.

FRUIT NOTES.

TREES ON WALLS.—There is one thing that amateurs commonly overlook in the management of fruit trees on walls, and that is the imperative necessity of watering heavily and frequently even in the winter. It is too often assumed that, because a fair amount of rain has fallen and the soil in the middle of the garden is sufficiently moist as a consequence, the same condition prevails at the foot of the walls. This, however, is very far from being the true fact of the case. Not only do the walls throw off a certain proportion of the water, but the bricks of which the walls are constructed suck a very considerable amount of moisture out of the ground, so that it is always drier than the main part of the garden. Thus it becomes necessary, if we are to maintain our wall trees in a perfectly satisfactory condition, to give water in large quantities so as to ensure the soil always being pleasantly moist about the roots. Now is an excellent time to attend to this important work. No grower should be satisfied with a smaller soaking than three gallons to the square yard; and the chances are that if he increases the quantity to five gallons over the same area he will be doing still more good. In the event of suspicion of lack of food in the soil, the watering should be supplemented by equally heavy applications of liquid manure, using it strong on old, partially debilitated trees and weaker on those in superior condition. Strong stuff must not, of course, be given when the roots have become fully active, but this will not be the case yet awhile.

STANDARD TREES.—Standard trees growing in gardens or in orchards frequently suffer very seriously from insufficient supplies of food, and it is excellent practice to follow out the suggestions in the preceding paragraph in connexion with them. First of all loosen the surface soil to a depth of 2 inches or 3 inches, then persistently soak it with pure water until it is certainly moistened to a depth of 3 feet, and immediately afterwards use strong or weak liquid manure according to judgment. When the grower is satisfied that he has stocked the soil with readily available food for the trees, he should put on the surface a dressing of short, sweet manure. In doing this it is most important that material shall be used which will not settle down into a close, pasty mass, as this will arrest the ingress of fresh air, without which it is impossible for the trees to feed in a regular and satisfactory manner.

STRAWBERRIES.—The trimming up of plantations of this indispensable fruit should be pressed forward with all possible despatch. They will, of course, have received some attention in this direction in the autumn; but much work will now have to be done if the results are to be fully satisfactory. The beds should be cleansed of every vestige of weeds, dead and decaying leaves, and immediately afterwards the surface should be carefully loosened with a fork, not working it in too deeply, or serious injury may be done to the roots. As soon as this is finished it is sound practice to give a dressing of sulphate of potash and superphosphate of lime at the rate of 3oz. to the square yard; the proportions should be three of the latter to two of the former, and this application will do an immense amount of good to the plants during the early part of the season when roots are active; or it is permissible to substitute for this a heavy dressing of long, strawy manure, from which the plants will gain some support and also derive benefit from the straw after it has been washed quite clean by rains.

RASPBERRIES.—The cutting and cleaning up among the Raspberries should be pushed on to completion with all possible speed now. Remove all sucker growths that are not required for the formation of new plantations, and cut away the unripe tips of the canes retained for fruiting during the current summer. Afterwards lightly fork over the surface and give a top-dressing of a mixture of equal parts of short manure and half-decayed manure; the depth of this should be about 3 inches, lightly applied.

FRUIT GROWER.

THE ROSE GARDEN.

ROSE MRS. MYLES KENNEDY.

NOT only exhibitors, but also all who love a beautiful Rose for the garden, will welcome this superb variety. It is not one of those sorts that can only be grown by the exhibitor, for it possesses vigour and a constitution quite equal to a Viscountess Folkestone, and as the illustration, taken from a photograph kindly sent by Messrs. Merryweather of The Nurseries, Southwell, so faithfully depicts, the beauty of form and general contour of the flower leaves nothing to be desired. We have surely sufficient of the "flimsy" Roses, although their colours are so entrancing, but if we can obtain novelties that combine quality of bloom with a free-flowering and sturdy growth, such Roses must command general favour. During last summer, when many days were exceedingly trying to our favourites, Mrs. Myles Kennedy seemed to defy the elements, which proved it to be a good reliable Rose for the exhibitor. Its colour is somewhat difficult to describe, but "delicate silvery white, shaded buff and deeper pink centre" is the raiser's (Messrs. A. Dickson and Son's) description. I need hardly say this Rose received the gold medal of the National Rose Society, and probably the medal has never been awarded to a variety more richly deserving it. Some thought it should have received the Nickerson Cup as the "best Tea sent out since 1902." As is well known, Mme. Jules Gravereaux gained this award, but Mrs. Myles Kennedy, having been only introduced in 1906, was not sufficiently known by those who voted. That it will make a glorious pot Rose was evidenced by the specimens exhibited by Messrs. Paul and Son of Cheshunt at the last Temple Show.

In the special audit last year, which Mr. Mawley arranges for the "Newer Tea Roses" for exhibition, Mrs. Myles Kennedy stands third, the names being given as follows: Souvenir de Pierre Notting, eighty-three votes; Mme. Constant Soupert, seventy-seven; Mrs. Myles Kennedy, sixty-eight; and Mme. Jean Dupuy, thirty-two. All these Roses should be added to any collection not already in possession of them, and exhibitors would do well to grow several plants of each both as half-standards and bushes, especially those who make Tea Roses a speciality. I must say that the border line between a Tea and a Hybrid Tea is exceedingly narrow in the case of Mrs. Myles Kennedy. We seem to require some tribunal to determine this point before the novelty is placed on the market. Although it may not be a matter of importance to the ordinary grower, to those who exhibit it makes a great difference.

FLOWER OF ROSE MRS. MYLES KENNEDY.

ROSE CARMINE PILLAR AS A STANDARD.

A FULL-HEADED standard of this Rose produces a grand effect in the garden, especially when there is a good background of dark evergreens. Those varieties which custom has looked upon as only suitable for pillars, arches and pergolas make magnificent objects on stems if tended with cultural skill and well isolated. I have seen such Roses placed in a bed or border with varieties of the Hybrid Tea group, and they not only spoilt the effect of the latter, but were themselves quite lost. Let them have plenty of space, then they are objects of much interest.

There are several other sorts suitable for growing in standard form. One especially I might name, and that is Waltham Bride. When its long, drooping growths are covered with the fragrant white blooms the effect is delightful, and this Rose would associate well with Carmine Pillar. Another beautiful sort is Grüss an Zabern; in fact, many of the multiflora group could be used in this way to great advantage.

It seems as though we shall soon have a very varied array of colouring in this group. In Ne Plus Ultra we have a sort much darker than Crimson Rambler, and now there has appeared one named Veilchenbleau, which is said to have blooms of a bluish shade of colour.

P.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Bulbs that were planted in good time are now showing well through the soil, and where the surface of the latter is by any means caked, much good will be done by stirring it with a small hoe or even a bluntly-pointed stick; this will admit air, which is of the greatest benefit to the plants. Where a top-dressing of manure was given some weeks ago it is just possible that a few lumps or cakes escaped breaking, and these are capable of creating much mischief in the way of deforming foliage and flowers that are trying to push through them, hence in stirring the surface a sharp look-out must be kept for such. Beds which are to be planted with Carnations must have immediate attention, the soil must be thoroughly well drained, and the plants will be much benefited if a good dressing of old mortar rubble can be added to the soil, applying a barrow-load to each square rod of ground. If the soil is very poor a little perfectly-decayed manure may be added, but it is better to select a bed that was well manured for a crop of something else last year. Well dig up the bed and leave it in a rather rough condition until planting-time.

Frames.—Bedding plants, such as Geraniums, Heliotropes, Marguerites and Coleuses that are in warm frames, will now or shortly need potting off, that is, where the cuttings were rooted in boxes. If they were rooted singly in 2½-inch pots, these will carry them along for several weeks yet. Use soil composed of two parts loam, one part decayed flaky manure and a good dash of coarse sand. Some growers prefer to pot the rooted cuttings direct into 5-inch pots, in which they remain until planting-out-time; and where proper attention is given to watering, this method answers very well. For the beginner, however, it will be best to use 3-inch pots, placing one young plant in each; then, when these have become filled with roots, the plants can be moved into the larger-sized pots named above. By adopting this course the evils consequent on over-watering are considerably lessened. Plants in cold frames will daily need more air, and much good will be done by overhauling the pots, stirring the surface soil, examining the drainage holes and removing any dead or dying foliage.

Greenhouse.—Tuberous Begonias may now be restarted into growth. Where they have been

1.—HERE IS SHOWN A "HEEL"; CUTTINGS WITH THIS ATTACHED ROOT MORE READILY THAN THOSE WITHOUT IT.

retained in the old soil all the winter, shake this quite away. After this I prefer to place the tubers nearly touching each other in a box of very good soil made up of loam one part, peat one part and flaky leaf-soil half a part, with some silver sand added, or, failing this mixture, Cocoanut fibre refuse may be used. Just leave the tubers with the tops showing through the soil or fibre. When shoots 1 inch or rather more have been made, the plants can be transferred to their flowering pots. Treated thus the tubers usually break into growth better than if started in the pots with ordinary soil. Tuberoses may be potted now. Remove all side eyes or buds and pot the bulbs so that about half an inch or rather more of each remains above the surface. Three bulbs in a 6-inch pot usually do well. Do not give much water until growth is evident. Shake out old Fuchsias, prune the growths hard back and repot them in the same-sized pots if possible, plunging the latter in Cocoanut fibre refuse and giving the tops a light syringing morning and evening until growth has well commenced.

The Vegetable Garden.—The present is a good time to plant Shallots, which should be placed in rows about 1 foot apart, leaving a distance of 8 inches between each two bulbs; 3 inches is a good depth to plant. Root cuttings of Seakale that were made in the autumn may now be planted. Where the resultant plants are to be forced in the open, plant three cuttings in a triangle each side of which measures 1 foot; they can then all be forced or bleached with one pot or box. The clumps should be 2 feet 6 inches apart. Where, however, the plants will be lifted for forcing, the cuttings may be planted 10 inches apart in rows 18 inches asunder; grown thus the most is made of space and the plants are easily cleaned in the early stages of their growth. Be careful to plant the cuttings the right way up, and let the top of each be just level with the surface of the soil. Celery seed must be sown now where good plants are required. Use shallow, well-drained boxes of sandy soil in which a good percentage of leaf-mould has been incorporated and make it moderately firm. Scatter the seeds thinly and cover very lightly. A temperature ranging from 50° to 60° will effect germination, which, however, is always slow, hence the grower must exercise patience. H.

PERPETUAL-FLOWERING CARNATIONS AND HOW TO GROW THEM.

THE introduction of one or two varieties of these Carnations, notably Mrs. T. W. Lawson, from America some few years ago, has created a remarkable demand for this lovely flower. Their value for decoration in rooms and for sprays or button-holes, especially during the dull days of winter, cannot be denied. In large gardens it is possible to devote houses to their cultivation, when their wants can be readily attended to. The amateur, however, with his one small greenhouse can usually find a place in this where he can grow them successfully. What is more pleasing to the city man than to go into the greenhouse before proceeding to business and cut a Carnation for a button-hole. It may be less trouble to purchase a flower for a few pence, but there is infinitely more pleasure in wearing a home-grown one. The most suitable season for

Rooting the Cuttings is from January to March. Most professional gardeners have a propagating frame already to hand with bottom-heat. The amateur not possessing such a luxury can soon fix one up himself with very little trouble. A wooden box placed on the hot-water pipes will answer the purpose admirably. It should be about 8 inches deep and 1 foot wide; the length will depend on the number to be inserted. In the bottom of the box place 3 inches to 4 inches of coarse sand, making it as firm as possible, and then give it a good soaking with water. The most suitable shoots for cuttings are the side-growths on the stems of flowering plants averaging about 3 inches in length. These can generally be severed from the parent plant by a gentle downward pull. At the base of each cutting taken off in this way will be found a small portion of the bark or skin of the older stem, as shown in Fig. 1. This is termed a "heel"; cuttings with this attached root more readily than those without it. The only preparation such a cutting requires is to remove two or three of the bottom leaves. The cuttings may be inserted in the sand with a blunt-pointed stick about the size of a pencil 1½ inches apart. Make the hole only of sufficient depth so that

2.—THIS SHOWS THE CUTTINGS IN 4-INCH POTS—FOUR IN EACH POT.

the base of the cutting rests on the bottom of the hole. Press the sand firmly round each cutting, water well when all the cuttings are inserted and cover the top of the box with a sheet or sheets of glass. In such a position the cuttings will root in from three weeks to a month. During this period it will be necessary to water the cuttings several times, as the heat from the pipes will dry up the sand. If possible, the glass should be removed for an hour each morning and wiped, but the amateur cannot always find time to do this. An alternative method to rooting the cuttings in a bed of sand is to fill 4-inch pots with sand and place four cuttings round the sides of these, as shown in Fig. 2. The pots are then plunged in fibre in a box on the pipes or in a propagating frame with bottom-heat. Some growers root their cuttings in soil, but we find it much simpler and quicker to use sand. A cutting in sand will make as many roots in three or four weeks as a cutting in soil will do in six weeks. One important point to always bear in mind is to pot off cuttings struck in sand as soon as rooted, or they will receive a check; cuttings in soil will not suffer if potting cannot be done for a few days.

Potting the Rooted Cuttings.—When first potting it will be better to keep the plants close for a few days, after which they may be placed on the lightest shelf close to the roof-glass in the house. As soon as the young plants are well established and growing freely, the growing point should be taken out. This will induce the plant

3.—A BUSHY PLANT SHOWING THE CUTTING AND THE NUMBER OF GROWTHS ON THE OLDER SPECIMEN.

to make a number of growths and form a bushy specimen as illustrated in Fig. 3. When these side growths are pushing freely the plant will require a shift into a larger size pot. At this period the plants may be accommodated in the garden frame, where they may remain for the summer. During fine weather in July and August the plants will benefit by having the lights entirely removed. About the end of August or early in September it will be necessary to place them in the greenhouse. By this time some of the earliest plants will in all probability be pushing up flowering shoots. The lightest and sunniest position in the house should be selected for Carnations. A suitable temperature is 45° to 50° at night, rising to 55° by day, except during severe weather. Avoid keeping the house too moist and do not overwater the plants, but when dry give them a good watering. Each shoot should only be allowed to produce one flower, the central bud being left and all the side ones removed as soon as large enough. As the flowers are cut or they fade on the plant, the stems should be cut down to within 4 inches to 6 inches of the base. The plant will then produce a number of sturdy shoots (Fig. 4) and keep up a succession of flowers practically throughout the summer. A useful selection of twelve varieties for an amateur to commence with is: Enchantress, flesh pink; Fair Maid, rose pink; Britannia, crimson scarlet; Mrs. H. Burnett, salmon pink; Lady Bountiful, white; White Perfection; Harlowarden, crimson; Mrs. M. A. Patten, white, marked bright pink; Mrs. T. W. Lawson, cerise pink; Nelson Fisher, bright cerise; Winsor, silvery pink; and Jessica, white, pencilled scarlet.

THE GERMINATION OF SEEDS.

THE season is rapidly coming when seed-sowing will form a very important item of the weekly work in the garden. Sound seeds, of course, will germinate in certain adverse circumstances where older seeds would entirely fail; but the very best seeds will prove unsatisfactory if wrongly treated, and many instances are known where seedsmen have been blamed for sending out bad seeds, when the sole cause of failure was really bad treatment of good seeds. No one wishes to fail to procure a good crop of seedlings after having sown the seeds, as valuable time is lost in such cases, as well as money in having to purchase a fresh supply.

How to Sow Seeds.—I am here referring to seeds which are sown in pots, pans or boxes in glass houses or frames, where it is quite possible to make ideal conditions for the raising of seedlings. Heat and moisture are two absolutely necessary essentials to success. Excessive moisture without a certain temperature will at this season cause many kinds of seeds to rot in the soil; but heat and moisture combined induce rapid germination and, consequently, a high percentage. I will give a simple illustration. If the seeds of Dwarf Beans or Sunflowers are sown in a wet soil which is afterwards kept in a saturated condition and at a very low temperature, they will most likely all decay, at any rate most of them will; but if the seeds be sown in a moderately moist compost, the latter kept uniformly moist and not beyond the medium condition and the temperature maintained at about summer heat, they will quickly germinate.

The Proper Depth to Sow.—Then there is the question of depth and, coupled with it, character of soil. If very small seeds—Mignonette, for example—be buried 1 inch deep, few seedlings would appear. The seeds would germinate, no doubt, but the very tender shoots would soon perish, not being able to penetrate the thick crust of soil. Now, this depth of 1 inch would just suit a seed the size of that of the Dwarf Bean, but the ideal depth for the Mignonette seed is rather less than a quarter of an inch. Here we must also take into consideration the character of the soil. In boxes or pots under the cover of glass, the depth should be rather less than in the open border later in the season, for this reason: that the soil indoors is, as a rule, finer and closer fitting, thus conserving moisture better than in the case of the open border, where the soil is more open or coarser. Then there are seeds which resemble dust. These should be sown on the flat, firm surface of the soil, and not buried at all. Begonia, Gloxinia, Gesnera and similar seeds are dust-like, and must be sown on the surface. To ensure success, and this means a high percentage of germination, the surface on which the seeds are sown must be properly prepared. After draining a pot or pan and more than three-parts filling it with compost, some coarse silver sand should be scattered thinly on it. Then apply water, and after it has drained off sow the seeds, cover the pot with a loose square of glass and, finally, brown paper until the seeds have germinated. The coarse grains of sand retain moisture round and beneath them for a long time, and this conduces to germination of the seeds more surely than a dry soil surface.

AVON.

HOW TO TREAT SEEDLINGS RAISED UNDER GLASS.

DURING the early months of the year the raising of numerous plants from seeds is one of the most important tasks the gardener has to perform. Everyone who has experience will know that although the seeds may germinate most satisfactorily, a large percentage of the tender seedlings will quickly die or fail to make good plants if subjected to the slightest neglect at the critical period. Thin sowing is advisable in all cases, and perhaps this matter receives more attention now than formerly; but, still, many young seedlings are much weakened by being too crowded in the seed pots or pans. The crowded state of the plants is often the cause of large losses through damping off, especially when the watering is not most carefully done. The fungi which cause this disease are so minute that they cannot be discerned with the naked eye, and the first indication of their presence is the wilting and collapse of the seedlings that are attacked.

The careful watering of seedlings is most important, and soft water should always be used where obtainable. Avoid chilling the plants with cold water, but use it when at the same temperature as the atmosphere of the house in which the plants are growing. Much water is not required, but be sure that the soil is not allowed to become too dry. Seedlings cannot draw nutriment from a dust-dry soil and must quickly perish if this state of things is allowed to exist. In most cases plants raised in propagating cases should be removed as soon as germination takes place, otherwise a weak, attenuated growth is produced and the plants are ruined. A few hours' neglect in this matter may mean a total failure. Pots or pans of seed which are covered with glass, paper, moss or any other material must be frequently examined, and as soon as the young plants make their appearance remove the covering; it is better to err by removing this too soon.

The majority of young plants need a light position, and shelves are very useful for their accommodation. A sudden change of temperature for the most tender seedlings must be carefully avoided as much as possible. Plants of hardier subjects raised in heat, and eventually intended for the embellishment of the greenhouse or the flower garden, must be gradually "hardened off." This process must be carefully accomplished, as extremes of temperature are detrimental to sturdy growth. Plants raised in strong heat should first be removed to a structure where a temperature several degrees lower is maintained before placing them in a cool greenhouse or frame. Fortunately, many beautiful flowers may be raised without the aid of very strong heat, a cool greenhouse or even a frame being all that is required.

As soon as the seedlings can be handled, pricking out must be done. Prepare light, sandy soil for this purpose and do not press this too firmly, when the soil is in a good condition, neither too wet nor too dry, moderate pressure with the fingers being all that is necessary. Remember that plants pricked out round the outside of the pots or pans will root quicker and more freely than those in the centre, and for this reason, where space permits, many of the most choice seedlings are often pricked out round the outside of 4½-inch pots, the centre being left. This plan also has other advantages, viz., the plants are easily removed without the risk of damage being done to their roots, and again, the space left admits a means of water being applied without damping the foliage, and allows plenty of room for sturdy development. Strong, healthy seedlings are not difficult to grow into most excellent specimen plants; but, on the other hand, weak, sickly seedlings can never really produce satisfactory results, therefore every effort should be made to secure the best results by the most careful treatment from the time of sowing the seeds.

C. RUSE.

4.—HERE IS A PLANT FULL OF STURDY SHOOTS; FLOWERS WILL APPEAR PRACTICALLY THROUGH THE SUMMER.

THE TOWN GARDEN.

LAWNS AND GRASS EDGINGS. — It is really astonishing how quickly a neatly-swept lawn becomes untidy again, and where a large portion of the garden is devoted to grass the cleanliness of its surface is a matter of great importance. But there are certain times when it is not advisable to do any sweeping, namely, while frosts prevail and during very wet weather. In the first instance the blades of grass would be much bruised, for most of the foreign matter which one wishes to sweep up will be frozen hard to the ground. In wet weather sweeping may be done if there is great necessity for it, but the grass is smeared with soil and afterwards presents a dull, untidy appearance. Choose a calm day when the grass is dry, then all leaves and bits of wood will be loose and easily removed. Worm-casts are then also dry, and the besom will scatter them before it. Directly after the sweeping is done roll the lawn, as the operation will do good though the surface be dry. Grass verges should be treated just the same as the broader expanse of lawn; but it will be necessary to cut the former, as the great amount of rolling they receive and the walking to and fro on them during the season press out the edges unduly. This work should be deferred until all danger of severe frosts is past. If one cuts the edges now (as I know many amateurs are tempted to do), the soil will crumble away again owing to the action of the frosts upon them, and the lack of a firm, smooth face to the verges makes the use of the grass shears a difficult matter in the summer-time.

SPRING-FLOWERING PLANTS. — Time passes very quickly—especially does it seem to pass quickly to those people who are fully occupied—and we are now, once more, almost within view of the spring flowers. Everything should be done to make the latter look as beautiful as possible when they develop; the foliage and stems must be kept in a healthy condition, the surface of the border soil neat and clean, and frosts excluded. Cocoanut fibre, if not already put on, should now be placed neatly in a layer rather more than 1 inch deep all over the surface. First, however, remove any weeds, pulling them up by hand, as it is dangerous to use the garden hoe where bulbs are planted. If the weather is sufficiently mild and we find that some of the spring-flowering plants, such as Wallflowers, Aubrietias, Polyanthuses, Primroses, Daisies and Myosotis, have died, they may now be replaced by others from the nursery beds if there is a stock of reserve plants; otherwise we must wait until the month of April and purchase plants commencing to blossom or buy them at once. Plants put in before the flower-buds show always give more satisfaction than those that are lifted and replanted while in bloom. But it is a fact that very many owners of town gardens prefer to buy their spring-flowering plants late in the season when the latter are flowering. Of course, they obtain a fairly good show of blossom after the plants have partially recovered from the severe check given them, but the display is mostly a very limited one. I would like to impress upon all owners of town gardens the greater advantage of buying or lifting and transplanting home-grown plants early—in the autumn for preference, or in mild weather in winter if autumn planting cannot be carried out.

POSTS FOR CLIMBING PLANTS.—The present is a very suitable time for erecting new posts and replacing old ones where the latter have decayed below the soil level. In the latter case we can unfasten the branches and retie them again to their new supports much easier now, while the growth is arrested, than later on when new shoots and leaves are growing. It is while the branches are laden with foliage that strong winds have most pressure upon the plants, hence readers will be acting wisely if they carefully examine all old posts. AVON.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

HERBACEOUS PÆONIES. — These should be given a good position, and the soil, some time previous to setting out the plants, must be deeply trenched, with plenty of well-decayed manure incorporated with it as the work proceeds. With good treatment the plants soon develop, and are much admired when either by themselves in large beds or in the mixed borders. There are many striking colours, and some of the varieties are sweetly scented. These and many other plants are best planted early in autumn, but if obtained from the nurseries in pots, they may be put out at almost any time.

Old Walls and Fences.—Many plants may be planted by the side of old walls, &c., and in a few seasons they will cover them entirely with foliage and flowers. Some of the wichuraiana Roses—namely, Alberic Barbier, Gardenia, Paul Transon, Dorothy Perkins, Evergreen Gem, &c.—are well adapted for this work. Ampelopsis Veitchii, Honeysuckles, Clematises montana and Vitalba, &c., Wistarias and Jasmines are also very suitable.

Evergreens.—These may be pruned back if desirable, using a knife for the work. Do not cut them too hard, but shorten the overhanging pieces to look as natural as possible. Laurels which have got long and bare at the bottoms may be cut down to within 6 inches of the ground-level. These quickly make a fresh and healthy growth with ample foliage.

THE FRUIT GARDEN.

Peach and Nectarines.—Where a good amount of wall space is devoted to Peaches and Nectarines, the annual pruning and training may now be taken in hand. Those trees which may have been well attended to during last summer with regard to disbudding and the removal of young shoots not required will need very little thinning at this season. In cases where the trees have been neglected, the whole of the branches should be taken from the walls, thoroughly cleansed and then replaced at suitable angles. Having put the main branches in position, fill in with the young fruitful shoots. Those of medium growth, well matured, usually bear the most and best fruit. Do not overcrowd with useless wood, but allow ample space for the development of foliage and new growth for the following year's fruit. Syringe the trees with soapsuds at a reasonable strength, with a little flowers of sulphur added. Young newly-planted trees may be left alone for some time yet, to allow of the soil settling. Peaches thrive well in a well-drained border, consisting of sweet loam, old mortar, wood ashes, bone meal and manure, should the soil be short of fibre. Good varieties will be found in the following, and ripen in rotation, or nearly so: Waterloo, Hale's Early, Early Grosse Mignonne, Dymond, Bellegarde, Violette Hâtive, Crimson Galande, Marquis of Downshire, Sea Eagle and Princess of Wales. The last-named should be given a good position, otherwise, being late to ripen, the flavour is wanting.

VEGETABLE GARDEN.

Cabbages.—When the soil is sufficiently dry run the hoe between the rows, for it is important to keep the surface sweet and open. Our young Cabbage plants have stood the frost well, but other vegetables have suffered greatly. As the days lengthen another good planting should be made from the plants raised in August; these will form a capital succession to the more forward plants. Should there be likely to be a scarcity of autumn plants make a sowing in heat and treat them like the Cauliflower Ellam's Early, or some other quick hearting variety. H. MARKHAM.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

PLANT HOUSES.

POTTING FERNS.—As soon as Ferns show signs of renewed activity, and before the embryo fronds unfurl to an appreciable extent, any severe root disturbance deemed necessary should be carried out. The numerous varieties of the Adiantum family are probably the most largely cultivated of any, and as these develop quickly after a few weeks' rest, they should, accordingly, be the first to receive attention. A proportion of the older stock should be discarded annually and the vacancy thus created filled by young healthy plants, which may be seedlings raised and potted during the previous summer, or old plants broken up and a selection of the more vigorous pieces retained for this purpose. A compost having as its base good fibrous loam is very suitable for the generality of Ferns, and may have added to it, according to its richness and texture, such ingredients as peat, leaf-mould, and sand. Peat is more conducive to growth, but loam, as the principal, gives deeper colour and more substance to the fronds, an item of much importance if these are required for cutting. Clean, well-drained pots of the smallest size compatible with the well-doing of the plants are best, and are more convenient for these largely decorative subjects. In potting make the soil firm, and leave at least an inch of space inside the rim of the pot for adequate supplies of water.

Lycopodiums. — These require very similar treatment, but being mainly surface-rooting and needing plentiful supplies of water when in growth, may with advantage have the pots or pans half filled with crocks and the crown of the plant kept somewhat higher than in the case of Ferns. A moist atmosphere rather than much water at the roots should be afforded for a few weeks, or until the latter get hold of the new soil.

Propagating Stove Plants.—Crotons, Dracænas and many other fine-foliaged subjects are easily increased at this season by cuttings where a strong, steady heat is at command. Failing this, any plants that have become bare-stemmed may have a ring of bark removed immediately below the crown of foliage, and to ensure the emission of roots have a handful of moss and soil bound tightly around, or a slit made in the stem with a sharp knife is equally good; but care should be taken that the tongue thus made is kept open by the insertion of a strand of matting or a little moss before applying the ligature.

Corms and Tubers. — Gloxinias, Achimenes, Caladiums and other bulbous plants which for some time have been relegated to the background, or probably under the stages themselves, should be examined from time to time, and any that show evidences of growth be placed in a light position and have several slight applications of water for the purpose of refreshing the somewhat withered corms before being repotted. Among deciduous stove climbers few surpass in effectiveness the Gloriosas, G. superba being the best of a comparatively small genus. Having been kept dry for some time, the tubers may now be removed from the exhausted soil and the pots cleaned or changed and a rich compost used for repotting. The new soil will contain sufficient moisture to induce growth, as until this and root-action are both active water must be very sparingly applied.

FRUIT DEPARTMENT.

Figs.—The earliest crop is usually obtained from trees in pots, which, if started in November, will now be swelling fruit freely. As the foliage develops and the shoots extend, any of

the latter that are disposed to take an undue lead may be stopped. The main point for some time to come is to guard against any check being given the trees, such as sudden changes of temperature or a chill to the roots through using cold water, which is often the cause of the fruits being prematurely cast from the trees. Established trees, from which two crops of fruit are expected in the current year, should now be started into growth, previously moistening the borders in every part.

KITCHEN GARDEN.

Digging and Trenching.—The changeable, but generally moist, atmospheric conditions for some time past have delayed the progress of this work considerably, and rather than turn over the soil when wet, more especially after snow or frost, it would be better to employ the labour in burning rubbish, turning manure and heaps of refuse, repairing and gravelling walks, or putting those of grass in order, and leave soil intended for crops unworked until more favourable conditions prevail. JAMES DAY.

(Gardener to the Earl of Galloway.)

Galloway House, Garlieston, Wigtownshire.

THE EDITOR'S TABLE.

A DOUBLE-FLOWERED CYCLAMEN.

I have enclosed a Cyclamen bloom, the like of which, in my long experience in gardening, I have never seen before. I think you will agree with me, if it were set up as a button-hole few would hardly know it from a crimson Rose-bud. If we could get a fixed type like this I think it would be a great acquisition. The seed was obtained from Messrs. Toogood and Sons as Toogood's Butterfly. I might say the plant has only thrown two blooms like this, the other flowers being single but very fimbriated.—W. HUMPHREY, *The Holt Gardens, Warlingham, Surrey.*

[An exceedingly good specimen of a double-flowered Cyclamen of the fringed type. Of the numbers that come under our notice we never remember a more striking flower of this class. As our correspondent states, if it was mounted as a button-hole one might readily take it for a crimson Rose-bud. The fact that only two blooms like this have been borne by the plant shows that it is more or less of an accident. Still, if it is possible to get seeds from the flowers that show this new departure, it might be possible to lay the foundation of quite a distinct race.—ED.]

THE GREENHOUSE.

FORTUNA—A NEW PERPETUAL-FLOWERING CARNATION.

ANYONE who is looking out for a good novelty would, I think, do well to give the new Fortuna a trial. Raised by Mr. H. Burnett in Guernsey, it was first offered to the public at the Perpetual-flowering Carnation Show last December. In form and size it reminds one of Fair Maid, but the new-comer is a beautiful buff, with an unmistakable flush of flesh colour, rich and deep in tone in the heart of the flower, and then gradually passing away as the petals open out, until at their margin it seems to have gone. It at once suggested to me the healthy glow of some dark-skinned beauty, just as a new lemon yellow seedling, which will be brought out next autumn, appeared to be the floral equivalent of the colder beauty of a fair-skinned blonde. I was told it lit up well, and accordingly I took some flowers of both kinds home and tried them under artificial light. When my hostess saw them in a little vase on the dining-table, she said, "Oh, that is white!" pointing to the yellow, and so it looked. Fortuna, however, was still a very distinct buff, a little paler, perhaps a little more refined, but still unmistakably buff. It showed up well on the white cloth. A bunch in a lady's dress, fixed up with an appropriate green, would be beautiful and, I think I may say, would "go with anything." The plant has a good constitution and is a free and perpetual bloomer. The flower-stems are long and stiff and the calyx does not burst. In size it is on the small side like Governor Roosevelt or Fair Maid, but this is no detriment; on the contrary, to many and for many purposes it will be a recommendation. JOSEPH JACOB.

THE VALUE OF LEAF PROPAGATION.

THE careful gardener should always be at some pains to acquaint himself with the best ways of increasing his stock. It is fortunate that, in a general sense, almost any part of the plant is capable of starting growth on its own account if the conditions are favourable. This characteristic can be turned to very good account by the horticulturist in the case of Gloxinias, the evergreen Begonias and Streptocarpi. In the case of all these plants, their propagation may be carried out with the greatest ease, simply by rooting the leaves of the different kinds. To this end, mature, well-developed leaves should be selected in the early summer, care being taken to see that each has a good piece of stalk attached. These should be spread out separately on a tray in a cool, dark place for twenty-four hours, an effort being made to keep the various kinds distinct. Now obtain some boxes or pans about 2 inches or 3 inches in depth, and fill these with some light sandy soil, the poorer the material the better. If the mould is very dry it should be watered through a fine rose.

The following day the leaves of the different plants may be taken, and each one dibbled out into the box or pan. The stalk should be embedded to the extent of about an inch. The leaves may be put fairly close together, although they should not touch one another. For the first few days place the pan in a shady position, and after this the leaves will do best if they can be fairly near to the glass. In the event of very scorching weather, even should the house be shaded, it is well to shelter the leaves under a piece of paper during the brightest hours of the day; in fact, everything possible should be done to prevent flagging at any time. In a few weeks the leaves will become stiff and upright, and it will not be long before other small leaves will push their way up from the base of the stalk. Quite soon each leaf that has come through will have developed into a sturdy little plant ready for removing to more roomy quarters.

In the case of the Gloxinias, a still more prolific mode of increase is by leaf propagation. To accomplish this, choose large, well-grown leaves from old plants. Turn the leaf upside down, and with a sharp penknife cut notches at frequent intervals in the thick ribs. The central vein on account of its size will carry the most, and they should be cut out deeply. Fill a pan with the same kind of soil as mentioned above, and, after well moistening the surface with water, spread the leaves on the top of the mould back-side downwards. In order to make certain that the leaf is in contact with the soil all over, it is necessary to pin it down at intervals. For this purpose the best things to use are ordinary hairpins. Shelter the leaves from hot sun and pay careful attention to watering, as the soil round the leaves must be kept constantly moist. The leaves may be left in this way for practically the whole of the summer, and it is inadvisable to attempt to remove them in any circumstances.

PROPAGATION BY THE LEAF—AN INTERESTING METHOD OF INCREASE.

It is probable that by the autumn signs of active growth will be apparent from some of the notches. In any case, when the leaf is finally taken up it will be found that at every point where an incision was made a little corm has put in an appearance, and these may be grown on to flowering plants during the next season. Quite often a fine corm will form on the stalk end of the leaf which is pinned, as will be seen to have been the case in the specimen shown in the above illustration. S. LEONARD BASTIN.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Tulips without roots (*J. B.*).—We have carefully examined your Proserpine Tulip bulbs and also the soil. In neither can we find anything in the way of animal life to account for the state of the sample. We note you ask us to help you "to find out the cause of them not rooting." As the soil is full of roots, it is clear that they have rooted pretty well, and what has happened is that something has been done to the pots or boxes which has caused the roots immediately under the bulb to decay. There is a fair quantity of rather sour peat (is it peat moss litter from the stable?) in the compost, and what we would suggest is that the soil has got too wet at the top, and continued in that state long enough to rot part of the roots, and so to give the appearance of the bulbs never having made any. It may be, too, that some stimulant has been applied which has not suited the Tulips, or that there was something in the peat which was deleterious, and which only took effect when water was given prior to bringing the bulbs into heat.

Planting hardy flower border (*Old Reader*).—A flower border 100 feet long and 12 feet wide should easily be made to look gay all the summer and autumn. If not done, first the ground should be well manured and trenched 2 feet in depth, or, failing the trenching, be deeply dug. To do this well everything in it should be lifted out first. But as you have fruit trees on the wall behind, the alley fronting those trees should be fully 3 feet wide, and any hardy flowers should be at least fully 4 feet from the trees. The background might well consist of such hardy plants as perennial Sunflowers, tall Michaelmas Daisies, Hollyhocks, Columbines, tall giant Daisies, Sweet Peas in clumps; Convolvulus major, Mina lobata, Canary Creeper and similar climbing annuals; with here and there decorative and Cactus Dahlias. Near the front should come blue Thistles, Erigerons, Pæonies, giant Poppies, Irises, Rudbeckia Newmanii, giant Daisy Princess Henry, dwarfer forms of Michaelmas Daisies, various Campanulas, especially persicifolia, the biennial Canterbury Bells, also Foxgloves, Sweet Williams, Snapdragons, Pentstemons, with, still facing these, a myriad of annuals, both hardy and tender, the former being sown in small rings or clumps thinly and back or front, according to height. The beauty of these and their time of endurance in flower rests largely with the quality of the soil and the plants being well thinned. Eschscholtzias, Candytufts, Clarkias and Godetias, all in great variety, with literally myriads of others, dwarf and tall, costing little for seed, can be had and sown, not only early in April, but for succession also a month later. Then, if sown in shallow pans or boxes under glass about the middle of April, numerous plants of Stocks, Asters, Zinnias, Salpiglossis, Petunias, Verbenas and Lobelias can soon be had which will remain long in flower. In this way a very brilliant border should be readily obtained.

Violas in beds (*Beginner*).—November-planted Violas should be in the first flush of beauty during May, June and July, and in a lesser degree subsequently, though it will depend upon the varieties, the treatment meted out to them and the class of soil in which they are growing. Where it is desired to have a late summer and autumn display of these, as well as a spring and early summer one, two plantings should be made, one in autumn and another in spring (early April). If you cannot do this, the next best thing will be to cut the plants over at the end of July, or later, if there is evidence of the flowering being continued for some time, mulch the plants around with rich soil, and by keeping them well watered promote a new growth quickly to ensure a late summer and autumn flowering. Frequently, where the soil is not too much drained or very light or sandy, this second flowering is fully equal to the first.

Information about Scabiouses (*Mrs. B.*).—There is no reference to Scabiouses in the issue of THE GARDEN to which you refer, but the best of the annual Scabiouses for garden purposes are the varieties of Scabiosa atropurpurea, which may be sown in March or early April for autumn bloom. These are exceedingly valuable for the garden and also for cutting, and it is probably these which you have had in mind. Of the perennial varieties, Scabiosa caucasica is the most frequently cultivated, but it does not flower so well in some gardens as the newer S. japonica. Both have pretty lilac flowers, and there is also a white variety of S. caucasica called alba. These are the best of the Scabiouses, but for general garden use there is none to equal the annual S. atropurpurea, mentioned above, and called the Sweet Scabious. It can be had from any seedsman in much variety of colour.

Borders for annuals (*Beginner*).—We think you cannot do better than plant pink-flowered Pentstemons, with yellow Tufted Pansies or Violas in the one border and crimson-flowered Antirrhinums and yellow or white Violas in the other; or, as the borders are so narrow and so much in sight, you might get the best results by planting two shades of Violas in each case. The former could be raised from seeds; the latter you could obtain cheaply as rooted cuttings. Among the more effective of low-growing annuals for massing, we would name Godetias, Chrysanthemum coronarium in variety, Eschscholtzias, Marigolds, Mignonette, Indian Pinks, Nasturtiums and Nemophila. You could also utilise the Calceolarias in conjunction with Godetias and the dwarf strains of Antirrhinums, all of which are singularly free-flowering. In the damp border facing north you cannot do better than plant Phloxes in variety, Michaelmas Daisies, Sunflowers, Chrysanthemum uliginosum, Erigeron speciosum, Globe Thistles, Red-hot Pokers, Flag Irises in great variety, Globe Flowers (Trollius), Montbretias and Campanulas. For the first season you might with advantage introduce a few of the taller-growing annuals, such as Lupines, Shirley Poppies, Calliopsis, Chinese Aster, Rocket Larkspur and others.

Six Chrysanthemums with large blooms for early October displays (*Larklands*).—Kathleen Thompson and Caprice du Printemps—the former a sport from the latter—are very excellent varieties, from which you should get good deep flowers some 5 inches to 6 inches in diameter under good cultivation. We can confidently recommend the following six varieties for your purpose: Mlle. Lucie Duveau, purest white; Murillo, light flesh pink; Le Pactole, bronzy red and yellow; Perle Chatillonaise, creamy white, shaded rosy peach; Market Red, metallic red; and Golden Queen of the Earlies, rich golden yellow. You do not say whether you want the varieties for decoration or for exhibition; we have, therefore, regarded them from the former point of view.

THE GREENHOUSE.

Oleander and other leaves for inspection (*A. M. C.*).—The leaves are badly infested with thrips, while the Oleander in addition has a quantity of scale on the undersides. The black substance on the upper surface of the Oleander leaves is the deposit of insects, and in all probability there are aphides or green fly on your plants as well. To clean the Oleander make a lather of warm water and soft soap and carefully sponge the leaves, both the upper and lower surfaces, taking care to remove every scale, these being mostly clustered on either side of the midrib. The Fuchsia leaves are in a terrible state with thrips, and your better way will be to pick off every leaf and burn it. If this is done new leaves will soon be pushed forth free of insect pests. Too dry an atmosphere, especially if the roots are dry as well, is the cause of thrips attacking a plant. An occasional vaporising with the XL All Vaporiser will keep the plants free from these pests.

Tulips not flowering well (*H. W.*).—There is nothing whatever wrong with the plants. All five are flowering bulbs and have made good roots. The leaves are perhaps rather small and they may have been forced just a little too much; that is all.

ROSE GARDEN.

Moss on stems of standard Roses (*Amateur*).—Anything of a parasitic nature on the stems of the standard Roses is not conducive to the welfare of the trees, and should certainly be removed. Make a solution of carbolic soap liquid by steeping half a bar of Lifebuoy Soap in three gallons of soft water. Take a scrubbing-brush, dip it into the liquid and scrub the stems vigorously, but not so as to injure the bark. You can repeat this again in about a week. A strong brine is used when fruit trees become infested with moss, but we rather hesitate to recommend this on the somewhat delicate bark of the Briar.

Manure for Roses (*Sinclair*).—Poultry and pigeon manure may be applied in light dressings for Roses, but it is not so safe to use as well-rotted stable manure. When used it should be sown thinly on the ground, lightly forked in and well watered. Stable manure, of course, is valuable both on account of its fertillsing qualities and for a mulch. Poultry manure is of no use for the latter purpose, and for feeding it should not be used frequently; a couple of dressings in the course of the year will, however, do no harm.

FRUIT GARDEN.

Muscat Vines gone wrong (*N. O. P.*).—We have seldom seen Vine foliage so badly infested with red spider, and so long as this pest is allowed to feed on the life tissues of the Vine, so long will the crop prove a failure. The first thing to do in order to bring back the Vines to health and fruitfulness will be to destroy the spider. The way to do this is to prune the Vines, immediately burning all the prunings and leaves. Then fumigate on two calm afternoons in succession with a strong solution of Richards's XL All Fumigator. These two applications, if the vinery is properly closed up so that the fumes cannot escape, will kill the spider. Then wash the vinery in every part with soft soap and water, being careful to brush into every hole and corner likely to afford protection to the insects, finishing by whitewashing the walls with hot lime-wash. Then rub off the rough outer bark of the Vine rods, and wash them with the same solution of soft soap as recommended for washing the vinery, adding, however, half a pint of flowers of sulphur, which should be dissolved in a gallon of the liquid. After this dig up carefully with a fork 3 inches of the surface soil of the border (presuming it is inside) and wheel it away, replacing to a depth of 4 inches with a top-dressing of loamy soil to which has been added a gallon of bone-meal to every barrow-load of soil. The Vine will emit new roots into this in the course of the spring and summer, resulting in a much more vigorous and healthy growth. The red spider will be sure to appear again early in the year. Be on the watch for the least trace of it, and nip it in the bud by spraying the affected leaves with soft soap and warm water, continuing to do so as long as traces of its appearance are apparent.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C

SWEET PEAS FOR GARDEN DECORATION.

Methods of Growing.

(First Prize Essay.)

AMONG all the beautiful annuals there are none that, in the hands of a careful and intelligent gardener, give greater satisfaction or make a more beautiful and varied decoration for the garden than Sweet Peas. They may be grown in various ways, and often used to cover unsightly objects, such as dead trees, &c., in clumps of separate varieties, on hurdles covered with 2-inch wire-netting, and in rows of separate or mixed varieties, according to the taste of the cultivator, and in each or all of these ways how beautiful they are and what a wealth of bloom and a delicious scent they give.

As a background to a herbaceous border, nothing could be more suitable than clumps or rows of this beautiful annual. To make a really good effect great care must be taken in the arrangement of colours, both in their proximity to each other and also to other plants; one mistake so often makes a whole failure. A careful gardener will always plan out his colours on paper before planting, and so make quite certain of no clashing to offend the sensitive eye.

Some people grow them actually in the herbaceous borders, dotted about in clumps; but this method is one which I do not advocate, as their height is so much out of proportion to that of the ordinary herbaceous plants, the difficulty of arrangement of colour is greatly magnified, and last, but by no means least, to keep them in flower one must be constantly treading on the border in all weathers to feed and cut off dead blooms, which is fatal to the surrounding herbaceous plants and also makes the border untidy.

As a covering for dead bushes or trees nothing can excel them, not even Roses, and those who have not seen an old dead tree quite untrimmed (a Holly for preference) covered with a rambling mass of Dorothy Eckford (white) and Queen Alexandra (scarlet) can have no idea of what a beautiful sight it is. When they are once started on an old tree like this they appear to revel in their liberty and ramble away, giving a wonderful display of colour and beauty.

Against a wall, with Hazel sticks (untrimmed) to support them, they look well, especially if there is a border of choice, dwarf-growing shrubs immediately in front of them. If on a south wall they will bloom some weeks earlier than those in the open ground; but care must be taken not to grow any of the high-coloured varieties, such as the scarlets, orange or deep pinks, in this aspect, as they would be scorched by the sun and lose their colour.

A summer arbour covered with several varieties of Sweet Peas always makes a fine display, but care must be taken to select colours which do not clash. Etta Dyke (white), Helen Lewis (orange), Clara Curtis (primrose), Frank Dolby (lavender) and Mrs. Hardcastle Sykes (light pink) would make a good effective combination, each variety being sown or planted by itself, no intermixing until they have naturally grown into each other towards the top of the arbour. Before sowing or planting the arbour must be covered with some large-meshed wire-netting for the tendrils to cling to; but this is little trouble or cost as compared with the result obtained.

Grown in 10-inch pots or tubs and placed on paths or terraces is an effective way of employing Sweet Peas, especially if each pot or tub contains only one variety; four plants in each are quite sufficient. This mode of culture requires great care. The soil must on no account ever be allowed to get dry, no seed-pods must be allowed to form and the plants will require a liberal supply of strong liquid manure from the time they commence to bloom.

Like all plants, Sweet Peas repay good cultivation. To have fine blooms it is essential to keep the plants growing, and this can only be done by constant attention during the summer with the water-can, the "soup tureen" (liquid manure) and the Dutch hoe. If these matters are attended to it is wonderful what a height the plants will grow. I have had them 14 feet high in my garden. I am only an amateur, and that in quite a small way, employing a jobbing gardener one day in the week to help in the rougher work.

The Cupid or dwarf varieties are often used for edgings to borders of annuals and also for summer bedding; but to my mind they are poor things at the best of times, and I have never yet seen them used with good effect.

As this must be confined to the growing of Sweet Peas for garden decoration, I fear a long explanation of the mode of culture may be considered rather wide of the mark, so I will only suggest a few of what I consider to be the most important rules for a successful cultivator to observe. 1. Sow in February, either in pots (for cold frames) or out of doors. 2. Never allow the soil to get dry. 3. Prepare the ground the plants are to occupy early in the previous autumn. 4. Do not give any stimulant until the plants have given their first bloom. 5. Never allow a seed-pod to form. 6. Be careful to watch for slugs at night. 7. Avoid all patent manures. 8. Feed liberally with liquid manure

when the first bloom is over. 9. In hot weather syringe overhead with rain water; this is more beneficial to the plants than any amount of water at the roots.

The number of varieties being now so large, and many varieties so much alike that none but an expert can distinguish between them, makes it no easy matter to pick and choose; but I shall in my list mention only those varieties which I consider most suitable for giving the best effect from a decorative point of view. White. — Etta Dyke (Spencer) and Dorothy Eckford. Scarlet.—Queen Alexandra and King Edward VII. Lavender.—Frank Dolby and Lady Grizel Hamilton. Violet.—A. J. Cook (Spencer). Primrose.—Clara Curtis and Dora Breadmore. Pink.—Mrs. Hardcastle Sykes and Countess Spencer. Orange.—Helen Lewis and Henry Eckford (?). Blush.—Mrs. Henry Bell and Evelyn Hemus. Maroon.—Prince of Asturias and Dudley Lees.

Queen Alexandra and Etta Dyke, Dorothy Eckford and Lady Grizel Hamilton, Frank Dolby and Clara Curtis or A. J. Cook and Etta Dyke make very good and effective combinations. Helen Lewis, Queen Alexandra, King Edward VII. and Henry Eckford, especially the latter, require to be grown in partial shade to obtain the true colour.

In planting out be sure and allow ample space between each individual plant or pot of plants as the case may be—9 inches is not too much between each plant, and 15 inches to 18 inches between each pot. More ill-health is caused by overcrowding than by anything else.

THOMAS ALDERSEY.

Meole Brace, Shrewsbury.

PRIZES FOR READERS.

JANUARY COMPETITION.—AWARDS.

IN this competition prizes were offered for the best essays on "The Best Methods of Growing Sweet Peas for Garden Decoration." The prizes are awarded as follows:

First prize of four guineas to Mr. Thomas Aldersey, Meole Brace, Shrewsbury.

Second prize of two guineas to Mr. W. Bentley, Field End, Eastcote, Middlesex.

Third prize of one guinea to Mr. Thomas Stevenson, Woburn Place Gardens, Addlestone.

Fourth prize of half-a-guinea to Mr. H. L. Sell, Kempton Villa, Luton.

The essays from the following are highly commended as being of a suggestive character: C. W. Caulfield, W. McDermott, D. Watson, Edwin Platt, G. W. Simmonds, Miss Carleton Williams, W. H. Morton, T. H. Bolton, W. H. Bolton, Mrs. Coates, E. Key, E. Henderson, H. Whitner, W. Bond, J. S. Dakers, G. Boyd, W. Latter, C. H. Chipman, Miss S. Randolph, W. Stewart, J. Gilchrist, A. J. Cobb and Mrs. J. H. Hooker.

This competition was an exceedingly popular one, and we have never before received so many essays. In the majority, however, the principal object, *i.e.*, original methods of growing Sweet Peas for garden decoration, was entirely ignored. Many gave most elaborate cultural details which were not asked for. The lists of varieties chosen were also poor in many instances, and in compiling these it would seem that essayists quite forgot that they were for garden decoration. Thus in one essay that was otherwise fairly good the variety Henry Eckford was considered by the writer to be the best variety for the purpose! Menie Christie, again, was selected by several to use in conjunction with other colours; but a more difficult variety to harmonise with others it would be impossible to select. The second-prize essay is very close to the first, and we hope to publish it shortly.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

*** *The dates given below are those supplied by the respective Secretaries.*

February 23.—Royal Horticultural Society. Exhibition of Flowers, Plants, &c., 1 p.m. to 6 p.m. Lecture at three o'clock, by Mr. Arthur W. Sutton, V.M.H., on "A Camping Tour through Syria to Petra." Royal Horticultural Hall, Vincent Square, Westminster.

Royal Horticultural Society in 1908.—The annual report of the above society is, as usual, of considerable interest to all lovers of the garden. It is pleasant to note that the finances of the society are in a most satisfactory condition, the investments now having reached the sum of £33,986. The income during the year was £7,868 more than the expenditure, and the letting of the hall gave a clear profit of £2,067 15s. 7d. Those who have other thoughts than of flower shows will regret that only £29 was expended during the whole year on the Lindley Library, a library that ought to be the most up-to-date in respect to horticultural works in the world. It is to be hoped that the council will realise this a most important matter. Nearly 11,000 Fellows and friends visited the Society's gardens at Wisley during the year, notwithstanding the fact that they are not very easy of access, and this, we think, speaks well for horticulture in general.

National Auricula Society.—Mr. R. Holding, the secretary and treasurer of the Midland section of the above society, informs us that the date of their show has been altered to April 28 and 29, when it will be held in the Botanical Gardens, Edgbaston.

Liverpool Horticultural Association.—The annual meeting of this association was held on the 31st ult. at the Common Hall, Hackins Hey, when Mr. T. Foster presided over a fair attendance. The statement of accounts proved highly satisfactory, the increase during the year being £117 17s. 7d. The receipts at the autumn show were £135 14s., of which £110 1s. was for admission. Subscriptions received amounted to £250 15s. 6d., a decrease of about £20. It was decided after some discussion not to hold a spring show; but the committee would consider the desirability of holding an exhibition in which cut Roses and Sweet Peas would be the main features. Mr. Harold Sadler, 31, North John Street, Liverpool, was re-elected secretary.

The Veitch Memorial Trust.—At a recent meeting of the Veitch Memorial Trustees it was decided to offer gold medals to the Rev. W. Wilks, secretary of the Royal Horticultural Society, and Mr. W. Marshall, chairman of the floral committee, for their valuable services rendered to horticulture. The following prizes of a medal and £5 each were also offered: To the Royal Horticultural Society at their Temple Show for the best group of Orchids not exceeding 75 feet, staged by an amateur who has never taken a medal at either the Temple or Holland House Flower Shows; to the Cardiff and County Horticultural Society for the best amateur exhibit of twelve distinct varieties of hardy-flowering shrubs (cut); and to the National Rose Society for competition at their exhibition in July next. At the same meeting, Mr. J. Douglas of Great Bookham was elected a trustee in the place of the late Mr. G. Nicholson.

Scottish Horticultural Association.—The monthly meeting of this association was held at 5, St. Andrew Square, Edinburgh, on the evening of the 2nd inst. There was a large attendance of members, presided over by Mr. James Whytock, Dalkeith Palace Gardens. A number of photographs of flowers in natural colours were shown by Mr. E. L. Brown, who gave an interesting reference to the value of this colour-process photography. Among other exhibits was Moschosma riparium, sent by Mr. W. Staward, Belford Hall, Northumberland, showing this fine old winter-flowering plant in splendid condition. The leading feature of the evening was the presidential address delivered by Mr. James Whytock, in which he dealt with the changes affecting the professional gardener and other questions of horticultural interest. Among other features of a capital and suggestive address was a reference to the Edinburgh flower shows, which did not seem to be so generally appreciated as at one time, so that some changes would appear to be desirable to ensure a return of their popularity. For this Mr. Whytock suggested the introduction of some other popular attractions. He was heartily thanked for his address.

Experiments with Potato sets.—For several years past the agricultural department of the education committee of the Lancashire County Council have been conducting experiments with Potato sets, with the object of proving the relative merits of Scottish, Irish and Southern sets, and also of sprouted and unsprouted tubers or those planted direct from bags. The results of these experiments are plainly set forth in an interesting bulletin prepared by Mr. Edward Porter, B.Sc., F.A.C., and Mr. R. C. Gaut, B.Sc., N.D.A. It was proved that sets brought from a northern latitude to a southern give better results than those transferred from a southern to a northern; but this, of course, has been generally known for some time. The yield from sprouted Irish-grown seed is, on the average, below that from Scottish seed similarly treated. Seed Potatoes from localities within the county did not give such good results as Scottish and Irish tubers, and sets obtained early in the year and sprouted before being planted gave a larger crop than those obtained later and planted direct from the bags. It is pointed out that the extra yield thus obtained well repays the trouble of sprouting.

Mr. R. W. Wallace. — Councillor Robert Whistler Wallace is a son of the late Dr. Alexander Wallace of Colchester, and is distinguished as a native, *inter alia*, by his particularly successful efforts to maintain the borough's horticultural repute by adding to its well-known fame for Roses a renown hardly less world-wide for Lilies and other flowers, which he has cultivated to an extraordinary degree of perfection, and the products of his skilled culture have won innumerable prizes at the principal exhibitions of the kingdom. Notwithstanding the assiduity with which he has pursued his own business, Councillor Wallace has found time to devote much useful service to his town. As representative of the North Ward in the Town Council, he has done an immense amount of good work, and his appeal to the electors for re-election next November is not likely to be made in vain. In debate he is a fearless speaker and often a caustic critic. A staunch Conservative, he is ever active and alert in the cause of his party, and is the official whip of the Conservatives in the Town Council. He is also chairman of the North Ward of the Colchester Conservative and Unionist Association, a post for which no more suitable man could possibly be found. He married Miss Attwood, daughter of the late Mr. G. E. Attwood of Colchester.—*The Colchester Conservative and Unionist Monthly Magazine.*

CORRESPONDENCE.

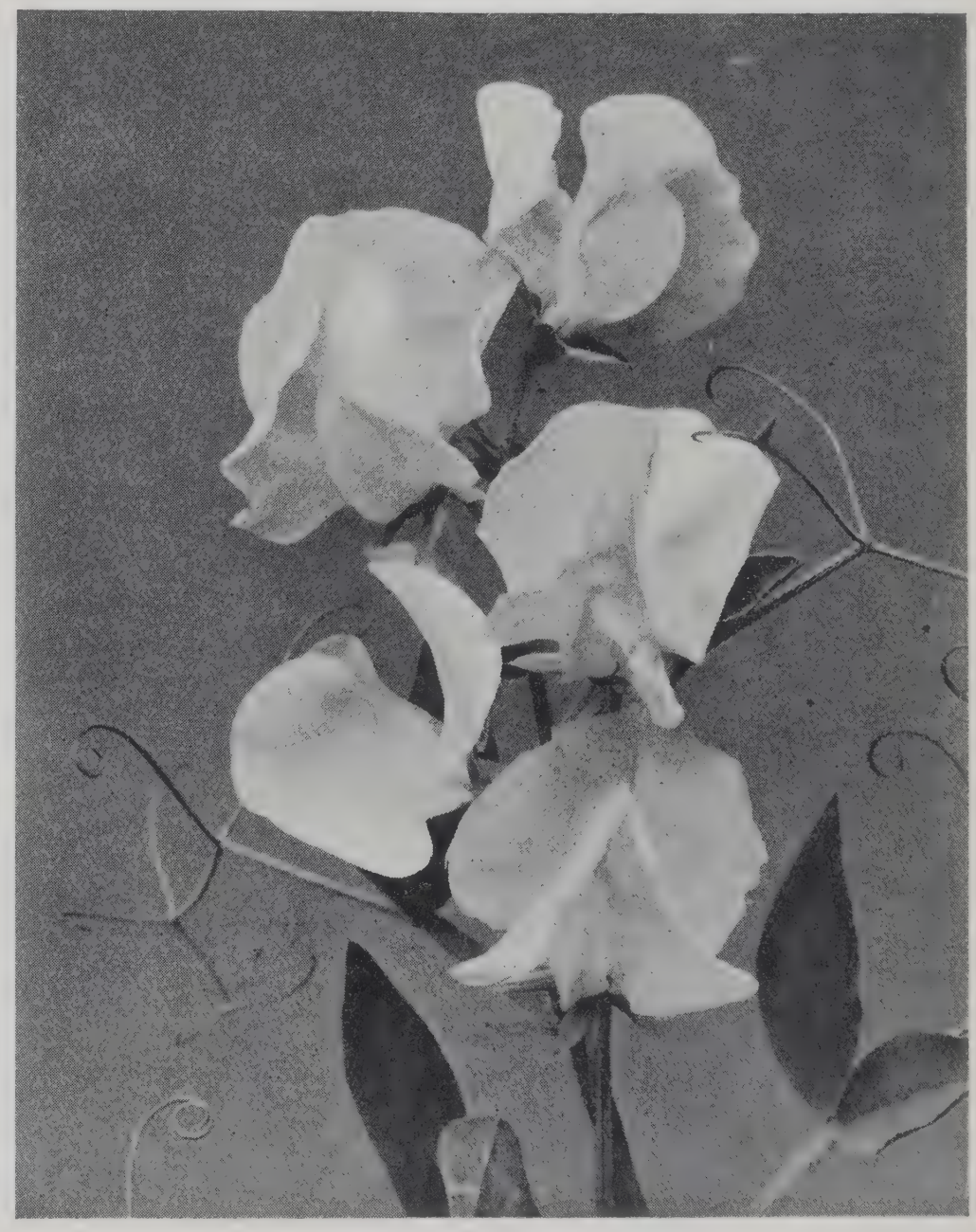
(The Editor is not responsible for the opinions expressed by correspondents.)

A note about Sweet Peas.—We shall be glad if you will publish the following: The name Mrs. J. Wilcot given to the Spencer American Pea mentioned on page 36 of "The Sweet Pea Annual for 1909" should be Mrs. Wilcox, and the variety named there as Grace

Wilson, which we hope to send out next year, has been renamed Mrs. B. Gilbert.—GILBERT AND SON, *Anemone Nurseries, Dyke, Bourne, Lincs.*

Perpetual-flowering Carnations.—I am very much indebted to Mr. Allwood for his note in THE GARDEN of January 23, and owe readers an apology for not having been more explicit in what I wrote about nomenclature. I intended to say that all this race of Carnations should be called "Perpetual-flowering," and that then the more fringed and crowded petalled forms (such as Mrs. Lawson, &c.) might be grouped together and classified as "American," while for the less crowded and altogether flatter petalled kinds we might use the term "British," each name having a peculiar appropriateness with regard to the history of the flower.—JOSEPH JACOB.

The classification of perpetual-flowering Roses.—I have been expecting to see in your columns before this some further notice taken of the interesting points raised in an article with the above heading that appeared in THE GARDEN of the 9th ult., and would have wished that someone more intimately connected with exhibition Roses had favoured you with his views, as the matter is one that concerns exhibitors only. I take it, it is a matter of little or no consequence to the non-exhibitor whether a Rose is called a Tea, a Hybrid Tea or a Hybrid Perpetual, and even whether being so called it is correctly labelled. Approaching the matter, then, entirely from an exhibitor's point of view, Mr. Pemberton commences with the startling statement that "the old distinctions are rapidly becoming obliterated, and that though they exist on paper and in theory, they are non-existent in practice." The old divisions, we are informed, were three—the Hybrid Perpetual, the Tea and the Bourbon. They are all still with us, but the third has ceased to be regarded as a distinct exhibition type, and has become merged in the first; or rather, its latter-day descendants, where they are sufficiently worthy, are now shown as Hybrid Perpetuals. So also, in practice, is a fourth class, which apparently is causing all the trouble, namely, the Hybrid Teas; so that, broadly speaking, the divisions among present-day exhibition Roses are two—the Hybrid Perpetual and the Tea. Now what is it that governs this classification? I submit that it is the *ipse dixit* of the raiser, confirmed by the body that looks after the general welfare of the exhibition Rose, namely, the National Rose Society. For the purposes of exhibition it is really immaterial whether a Rose is "correctly" classified or not, although it is desirable (and with very few exceptions, which can be counted on the fingers of one's hands, exhibition Roses are, as a matter of fact, correctly classified). Once the National Rose Society puts a Rose into one of the divisions, there it remains and must be shown accordingly. Where, then, is the difficulty? The whole matter is artificial if you like, but if it is laid down that such a Rose is a Hybrid Perpetual and another a Tea, there the difficulty ends so far as the exhibitor is concerned; he must obey or be disqualified. I quite agree that in all probability Frau Karl Druschki and Hugh Dickson are Hybrid Teas; so also is Mrs. Edward Mawley. The Cochets are nearer the border line, and I am inclined to think they are in their right class; but so long as the National Rose Society says these Roses are Hybrid Perpetuals and those are Teas, that is all that is necessary from the point of view of the exhibitor. Mr. Pemberton's other instance, Harry Kirk, is followed by a query. He states that this Rose has always been described by the raiser as a Tea, that the National Rose Society so describes it, and then goes on to say that several leading trade growers (who surely ought to know better) have placed it among the Hybrid Teas. His query is: "Would an exhibit of twelve exhibition Teas be disqualified if it contained a flower of Harry Kirk?" Has he any doubt as to the correct answer to his own question? I am sure he has not. It is possible that the raiser is sometimes in doubt as to the classification of a seedling, but he must label it, and he does so to the best of his ability, the National Rose Society adjudicates, and the matter is settled. As for further trouble ahead, I see no reason why it should not be met in the same way. Mr. Pemberton says: "Raisers . . . are striving after more yellow Roses; the yellow in a Rose is derived from one of the original progenitors of the Tea-scented Rose, and this colour in a Rose indicates its affinity." Is Mr. Pemberton quite sure? I thought our new yellow Roses were mostly coming through another source—Rosa lutea and its hybrids, Soleil d'Or, Melanie Soupert, and the Lyon Rose to continue the line—and I venture to think that even raisers with an eye to the American market would hesitate to label a yellow Rose a Hybrid Tea if they thought or knew it to be a Tea. How about Harry Kirk in this connexion? Surely Messrs. Alex. Dickson and Sons have an eye to the American market, and surely Harry Kirk goes to America, Tea though it be. Granted that there may be some confusion as to the "real" class to which a Rose belongs, my point is: whether a Rose is a Hybrid Tea or a Tea is really, after all, immaterial so long as it is known as one or the other. Granted, even further, that there is a confusion, it does not follow that it is desirable to do away with existing divisions, classes — call them what you may. Neither can I agree that the suggestions of the writer of the article, entitled as they are to the fullest consideration, will remedy the confusion. Surely the last state will be worse than the first; for what is suggested? As the existing classes are all so much alike (do you really mean it, Mr. Pemberton?), they are in future to become one, and for the purposes of exhibition are to be known as specimen Roses. I find no fault with the name; it will serve. The rest are to be divided into (2) decorative Roses, (3) garden Roses and (4) bedding Roses. I admit the terms Hybrid Perpetuals, Hybrid Teas and Teas are puzzling to the novice; but they are clearness personified compared with decorative, garden and bedding as applied to three distinct groups. The terms are practically synonymous, and I do not envy the poor experts that will have to decide between a decorative, a garden and a bedding Rose. No, our present system is not perfect; far from it. Of necessity it is artificial, and therefore must be more or less imperfect; but it can be governed, and is, I think, fairly governed, by laws that are easily understood and recognised. I cannot conceive that any real distinction lies in the three suggested divisions. To catalogue one Rose as a decorative Rose and to say that it is not a garden or a bedding sort is surely splitting hairs with a vengeance, and is turning the present comparatively easy task into an extremely difficult, if not impossible, one. Our schedules are capable of great improvement—that is admitted; but I think it lies in the direction of narrowing the existing classes, not in widening them; classes for a number of an individual Rose rather than for a colour, so that White Maman Cochet is not competing against Mildred Grant or Frau Karl Druschki in a class for twelve white Roses. But I will be wise and not attempt to reconstruct a show schedule; that way lies ——. Still, the making of schedules is very much in the air just now, and therefore Mr. Pemberton could not have chosen a more fitting time to raise the whole question; but I cannot think a solution is to be looked for in the direction he points out. Personally, I am of opinion that the basis of the present system must remain, and that what is required is "mending, not ending," to use a phrase that is usually applied to something that is prominent just now in quite another connexion.—HERBERT E. MOLYNEUX, *Purley.*



SWEET PEA QUEEN OF SPAIN.

SWEET PEA QUEEN OF SPAIN.

THIS charming Sweet Pea was introduced by Mr. Henry Eckford in 1907 and has become exceedingly popular, especially as a variety for garden decoration. It is of vigorous habit and has good stout stems, the flowers being usually produced in threes and splendidly placed on the stem. The blooms are of medium size, and the colour may be described as a sort of soft pink with an ivory-like sheen. In a bunch it is particularly handsome and should make a good market variety.

THE KITCHEN GARDEN.

THE NEW CULINARY PEA REARGUARD.

IN this introduction it is now within the reach of all—amateurs, gardeners and exhibitors alike—to obtain a Pea which in its own section stands head and shoulders above anything yet introduced. Where it has been seen growing in trials of every other variety in commerce, even including the most popular varieties, the claims of Rearguard as the finest late Pea for all purposes are apparent to a novice, and connoisseurs who have already had the opportunity of seeing this Pea growing pronounce without hesitation that, unlike numerous novelties that are continually being sent out, Rearguard is all that the raisers claim for it. To sufficiently grasp the importance of this judgment it is necessary to refer to the actual description sent out with the Pea, and this carries full weight when one has it on the word of experts that there is no exaggeration. On turning to the reference we find that Rearguard is introduced as "The best latest, hardiest and heaviest-cropping Pea extant. The plant is a most robust grower, darker in colour and stouter in stem than Gladstone, same height, *i.e.*, 4 feet to 4½ feet, very branching, producing fully 80 per cent. of its pods in pairs from very low down the haulm right to the top, bearing at every joint. The pods are quite one-third larger than the best type of Gladstone, and are closely packed with from nine to twelve rich green, large, deliciously-flavoured Peas."

Commenting first upon its hardiness, unlike many recent large-podded introductions Rearguard can be sown at any time during the sowing season. This has been proved up to the hilt by the fact that, of all seasons, last season it was sown as early as the middle of February in an open field, and also as late as the end of May, besides at various times in the interlude, every sowing proving a complete success in its result.

As to its cropping propensities, the description rightly draws particular attention to the fact that it bears from the greater part of the entire length of its haulm, a feature which in itself is of distinctive merit and will commend itself to those who have grown and been disappointed in some of the large-podded sorts which often bear but two or three pods right at the top of the haulm. Were it not such a cropper as is claimed for it, Rearguard would have been put on the market, as was originally intended, at the restricted price of 1d. per seed, the phenomenal crop produced being alone responsible for the very liberal packet which is now to be obtained for 2s. from any up-to-date seedsman.

Of the numerous points of merit in which Rearguard excels, so far only its hardiness and productiveness have been dwelt on. We now come to the point which most chiefly concerns the exhibitor, viz., size of pods, combined with the manner in which they are filled. The comparison made in the size of pod between Rearguard and Gladstone was a happy inspiration on the raiser's part for the purpose of conveying a true idea of Rearguard's actual size, for, of course, every grower and exhibitor must be familiar with Gladstone.

It may also be of interest to exhibitors to hear that, although it was then unnamed and not yet in commerce, Rearguard has already (by way of rehearsal, shall we say?) appeared upon the exhibition stage, whereon it is destined to play a leading part in the coming and subsequent seasons. Notwithstanding its having to compete with an excellent long-podded variety, Rearguard easily carried off first honours on each of the several occasions it was shown. The secret of its success lies in the fact that when opened the pods are found to be packed with grand Peas from end to end, and with an entire absence of that puffiness which is caused by those objectionable blank spaces which, unfortunately, are a predominant and retrograde feature in many otherwise excellent sorts. In Rearguard twelve Peas may often be found in a pod, while it is quite an unusual thing to find any well-developed pod of this variety having less than ten Peas. For what other Pea could so much be claimed?

In further recommendation, if such be wanted, it is only necessary to state that the raisers of this grand Pea are Messrs. A. Dickson and Sons, Limited, the well-known rosarians, a firm who, as new Pea raisers, can claim that they have never brought out a new Pea that was not of sterling merit in addition to being distinct. To summarise the results of their work in this direction, the list of their introductions is complete in Royal Salute, The Pilot and Rearguard, all of which have been obtained by crossing and years of careful selection.

There can be little doubt that if Messrs. Dickson cared to publish the exact parentage and history of Rearguard it would alone constitute an interesting article, as to obtain the success achieved some recrossing has been involved; but when one reflects upon the unusual hardiness of the variety compared with other late varieties, it would be fairly safe to assume that Rearguard may have some Pilot blood in it, but from whence it inherits its monstrous pod it would be mere guesswork to hazard an opinion.

H. K.

MEMBERS OF THE NATIONAL SWEET PEA SOCIETY INSPECTING THE CROPS AT MESSRS. HURST AND SONS' TRIAL GROUNDS, KELVEDON.

NATIONAL SWEET PEA SOCIETY'S OUTINGS IN 1908.

ONE of the most interesting and enjoyable features of the National Sweet Pea Society is provided by the outings arranged annually for the members, usually to some place where Sweet Peas are largely grown. During the past year the members visited the society's trials at Reading, and also the trials of Messrs. Hurst and Sons at Kelvedon and Messrs. Dobbie and Co. at Mark's Tey. At all the places a most enjoyable time was spent, notwithstanding the fact that the day chosen for the Reading visit was a wet one. Our illustrations depict some of the members among the Sweet Peas in Messrs. Hurst and Sons' trials and the members grouped on the lawn in front of Mr. N. N. Sherwood's charming house at Prested Hall, Feering, Essex.

THE FRUIT GARDEN.

THE DESTRUCTION OF INSECT PESTS ON FRUIT TREES.

NOW that the cultivation of fruit has become so much of a commercial enterprise in this country, it is only natural to find growers more anxious than ever to discover the best means of combating and exterminating the many injurious insect pests which attack fruit trees of various kinds, and by their depredations cause no small loss to the cultivator. The tenth report of the Woburn Experimental Fruit Farm, which has just been published, is packed with information on the subject, and its interest is only exceeded by its value. Never, we think, has his Grace the Duke of Bedford, aided by Mr. Spencer Pickering, given to the fruit-growing community information of greater value, and this is saying much.

Although lack of space deters us from dealing exhaustively with the report, we give here a few of the results of the various experiments conducted at the Fruit Farm during the past year, and to those who desire fuller details we commend the report. In treating nursery stock (Apples) for woolly aphis or American blight, fumigating with cyanide of potassium, and immersing, or partly immersing, the trees in various forms of petroleum, Woburn Wash and hot water were tried, the latter proving the most satisfactory in every way, and the fumigating the least. Not only is the hot-water treatment quite safe, but it effects a complete clearance of the pest. Two experiments with this were made, one consisting of immersing the trees in water maintained at a temperature of 125° for five minutes, and in the other the trees were submerged in water maintained at 115° for ten minutes. The last-named proved the most satisfactory, and is the method that should be adopted in dealing with small nursery stock. As pointed out in the report, there would be a difficulty in applying hot water to orchard trees, but undoubtedly it is the most efficacious, as it destroys eggs as well as insects. The spraying of trees in leaf for the destruction of woolly aphis

with various forms of petroleum has, so far, not proved very satisfactory; true, the pests have been to a large extent killed, but the trees have also suffered considerably, and the adoption of this treatment is not recommended except in very extreme cases, where drastic measures are absolutely necessary; then oils of intermediate volatility should be used.

The experiments made in spraying for the destruction of the Apple sucker (Psylla) are of a most interesting character, and demonstrate fully the futility of using either solutions of common salt or lime and salt, which were thought a few years ago to be efficacious. In addition to these solutions, Woburn Wash, the same plus salt, carbolic acid 1 per cent. and nicotine solutions of various strengths were used. With Woburn Wash, and the same plus salt, 5 per cent. only were killed, and the carbolic acid was totally

MEMBERS OF THE NATIONAL SWEET PEA SOCIETY ON MR. N. N. SHERWOOD'S LAWN, PRESTED HALL, ESSEX.

neffective; the Woburn Wash solutions also corched the foliage badly. Of the nicotine solutions, the one containing 0·15 of nicotine was most ffective, that with 0·75 of nicotine present coming ext. It was also proved that moderate rain alling soon after the spraying has little ultimate ffect on the results, the benefit only being delayed or a time. Spraying was performed on May 7, May 17 and May 26, a different set of trees being reated each time, and the results were practically he same. The spraying with lime and salt was arried out on February 26. It is only fair to dd that the authorities at Woburn have never laimed that the Woburn Wash was effective for Psylla. It is pointed out that purchasers of icotine should insist on having its strength uaranteed, and also that the treatment of Psylla y this substance is rather expensive.

Laboratory and field experiments were made vith various substances to ascertain their effect n the caterpillars of the common vapourer moth, mall ermine moth and the Gooseberry and Currant sawfly, and field experiments on the nealy Plum aphis. The mixtures used were 1) a 1·5 per cent. emulsion made with copper ulphate, lime water, solar distillate (a form of araffin or petroleum) and water; (2) a similar mulsion made with iron sulphate instead of opper; (3) a 0·15 per cent. solution of lead rsenate; (4) a 0·75 per cent. solution of nicotine; 5) lead arsenate and nicotine mixed, 0·15 per ent. of the former and 0·75 per cent. of the tter. In the laboratory experiments the copper ulphate emulsion proved the most effective, the ercentage of mortality in each instance being 0. No. 4, the nicotine solution, came next, 0 per cent. of the vapourer and ermine moth aterpillars being killed and 75 per cent. of those the sawfly. In the case of the vapourer and sawfly caterpillars, however, it was much slower in causing death. The arsenate and nicotine mixed came next, 80, 100 and 86 per cent. of the vapourer, ermine and sawfly caterpillars being killed respectively.

In the field experiments those conducted with the vapourer moth caterpillars were not complete, but were sufficient, however, to prove that the copper and iron sulphate emulsions were absolutely efficacious. With the ermine moth caterpillar nicotine solution appeared practically useless, but used in conjunction with arsenate it proved of value. The iron sulphate emulsion, however, is apparently the most effective of all. Unfortunately, any paraffin emulsion cannot be applied while the trees are in bloom, but where they have been treated for both Psylla and this caterpillar it is advised that the spraying be done just after the flowers have faded, using the emulsion with 0·75 per cent. of nicotine mixed with it. It would be more effective to spray twice, once with the nicotine solution for the Psylla, following this later with the emulsion for the caterpillar; but this would prove too expensive for general practice.

The field experiments in connexion with the caterpillars of the Gooseberry and Currant sawfly were carried out to ascertain whether paraffin emulsion could be effectively used instead of lead arsenate. The iron sulphate emulsion referred to above was used on one set of bushes and a lead arsenate solution on the other. Both proved equally effective, but the emulsion acted the quicker of the two. A point worthy of notice here is that although the foliage was slightly stained by the iron but not injured, the berries were scarcely affected at all, and were gathered and sold at current rates within two or three days of the spraying. Hitherto the great objection to the use of lead arsenate has been its poisonous character, and growers will, we think, welcome a safe and effective substitute.

The iron emulsion was tried and found most effective on the Apple aphis in 1907, and last year it was tried on mealy Plum aphis with equally good results. In addition to killing the insects it also effectually cleansed the foliage of dirt caused by them. These experiments are carried out with the greatest possible care, and last summer we had the pleasure of inspecting some of the trees that had been dealt with.

The report can be obtained from the Manager, Woburn Fruit Farm, Ridgmont, Beds, post free 1s. 1½d., or may be ordered through a bookseller, the publishers being the Amalgamated Press, Limited, Carmelite Street, London, E.C.

SWEET PEA CHAT.

SOWING SEEDS IN POTS.—Taking all things into consideration, there is no better time, after the turn of the year, for sowing seeds in pots than the second half of February, and there is no doubt whatever that thousands (one might almost write millions) of seeds will then be put in. Some will sow their seeds in 3-inch pots and others will use those 6 inches in diameter; others, again, will pin their faith upon shallow boxes, while another school will advocate deep boxes for the purpose. Then we shall find growers who affirm that a greenhouse is an ideal place after sowing, while a second set will declare that there is no place equal to a cold frame. Amid such a diversity of counsel the beginner is apt to become rather bewildered, and the best advice that can be given is to use pots according to his convenience. If he has not got a greenhouse to put them in, a frame is suitable. It is not so much a question of size of pot or particular position as it is of subsequent personal attention.

THE SOIL.—The best soil consists of equal parts of good loam and sweet leaf-mould, with sufficient sharp sand to keep the compost quite porous and open. But supposing a grower to be so situated that he cannot command either leaf-mould or loam, then take any ordinary soil, adding rather more sand and paying especial care to the drainage. Whatever is chosen in the way of soil should be moist, and if it can be prepared ten days or so before actual use so much the better. It is the custom of some growers to add a little bone-meal or other fertiliser to the mixture for the seed-pots; but this is unnecessary, for the simple reason that it is difficult to know where to stop, and it is so extremely easy to do harm rather than good. It is indisputable that young seedlings will find an ample supply of food in plain loam and leaf-mould, and any endeavour to encourage progress with special foods is far more likely to do harm than good.

THE POTS OR BOXES.—Six-inch pots are preferable to either those of smaller size or boxes. With the latter the work of transplantion without doing substantial injury to the roots is most difficult, while if small pots are used the roots may become matted hard round the sides of the ball before it is either necessary or wise to carry out the permanent planting. Of course, if the plants are potted on into 6-inch pots the latter trouble is not likely to arise, for these will provide the indispensable depth. In any case, proper provision must be made for drainage by placing one large crock hollow side downwards above the hole and a few smaller ones over that, finally covering with a little moss or other material that will prevent the fine particles of soil silting down and blocking the outlet. If small pots are used one seed only must be placed in each, while if larger ones are relied upon five seeds should find accommodation in a 6-inch pot; if boxes are utilised the seeds should be set 4 inches asunder, those with white skins being put in sand whether pots or boxes are used.

AFTER SOWING.—Equally satisfactory results will accrue from placing the pots in either a greenhouse or a frame, provided that the soil is kept moderately moist at all times and that in the latter case the pots are kept well to the light, especially, of course, immediately after germination. No attempt must be made to force the plants in heat, as this always leads to disaster. Grow the seedlings so that the growth

is strong and so that they will not materially feel the different conditions when they have to be put out of doors in April. If the receptacles are placed in frames, one of the chief sources of worry will be mice, and the best thing is to put a square of glass on the rim of each pot; this causes a little trouble, but it is more reliable than either trapping or poison. Both of the latter expedients can also be had recourse to if it is considered necessary. SPENCER.

SWEET PEAS IN A POOR SANDY SOIL.

THE district in which I am situated is, in many ways, a trying one for the horticulturist. It is near the sea, high winds prevail, a very wet winter is the rule and the soil is poor. When I entered into possession of my garden I had only to dig down 15 inches to yellow sand. In the face of such difficulties, one can only learn from experience, and the constant care and thought necessary ensure a large measure of success when once suitable subjects have been found. The following treatment of our most beautiful annual has yielded excellent results with me:

Preparing the Ground.—During September procure a supply of good stable manure and stack it in alternate layers of about 4 inches deep with fallen leaves. As soon as the ground is cleared (not later than October) mark off a piece 2 feet 6 inches broad and as long as required. Dig it over, working in some soil fumigant, such as Vaporite. Towards the end of December, in favourable weather remove the top layer of soil to a depth of 9 inches to 12 inches, and dig over the subsoil a good spade deep, incorporating a generous measure of the leaf and manure mixture. Allow this to remain rough for three weeks, after which the top layer should be returned to its original position. Before the end of January hoe in bone-meal in the proportion of 2oz. to the square yard.

Sowing.—It is best to sow in pots, but not too early. By sowing during the second week in February we can get flowers in June, and, with proper attention, they are good for cutting until October. Sowing earlier than this means that the young plants are too far advanced before the weather conditions permit of planting out. Use good potting soil and sow five seeds half an inch deep in a 4-inch pot. Label the pots and place them in a cold frame or near the glass in a cool greenhouse. When the young plants are about 3 inches high, place small twigs among them to give support as soon as they require it. Towards the end of March begin to harden off, and plant out as soon as possible after the middle of April.

Planting Out.—Early in April, down the centre of the prepared ground make a shallow trench 12 inches wide and 4 inches deep. Water this with a solution of nitrate of soda, half an ounce to the gallon and one gallon to every 3 yards of length. When ready to plant out, place the pots at points 16 inches apart all down the row. Turn out the ball of earth whole and plant with as little disturbance of the roots as possible. When the planting is finished the 4-inch trench should remain; this affords a certain shelter to the young plants, and later on is a great convenience for watering and applying liquid manure.

Staking.—As soon as possible now, place 2-feet branches of Hazel round each clump. When the Peas get to the top of the Hazel branches drive in 8-feet stakes in pairs, one stake on each side of the row at intervals of 4 feet; join these up with tarred sewing twine as the plants grow. Commence with the lengths of twine about 4 inches apart and gradually increase to 8 inches until the top of the stakes is reached. This makes an excellent method of support, giving the plants more freedom and being less unsightly than any I know. Galvanised wire-netting is much recommended, but with it I find that the tendrils are very apt to wither and break away. This, I imagine, is caused by the extremes of temperature to which the wire is subjected.

Watering and Manuring.—After the warm weather has set in, put into the trench 2 inches of an equal part mixture of old manure and loam. This leaves 2 inches still for watering. Watering should, however, be resorted to as little as possible, and when it is necessary fill the trench completely, allow it to soak in and fill again. Should hot weather set in, early flowering may commence too soon; this means dwarfed plants and short flower-stems. I make a practice of removing buds until the plants have reached about 3½ feet in height. When the buds begin to show colour, commence to supply weak liquid manure; nitrate of soda alternated with guano gives good results. Use the nitrate of soda at half an ounce to the gallon and the guano at 2oz. to the gallon; give an application once a week when the ground is wet. Cut freely, persistently remove fading flowers, thin the shoots where there is overcrowding, and a long season of splendid blooms will result. A word as to varieties. Among the whites Dorothy Eckford is still the best. Nora Unwin and Etta Dyke are beautiful flowers; but my experience with Nora Unwin is that it does not stand the weather so well as Dorothy Eckford. King Edward is absolutely sun-proof, but the variety Queen Alexandra fades a little. Henry Eckford is useless here; Helen Lewis is much better. Countess Spencer, John Ingman, Sybil Eckford, Black Knight, Lady Grizel Hamilton, Mrs. Walter Wright, Jessie Cuthbertson, Helen Pierce, Lord Nelson, Dorothy Eckford, King Edward and Helen Lewis make a good dozen. The Marquis, Menie Christie, Prince Olaf, St. George and James Grieve are very good among 1908 varieties.

Ayrshire, N.B. P. T.

CUPID SWEET PEAS GROWING IN AN OLD BARREL IN A SCOTTISH GARDEN.

GROWING CUPID SWEET PEAS IN BARRELS.

THE illustration shows Cupid Sweet Peas in a barrel and may be of interest to some readers. Standing in the centre of cross walks the effect is hard to beat. Seeds should be sown singly in small pots in spring and the plants transferred to the holes in the barrel from inside when large enough. The soil used must be of a rich nature and made quite firm, otherwise it will subside and draw the plants from the holes. Keep rather moist and pick off seed-pods as soon as they appear. Water with weak liquid manure as the soil becomes exhausted.

Ethie Castle. NORTHESK.

COLOURED PLATE.

PLATE 1367.

THREE POPULAR SWEET PEAS.

IT is safe to assert that the three Sweet Peas depicted in the coloured plate presented with this issue are among the most popular of the varieties now in general cultivation, and each has something specially in its favour. In Frank Dolby we have one of the best lavenders obtainable, and although, like all varieties of this colour, it is not absolutely fixed, a large percentage usually come true, at least so far as colour is concerned; but although it is reputedly a plain standard variety, it is not unusual to get flowers that are slightly waved.

Nora Unwin is too well known to need much to be said about it here. It is one of the Unwin class, which differ somewhat from the Countess Spencer type in shape and are not so liable to sport. The flowers are of splendid substance and are usually produced in threes and fours. As a decorative variety for the garden this Sweet Pea is first class, the plants being very robust and free and the foliage strong and healthy. It is also splendid for exhibition purposes.

King Edward VII. will long hold its position as the best crimson unwaved variety. The flowers are large and of grand substance, the standard being slightly hooded. It is one of the most robust varieties in cultivation, and always has long, stout flower-stems. In addition it is remarkably free-flowering, and is just the Sweet Pea for an amateur to grow. It is quite fixed, which is no small point in its favour. Those who like this Sweet Pea, and there are few who do not, will probably welcome the waved form of it which is on the market this year under the name of The King. It is rather brighter in colour than the plain form, the flowers being large and of good substance. Unfortunately, however, they burn a little in very bright sunshine.

SWEET PEA CROSS-FERTILISING REMINISCENCES.

THE artificial cross-fertilisation of the Sweet Pea is a simple operation, and the raising of new varieties is interesting and fascinating work; but the subsequent sowing and selecting, and, finally, the fixing entail considerable labour and patience, as well as a large extent of ground on which to grow the seedlings. A knowledge of Mendel's law is also essential in addition to careful selection and roguing, and the seed of individual plants must be kept separate in order to find out which plants will prove true from the time of their first appearance.

The earlier in the season cross-fertilisation is effected the better, as there is then more time for the pods to form and the seed to ripen, and dull but not wet weather should be chosen for the operation if possible; in hot, dry weather the anthers burst and the pollen becomes free when the flower is in a very early stage of development, and if fertilisation is effected the embryo seed-pods are apt to fall off.

My first venture in cross-fertilising Sweet Peas was in 1895, when, after many visits to Eckford's gardens at Wem, I determined to try and raise new varieties myself. The plants selected were Blanche Burpee and Countess of Radnor, and the resulting flowers in 1896 were all of one colour only, viz., dark purple, not unlike Monarch. In my innocence I imagined that this was fixed, and at the suggestion of a friend I even went the length of giving it a name, and when it broke into several distinct colours the following year the gardener was blamed for having mixed the seed; but I erred in good company, for did not the late Henry Eckford, when he commenced his great work of crossing Sweet Peas, allow Bronze Prince to be distributed before it was fixed, and the mixture that resulted was then attributed to mice carrying the seeds about and mixing them? These breaks were more or less identical with named varieties, and consequently not worth fixing, though I grew a few of them for several years, a pure white variety coming true from the first.

For the next few years I continued crossing named sorts with no more satisfactory results, and it was not until I began to use my own seedlings as pollen parents that I was able to feel that there was a possibility of catching up Eckford.

The use of impure, *i.e.*, unfixed, strains gives a greater variety of breaks than the use of fixed sorts alone. As a rule I used sharply contrasting colours for crossing, in order to see at a glance if the cross had been successful; but this is not always apparent in the first generation, for in 1898 I crossed Black Knight with Lady Mary Currie, and every one of the resulting plants in the following year was a true Black Knight in form and colour. Knowing, however, that the fertilisation had been carefully done, and feeling certain that the cross had taken, I saved some seed from these plants and grew it in 1900, when it produced a few Black Knights and some very fine deep-coloured Lady Mary Curries, which latter proved to be fixed. This success with seedlings crossed with named varieties gave me such encouragement that in 1900 my crosses were so numerous and the seed ripened so well that in two years' time I had far more seedlings than I could attend to properly, and too close planting and a wet season nearly lost me the entire crop. However, I always kept some seed in reserve in case of accidents, so I was not compelled to begin afresh, though it was particularly annoying to have lost a season's growth.

My method was simpler than that adopted by many writers on the subject, and I did not require an elaborate outfit of camel-hair brush, tweezers, muslin bags, &c.; the whole operation was performed at one and the same time, instead of being spread over two or three days, as is generally said to be necessary. After turning back the standard and wings of a half-developed bud, pulling off the keel and removing the anthers with the finger and thumb, the keel of the pollen parent containing the style and anthers was fitted on to the pistil of the seed parent, the standard and wings of the latter folded round it, and the whole lightly tied with a thin strip of raffia to prevent the keel with its pollen being blown off before the stigma had reached the receptive stage and pollination had been effected. It may be thought that this rough-and-ready method allows of interference by bees or other insects; but I think it would be as difficult for a bee to untie the raffia and reach the stigma as to effect an entrance into a muslin bag, and even a large moth or the leaf-cutter bee would have its calculations upset if it tried to depress the tied-up keel by sitting on the end. As a matter of fact, I am no believer in the fertilisation of old-type Sweet Peas by insect agency, and have never come across an instance of pollination which could be attributed to this cause.

There is no doubt that most Sweet Peas are apt to deteriorate in course of time, and in order to keep them up to the mark a careful process of selection or the raising of new varieties of the same shade of colour by means of cross-fertilisation is necessary; the latter adds enormously to the vigour of the plants, and strangers are often surprised to see my seedlings growing to a height of 12 feet or more. Some varieties degenerate much more rapidly than others; Scarlet Gem, for instance, reverted to Coccinea within two years and was superseded by Queen Alexandra; Navy Blue ran away just as rapidly to a muddy purple colour, though one or two knowing growers were able by careful selection to keep it true, and it has now been reissued under the name of Lord Nelson.

The usual time required for fixing by the old-fashioned method was six years, though many varieties were distributed in a much shorter time; these were, no doubt, recessives and fixed from the first. Some varieties in particular are difficult to fix, and of a few it may be said that they never can be fixed. Lady Grizel Hamilton, from which Sadie Burpee could not be eliminated, is one instance, and Fascination, which always produced Mrs. Gladstone and Emily Eckford (probably its parents, as it was a blend of the two in colour), is another. These are the only two instances in my recollection of Sweet Peas raised by Eckford being distributed by him before they were properly fixed. Of course, it sometimes happened that an odd seed or two of another sort was found in a packet of a new variety; but this was not a case of unfixedness, because seed from these adventitious plants invariably came true, and I was always careful to isolate them and save the seed separately. Some of those obtained in this way "on the cheap" and before they were distributed were Dorothy Eckford, Mrs. Fitzgerald (a great favourite of mine for cross-fertilising purposes), Lady Mary Currie, Triumph, Royal Rose and Blanche Burpee. I saw Lady Grizel Hamilton growing at Wem for several years before it was sent out in 1898, and, though such an old stager, it is still the leading flower among the old-type varieties in the lavender class. By distributing it, although unfixed, Henry Eckford earned the gratitude of all lovers of the Sweet Pea. Fascination was, I believe, grown for twelve years or more, and was only then (1900) distributed owing to the importunity of some of its admirers.

As an instance of sporting in Sweet Peas, the old-time Bronze Prince occasionally appeared among the newer varieties; but this would be more correctly described as atavism, or reversion to a previous type. My brother and I used to pay a visit to Wem at least once every summer and always enjoyed a chat with Henry Eckford among his Sweet Peas. What a grand old enthusiast he was! How he loved his flowers and delighted in showing visitors round his Sweet Pea grounds, pointing out any novelty of special merit! "Just the colour of a soldier's coat," as he said of Coccinea when it first made its appearance.

Aldersey Hall, Chester. HUGH ALDERSEY.

GATHERING SWEET PEAS FOR EXHIBITION IN MR. ROBERT CHAPLIN'S NURSERY AT WALTHAM CROSS.

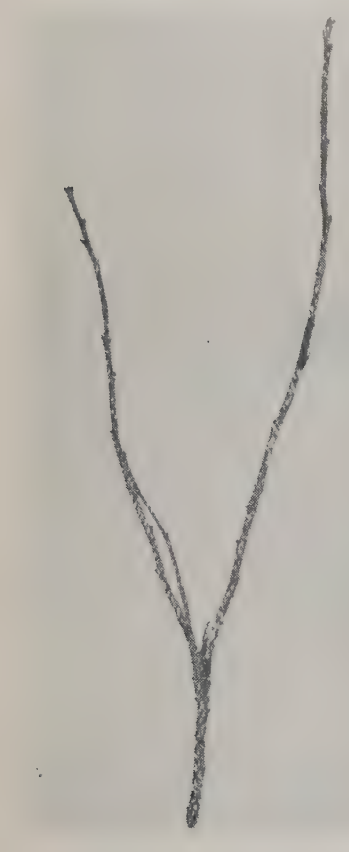
GATHERING SWEET PEAS FOR EXHIBITION.

THE accompanying illustration is from a photograph sent to us by Mr. W. R. Chaplin, Joyning's Nursery, Waltham Cross, and serves to show the extent to which the Sweet Pea is now grown for exhibition purposes. It represents a portion of the crop only, and, as will be seen, the plants are flowering very freely indeed.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FRUIT GARDEN.—The present is the best time of the whole year for spraying hardy fruit trees with the excellent caustic winter wash, as the buds have not developed enough to be injured, while some forms of insect-life will be getting somewhat active. This wash is made as follows: Half a pound of caustic soda (Greenbank's 98 per cent.), half a pound of commercial potash or pearlash, and half a pound of treacle or soft soap dissolved in five gallons of water. The treacle or soft soap is to make the wash adhere to the branches better. The solution must be sprayed on all parts of the tree, just coating them with the finest possible spray. A knapsack sprayer is the best tool; but failing this, a syringe fitted with a special spraying nozzle answers very well. The operator must wear old clothes and gloves, the latter preferably of rubber, and stand to the windward side of the tree, as the wash has a burning effect on the hands and clothes. Besides destroying animal-life, this solution kills all lichen, moss and other injurious vegetable substances with which it comes into contact. Vines that are now being started into growth will need a temperature ranging from 50° to 55° or more with sun-heat, gradually increasing this as growth advances. Syringe the rods morning and afternoon with tepid water, and shut up the house early in the afternoon.



1.—A TYPICAL SHOOT OF RED OR WHITE CURRANT. NOTE THE WEAKLY GROWTH TO BE CUT OUT AND THE TWO LEADING SHOOTS TO BE CUT BACK.

Flower Garden.—Where Sweet Peas are to be raised under glass, no time must be lost in sowing the seeds. It is a good plan to sow five in a 5-inch pot, placing them at regular intervals round the edge. The pots must be well drained and the soil of an open, friable character. The pots should be stood in a cold frame near the glass, or, failing this, on a shelf in a cool greenhouse, bearing in mind that the young plants will need perfectly hardy treatment from the outset. Sowing outdoors may well be deferred until the end of the month or early in March. Any alterations that were not carried out in the herbaceous border in November or December last may now be finished. Plants lifted, divided and replanted at this season usually do well and give an excellent display of flowers the following summer. Of course, this work must not be touched if the ground is frozen. Providing all the wheeling of manure and soil is finished for the season, gravel paths may now be turned over 1 inch or 2 inches deep with a fork, any hollows filled up and the whole well rolled down again. This will give the walks a bright and clean appearance for the summer.

Greenhouse.—This will now be bright with forced bulbs, such as Daffodils, Hyacinths and Tulips, and the more air these have the longer will the flowers last. Attention must be given to watering, as these plants, especially the Daffodils, need generous supplies during their growing and flowering periods. As the plants go out of flower they may be stood in cold frames and given attention until the foliage naturally dies down, after which they may be planted in shrubberies or borders where they can remain undisturbed for several years. Now is a good time to repot such foliage plants as Dracænas and Palms. Use soil composed of good fibrous loam two parts, thoroughly rotted manure one part, with a little coarse sand added. Where the old soil is at all sour, the greater part of it should be cleared away from the roots with a pointed stick, and this will usually allow the plants to go back into pots of the same size as those they previously occupied. Any thick roots, or toes, as they are commonly called, found on the Dracænas may be removed. If potted into very light, well-drained soil, or, better still, laid in Cocoanut fibre and kept warm, they will soon form young plants for growing on into specimens.

Vegetable Garden.—Where an early crop of wrinkled Peas is desired, it may be worth while to chance a sowing now, although a week or ten days later will be better, and even this will be quite early enough except on soils of a porous character. It is a good plan with this early sowing to take out a trench about 3 inches deep, fill in with 2 inches of prepared light soil, such as old potting compost well sifted, and then sow the seeds in this. Instead of sowing at the usual depth of 2 inches, try 1 inch for this early crop; if placed deeper and the weather subsequently is cold and wet the seeds will most likely rot. William the First is still a good dwarf variety for early work, but those who desire a new sort cannot do better than try Webb's Surprise; it is of dwarf habit, an enormous cropper and the flavour is excellent. Transplant Rhubarb where it is desired to make new beds. The soil must have been previously trenched to a depth of at least 18 inches and heavily manured. See that each plant possesses at least one good crown and root. Parsnips may be sown now for a general crop. Sow in shallow drills 1 foot apart and thin the plants to 9 inches asunder in the rows. Student and Hollow Crown are two good sorts to grow. It is essential that the soil be well broken up before sowing, otherwise the roots will grow crooked and forked. The main sowing of Longpod Broad Beans should be put in now at the distances advised in the calendar for January 30. H.

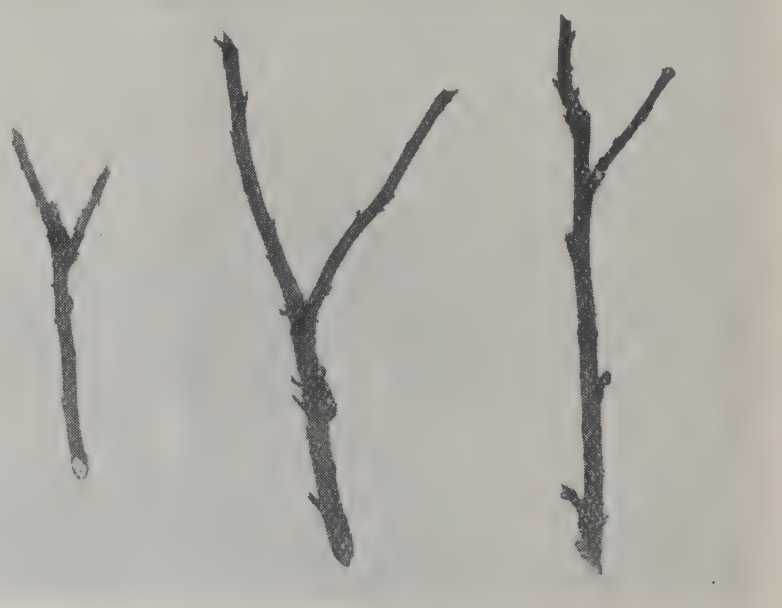
PRUNING RED AND WHITE CURRANTS.

IN the subjoined remarks we propose to deal with the question of pruning bush specimens, as shown in the illustrations. First of all, however, we wish to emphasise the importance of pruning Red and White Currant bushes in no half-hearted fashion. All too often when raising a stock of young bushes their treatment following the first pruning is of a most unsatisfactory character. In consequence of this, the foundation of good bushes is not well and truly laid, and their subsequent development is never very satisfactory.

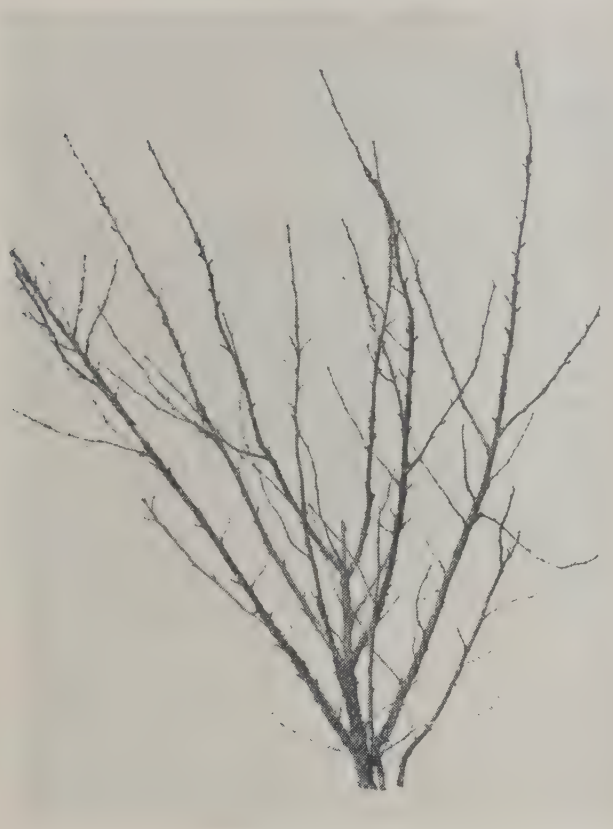
It may be well at this point to mention the fact that the better prunings, *i.e.*, growths that are clean and straight and about 1 foot in length, may be used for the purpose of raising a new stock. Before inserting the cuttings in prepared quarters outdoors, all except about four of the uppermost buds should be removed and the cuttings inserted in the ground to nearly half their depth. In a short time most of the cuttings will have rooted, and before the summer is over each one will have developed three or four shoots of vigorous growth from the buds that were retained at the time of propagation. These growths should be pruned in the succeeding winter by cutting them back to within four or five buds of their base, and in this way the foundation of a good bush may be satisfactorily laid.

As a result of this treatment the young bushes will emit several additional growths in the succeeding spring, and before the summer is past a promising Red or White Currant bush may be actually brought into effect. Pruning of young trees of this description needs to be very carefully done in the winter following. The more prominent leading shoots to the number of six to eight should be retained, and these cut back so as to leave seven or eight good buds on each. All other shoots, which will be mostly of a weak kind or disposed to grow inside the bush, should be cut out by spurring them back close to the main stems that are retained. This process should be continued in each successive year, taking care at all times to cut out weakly growths and those of an unruly kind, so that bushes of an open character may be developed. Each bush should carry a dozen or more leading shoots, and these disposed so that their extension is made quite easy, and a tree of even contour brought into being.

With the object of showing how the pruning of established bushes of Red and White Currants should be done, we think the matter may be simplified by first of all taking a typical growth. Fig. 1 represents a simple growth of the character referred to, and has been cut out of a



2.—A SERIES OF TYPICAL SHOOTS OF THE RED CURRANT AFTER THE PRUNING HAS BEEN COMPLETED.



3.—A COMPARATIVELY YOUNG BUSH THAT HAS BEEN NEGLECTED IN REGARD TO PRUNING.

bush for the express purpose of illustrating these notes. The reader will notice that there are two vigorous shoots and one weakly one. These shoots were developed in the course of last summer and have now to be winter pruned. First of all, the weak growth is cut back to one or two buds, and the two strong leaders shortened back to about five buds. This rule should be observed right throughout the pruning, at all times, however, keeping in mind the necessity of developing a shapely bush. To achieve the latter purpose it may be necessary in some instances to reduce some of the leading growths to one shoot on each; it is not always possible to retain fork-like branches on these bushes. Fig. 2 represents a trio of shoots of Red and White Currants after they have been pruned. The strongest shoots are pruned back rather less hard than the weaker ones, and this is to the advantage of the latter, as they break away into growth subsequently with more vigour. That the reader may be able to appreciate the effect of this method of pruning a Red or White Currant bush, it has been deemed wise to represent a complete specimen before and after pruning.

Fig. 3 aptly portrays a comparatively young bush that has been somewhat neglected. This is some five or six years old, and has never been pruned in a satisfactory manner. Had the pruning been done by the proper method, as we have endeavoured to show in these notes, the growths would have been less long and a more compact and sturdy bush would have been the result. Such a specimen needs really drastic treatment to ensure a promising future. Weak and useless shoots must be spurred back to a single bud. Growths that have grown unruly and got somewhat intertwined must also be severed, so that sun and air may get in among the branches in the succeeding growing season. The shape of the bush should also be considered, leaving the stout growths equidistant as much as possible. Fig. 4 represents the same bush as seen in Fig. 3, after the pruning operation has been completed. A careful observation will reveal what a lot of useless growth has been cut out. D. B. C.

THE PROPER DISTANCE APART TO SOW OR PLANT VEGETABLES.

THE overcrowding of crops does not result in more produce being obtained from a given space. The crops that result are lighter and of inferior quality, owing to the overcrowding. It is a waste of valuable space to put in seeds and plants too far apart; there is a happy medium, which will be found in the following table:

Name.	Distance apart. Rows.	Tubers.	Rows.	Plants.
Artichokes, Globe	—	—	4ft.	—
,, Jerusalem	2ft.	16in.	—	—
Potatoes, early ..	18in.	12in.	—	—
,, late ..	22in.	14in.	—	—
		Seeds.		
Asparagus	1ft.	3in.	1ft.	—
Beans, Broad	1½ft.	6in.	—	—
,, Dwarf	16in.	4in.	—	—
,, Runnner ..	6ft.	6in.	—	—
Beetroot	16in.	3in.	—	—
Borecole	—	—	2ft.	16in.
Brocoli	—	—	2ft.	18in.
Brussels Sprouts ..	—	—	2ft.	20in.
Cabbages	—	—	20in.	18in.
Carrots	12in.	sow thinly	—	—
Cauliflowers	—	—	22in.	18in.
Celery	—	—	3ft.	9in.
Cucumbers, Ridge ..	—	—	2ft.	24in.
Leeks	—	—	2½ft.	12in.
Lettuce, Cabbage ..	—	—	1ft.	10in.
,, Cos	—	—	1ft.	12in.
Onions	12in.	sow thinly	14in.	9in.
Parsnips	18in.	2in.	—	—
Peas, dwarf	3½ft.	2in.	—	—
,, tall	5½ft.	2in.	—	—
Rhubarb	—	—	4ft.	3ft.
Savoys	—	—	20in.	18in.
Seakale	—	—	4ft.	2½ft.
Spinach	3ft.	2in.	—	—
Tomatoes	—	—	4ft.	18in.
Turnips	16in.	sow thinly	—	—
Vegetable Marrows ..	4ft.	—	4ft.	3ft.

In the case of Vegetable Marrows and Cucumbers, the plants in the rows must be trained to right and left alternately; then they will cover the surface of the soil evenly. As a general rule, the first or early crops may be grown a little closer together than the later crops, because the varieties of the different kinds grown are naturally smaller than those for main crops. SHAMROCK.

THE TOWN GARDEN.

MANURING THE LAWN.—Lawns are not fed as much as they ought to be. It is impossible for them to continue to be satisfactory if manures are withheld year after year. The owner must not, however, go to extremes and simply smother the grass with rotted dung for a long period; if he does, a great amount of harm will result, the grass being quite killed in places. A case of this kind came under my notice recently. The lawn—situated in a town—was not in good condition and very badly needed renovating, but the owner was too kind to it, eventually, as I will show. He put on a good dressing of well-rotted manure, and this was, in due course, practically washed in; this did not satisfy him, so he put on a still heavier coating of manure and allowed it to remain in large lumps on the grass for several weeks. Result—one-third of the grass of the entire lawn was killed and the remainder much injured. Since then the lawn in question has been relaid. It is not the quantity of manure that has the best effect, but the quality and the way in which it is applied. Undoubtedly, the best time to apply organic manure is in the autumn, but where this has not been done there should be no hesitation as regards applying some now. The manure must be well rotted, spread evenly and somewhat thinly on the grass, and immediately afterwards thoroughly broken up. Do not allow it to lie undisturbed for more than a few days, but with the aid of a besom brush it to and fro and get it well worked into the surface as soon as possible. Where gritty soil can be procured, a nice dressing of it would also be highly beneficial to the lawn; but all such soil must be free from the seeds of weeds.

ROOTS IN THE STORES.—The owner of a town garden generally takes much pride in growing Dahlias, Gladioli and tuberous Begonias. These plants make a very fine show in the borders during the summer months. Examine them at once, and if any are found to be decaying through being in contact with damp soil, remove them and put some dust-dry soil round them again. Perhaps a few roots may be stored in a warm place, with the result that some new growth has commenced prematurely; if this is so remove them to a safe position, but a cooler one, and where light will reach them, then the new shoots will continue to grow very slowly, but they will be sturdy.

HOLLYHOCKS IN BORDERS.—The dreaded disease which attacks these plants causes dismay in the hearts of amateurs, who are, generally, extremely fond of the plants and their noble spikes of flowers. Seedlings escape the disease more than much-propagated plants do, and the former grow stronger and are very suitable for the embellishment of borders in town gardens. The plants are fairly hardy and withstand the weather during an ordinary winter without any protection. They thrive in a rich soil, and any old plants now growing in the open borders would be much benefited by the application of a top-dressing of fibrous loam and rotted manure mixed. Before putting on the material, however, carefully remove the old surface soil and any old seared leaves from the plants also.

SWEET PEAS.—At a very small cost, both as regards the seeds and the plants and the labour necessary for their growth, a very fine display of bloom may be obtained from May to October from a few clumps, or a single row of Sweet Peas. Nearly everybody loves the Sweet Pea, and everyone who can desires to grow the flowers. It is the most useful and most popular of all annuals, and is very suitable for town gardens; but to be successful in the cultivation of the plants a deep-tilled soil is essential. Both rotted

4.—THE SAME BUSH AS SHOWN IN FIG. 3 AFTER PRUNING HAS BEEN DONE.

manure and artificials must be used. Deeply trench the soil at once and put in the organic manure. The seeds must be sown a few weeks hence in open borders; but some may be sown in 3½-inch pots at once in an ordinary frame or box covered with glass. Put out the resultant plants in April in clumps or rows, but prepare the ground for them now. They form a neat background to a border of herbaceous plants, or one of annuals, and also form an excellent screen to hide ugly places. AVON.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUIT DEPARTMENT.

VINES.—As the days lengthen and the sun becomes more powerful Vines will make rapid progress. Keep pace with disbudding, tying down the laterals and stopping the shoots at about two joints above the bunches. Those which are in bloom will require a nice buoyant and rather drier atmosphere. Tap the trellises two or three times daily to distribute the pollen so as to get a good set of berries. At this stage a night temperature of 65° should be maintained, with a rise of 10° by day and a little more if the sun is bright and warm. Admit on all favourable occasions a little air, but avoid by all means a cutting draught or a sharp fall in the temperature. Earlier and later houses should be damped down more or less with tepid water. Surface damping requires judgment and should be regulated according to the brightness and dulness of the weather.

Young Vines.—As soon as these have well rooted they should be repotted, using clean, dry and warm 5-inch pots, and the soil of the same temperature as that in which the Vines are growing. When repotting be very careful not to break any of the tender roots, and do not at this stage pot too firmly. Take care not to overwater for some time, amd when any is applied give sufficient to wet the whole of the soil. Keep them growing on in a nice warm moist position. If given good treatment they should make excellent specimens for planting out in April or early in May.

Peaches.—When starting later houses do not employ too much fire-heat. If the night temperature stands at 45° to 50° for a time this will be ample, the day temperature rising to 55° or 60°. Syringe the trees during bright weather twice daily and less in dull weather. I like the buds to get fairly dry by the evening. Those more advanced should be kept growing steadily, so that the wood does not get too much in front of the blooms or tiny fruits. Admit air more or less at all times to keep the growth sturdy and hard.

Melons.—Young plants raised from seed early in January may require a trifle larger pot. To encourage a sturdy free growth let the night temperature range from 65° to 70° and keep the plants in a light position near the glass. Plants raised from seed sown now will grow away more freely and soon be fit to put out.

PLANT DEPARTMENT.

Ferns.—A thorough inspection ought now to be made of all kinds of Ferns, and those requiring repotting may be taken in hand. The new soil should be sweet and mixed to suit the different kinds. For Adiantums and several others, good sandy loam, peat, charcoal and sharp sand will suffice. Use the soil in a warm state, especially for the more delicate varieties, and pot moderately firm. Be careful with the water for some time.

Eucharis amazonica.—These wil grow and flower freely in suitable-sized pots without any disturbing of the roots for some years if given attention with regard to feeding; but when the bulbs through some cause or other have got into a rather bad state, they should be shaken out and potted in fresh sweet soil. The pots should be well drained and not larger than 12 inches in diameter, or less, according to the number of bulbs to be planted in each. Do not overwater newly-planted bulbs, and keep them in a warm temperature.

H. MARKHAM.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

PLANTS FOR SUMMER BEDDING.

GERANIUMS.—Cuttings of these inserted in pots or boxes of soil last autumn and kept dry for some time past will now require more generous treatment to induce growth, particularly so if from any cause the number is below the estimated requirements and spring propagation has consequently to be resorted to. Crevices which, owing to shrinkage of the soil, are observable should be filled with fresh material and pressed firm, after which water may be applied on a bright, warm day, and the same repeated at intervals until the whole rooting medium is moistened. If cuttings are wanted, slight warmth and occasional sprinklings with tepid water may be applied; but if otherwise, cool treatment is preferable.

PLANTS UNDER GLASS.

Lobelias, *Ageratums*, *Petunias* and a host of others used for the embellishment of the flower garden may now be sown, using rich, finely-sifted soil and covering the seeds, according to their size, as previously directed. If kept dark, seeds germinate more freely; but care must be taken that the coverings are removed as soon as this takes place, or weakness of the growth will ensue.

East Lothian Stocks.—Few Stocks raised annually are more serviceable than these, and if seed is sown about this time, good plants may be raised by May. Sown in boxes, there is less trouble with damp than by any other method. Scatter the seeds evenly and thinly, and cover them with half an inch of soil. Give a position, if possible, where drying atmospheric influences are not felt, to obviate the necessity for frequent waterings. Care should be taken to obtain seed from a good source, for although all the flowers may not be double even then, a large percentage will be so.

FLOWER GARDEN.

Sweet Peas.—Those sown in pots some weeks ago will now be starting into free growth. If for planting outside, avoid high temperatures and keep the plants near the glass to ensure robustness. A few twigs will give the necessary support, if such is needed. Successional lots for flowering in July and onwards may now be sown, and if this is done in pots of soil, more satisfactory results and, as it often proves, less trouble are experienced than by sowing in the open. Five-inch pots are very suitable, and half-a dozen seeds deposited in each are ample. Should all grow, thinning may be carried out at the discretion of the cultivator.

KITCHEN GARDEN.

Peas and Beans.—Where space and convenience exist for the culture of these under glass, the produce is sure to meet with appreciation; but if the reverse, the space might be more profitably occupied with other less fastidious subjects. The first named especially require light, air and warmth in full degree to do them justice; the second, though more amenable to pot culture, are impatient of overcrowding and must have high temperatures, also a position well exposed to the light, to give satisfactory returns. For these pots 7 inches in diameter are suitable, which, being drained and three-parts filled with a rich soil, may have from six to nine Beans placed 1 inch below the surface. These quickly respond to warmth and moisture, and from the time the first leaves appear should have ample space for development. The trailing type of Dwarf Bean is well adapted for planting out in a well-heated structure. If the shoots are trained to strings or wires near the roof, they will be productive for a long season.

JAMES DAY.
(Gardener to the Earl of Galloway.)
Galloway House, Garlieston, Wigtownshire.

SWEET PEA AIMS.

IN the "Sweet Pea Annual" for 1908 Mr. W. P. Wright contributed an important paper entitled "Breakers Ahead." In it he likened our flower to a yacht and the reefs which must be avoided to "mixed stocks" and "streak." Continuing the metaphor, I now ask what the good yacht Sweet Pea will be like when her captain (the National Sweet Pea Society) has got her to his liking? At Port Eckford she has been entirely overhauled and repainted; at Port Cole she has been fitted with a new type of sail and her hull generally strengthened; to Port Unwin she has been for this, to Port Bolton for that and to Port Hemus for the other. She is all the time calling somewhere. What will she be like when perfection is reached, and will she be turned out a racer or a pleasure boat? Dropping metaphor, I would enquire what it is that hybridisers are striving for to-day? To produce a spike of flowers that will outdistance every competitor in the show? To give our gardens a strong, beautiful and floriferous plant? To introduce anything strange and new that may attract the unwary? The first two are legitimate aspirations; the last is not. I will deal with the show ideal first.

Although I do not remember to have seen the Sweet Pea called a florist's flower, it is one to all intents, inasmuch as with many the exhibition table is its ultimate destination. Take almost any of the little Sweet Pea brochures, such as "Questions and Answers on Sweet Peas," by H. J. Wright; "Sweet Pea Growing," by Thomas Jones; or "How to Grow Sweet Peas," by T. Stevenson; in all preparation for exhibition looms large. Following, perhaps unknowingly, in the footsteps of George Glenny, whose "Properties of Flowers and Plants" must have had an immense influence on all floriculture between 1830 and 1860, our good friend Mr. Jones has stated that "a giant flower of a perfect form, with a true rich colour," is what he terms "an exhibition flower." But what is a perfect form? The prim, stiff flower that we find in coccinea, or the ultra waved Miss Frills? Personally I have by no means gone entirely over to the Spencer type. There is something in Forbes Watson's plea for the wild types in his "Flowers and Gardens—Notes on Plant Beauty." We must be sure when we break right away from them that we have got something more beautiful. It is pleasant to think that Mr. John Eckford, although he was the proposer of the first-class certificate for a waved Sweet Pea and who offered the first true stock of a waved variety to the public, is not inclined to give up everything to them. Speaking for myself, I almost always prefer an Unwin to a Spencer type. More of the true Pea form is preserved and the flower does not look so much like a bit of crumpled paper.

A point not touched upon in Mr. Jones's definition is the placing of the flowers on the stem. The ideal is to have them with a small space between them, and not all crowded and overlapping one another on the stem. Anyone who has Messrs. G. Stark and Sons novelties list for 1908 will see what I mean in the contrast between Silver Wings and Winnie Jones.

Then to come to the stem, I cannot say that I think great, thick, squarish rods of stems very beautiful when associated with such light-looking flowers as Sweet Peas. We want a thinner and a more wiry support to be in character. I am glad to know that this point is not lost sight of.

Last of all, I ask those in authority if the present method of exhibiting in masses of twenty sprays in a vase is the best? As far as I can find out, no florist's flower has ever been shown in such large bunches. The beauty of the individual flower is to some extent lost and its pose on the stem hidden. One is glad to read in the 1908 schedule, "The judges will be instructed to

regard the overcrowding of a vase as a fault." This is an instruction which is decidedly in the right direction. I hope it will lead in time to such an arrangement as we get on page 7 of Mr. R. Bolton's 1909 list being generally adopted. His vase of Mrs. Hardcastle Sykes which is pictured there is very beautiful indeed, and the individual flowers and their arrangement on the stems can be distinctly seen.

The garden ideal must necessarily be to a large extent the same. Here, however, certain new factors come in. We want a robust, healthy constitution; we want varieties that keep up a long succession of bloom; we want kinds that break well and become a mass of flower from top to bottom. Again, some flowers are more susceptible to bad and cold weather than others; all orange shades more or less burn in the sun; certain reds and others change to colours the reverse of beautiful. Can these things be changed? There are many worlds for the painstaking hybridist to conquer. Countess Spencer blood has given vigour and robustness to its progeny in a most unexpected way. Who knows but that there are more surprises in store and that we shall one day have plants and flowers now considered impossible. JOSEPH JACOB.

SWEET PEAS AND THEIR DECORATIVE USES.

IN consequence of the greater beauty of the newer varieties of Sweet Peas the task of the floral decorator has now become a far more simple matter than formerly. Varieties that have been acquired in recent years are capable of satisfying the taste of the most fastidious.

It should be the aim of those responsible for indoor decorations to carry out their colour schemes with a due consideration for the weather prevailing at the time. In hot, trying weather we should use Sweet Peas of a colour that would have a cooling influence, and on dull, sunless days utilise flowers of the warmest and brightest tones of colour. As the Sweet Pea blooms are produced in such abundance, and the plants benefit by a frequent and systematic gathering of them, it should be a very simple matter to change the flowers on alternate days. There is nothing more effective for artificial light than the best pink-coloured varieties. A table decoration of Countess Spencer Sweet Pea is indeed "a thing of beauty," and by a wise choice of varieties a blending of the different tones of pink may be made one of the loveliest decorations imaginable. We may associate blush, soft pink and warm pink blooms with the assurance that the result will be distinctly pretty and effective; and now that there are so many intermediate tones of pink, with the suspicion of salmon apparent in many of them, most lovely creations are possible.

Some of the bicolors are especially attractive. A table decoration of Jeannie Gordon Sweet Pea is one of the most refined that it is possible to conceive. Striped, flaked and fancies each make a welcome change from the self-coloured sorts and should be brought into use from time to time. There is a tendency to use the lavender-coloured varieties such as Lady Grizel Hamilton and those of kindred tones of colour under artificial light. In daylight this colour may be used most advantageously, but for use at night it is altogether unsuitable.

So few decorators appear to understand the proper use of the crimson and scarlet Sweet Peas. Almost invariably these flowers are contrasted with white or cream-coloured blooms. The first contrast is somewhat violent in its character, while the latter is made bearable when the two colours are well balanced in their arrangement. Why the different crimson and scarlet blooms are not properly blended so that their association is a pleasing one passes the writer's comprehension. Some of the most glorious decorations imaginable may be created by the use of Sweet Peas of the colours just alluded to, and those who will be bold enough to be original will most assuredly receive the recognition they deserve. Readers who will take the trouble to make a careful observation of those who are in the habit of setting up decorative exhibits at various shows throughout the country will frequently see the exhibitors shortening the flower-stalks bearing the spray of blooms. I have seen them shortened to quite half their length, in consequence of which fact the exhibit has presented, when completed, a dwarfed, inartistic appearance. The Sweet Peas should be represented as they are grown, so that their splendid length of stem may give that lightness and elegance of finish which is most essential in all artistic creations.

It is a common failing to place too many flowers in the different receptacles. There is a general tendency to add flowers to the different vases, &c., if they can be accommodated therein, and the value of each individual flower in the arrangement seldom receives the consideration that is imperative if the result is to be really artistic. Were floral decorators to observe the rule never to insert a flower unless it is to render a good account of itself, there would be less crowding together of flowers than is now the common rule, both in the decorations of the home and the exhibition. For numerous uses in the house we make frequent use of small, clear, plain glasses, not more than 4 inches in height. These little glasses have a comparatively long neck and a wide space at their base; in this way it is a simple matter to arrange the blooms daintily and effectively, and the heavier bottom of the glass maintains them in a safe position. Small bowls are also admirably adapted for Sweet Pea decorations, and if a "Corona" brass wirework adjuster be used with them a child could make quite a delightful floral picture.

I should welcome a change from the silvered or bronze rustic ware that have become the orthodox utensils used at most of the leading shows. They are very useful for those who are not adepts at arranging flowers, but they are very formal and wanting in artistic worth. For use in association with Sweet Pea blooms the haulm of the plant is most suitable, the dainty tendrils adding a charm to the picture that nothing else is capable of doing. Sprays of tanned Hornbeam, sprigs of Oak, Bramble and many similar subjects may be well and advantageously associated with the Sweet Peas. Plumes of neat, fresh grass if not overdone also add to the attractiveness of the display. Occasionally a few pale green fronds of some of the different forms of the Asparagus give a pleasing finish, but this must not be overdone. D. B. CRANE.

THE EDITOR'S TABLE.

APPLES IN JANUARY.

Mr. Leonard S. Lush, Maiden Hill House, Stonehouse, Gloucestershire, sends fruits gathered from old orchard trees of some of the most delicious Apples we have ever seen. They comprise Ashmead's Kernel (in a splendid state of preservation), the Brandy Apple, Wyken Pippin and Ribston Pippin, an interesting list for January. Mr. Lush also sends the following note: "Your 'Table' dealing with late dessert Apples is most interesting to the writer, and greatly adds to the perfection of your excellent weekly. I am sending samples of the best-flavoured sorts (four) grown here, on the Cotswold slopes overlooking the Severn, for use at Christmas and during the following three months. The late Pearmains we have, but I am sorry I do not know Adam's Pearmain. Sturmer Pippin I hope will make a good finish in April, possibly later. You will note the absence of well-known but not well-grown sorts here. A friend sends me Spice Apple from Colchester, a grand sort of which I must learn more. 1. Ribston Pippin. — This needs no comment other than that I am sorry we have eaten the best sunny ones. 2. Wyken Pippin.—Good flavour and grand eye. 3. Brandy Apple.—Eaten and highly esteemed by our ancestors and, like them, unfortunately, worn out. 4. Ashmead's Kernel.—This for flavour (now, January) challenges the world, including Newtown Pippin, as it used to be given me, and which I cannot now buy. It was first produced at Ashmead House, in the centre of the old city of Gloucester."

CHRYSANTHEMUMS AND SWEET PEAS FROM LEICESTER.

A correspondent signing himself "L. D." sends us from Desford, Leicester, some remarkably good white Chrysanthemum flowers and also excellent and fragrant blooms of the Telemy Sweet Peas, both of which on an early day in February were most welcome. He writes: "I am sending you half-a-dozen blooms of Chrysanthemum Winter Queen, as I think for the time of year they are good. I have always found this variety reliable and easy to flower; but it is rather a tall grower, and therefore not suitable for a small greenhouse. The Sweet Peas enclosed are the Telemy varieties. The seeds were sown in the Tomato soil on the benches last autumn. The plants have given us a few blooms all through the winter, and just now are improving in quality and colour. The ordinary sorts were sown at the same time, but are only 18 inches high."

PRIMULA OBCONICA FROM SHEFFIELD.

Messrs. William Artindale and Son, Norfolk Market Hall, Sheffield, send flowers of their beautiful strain of this popular winter-flowering greenhouse plant. The blooms are large and borne on good stems, the colours embracing all the newer shades that are now so much admired. Messrs. Artindale write: "Enclosed please find a few flowers of Primula obconica grandiflora hybrida. We thought these might interest you. The plants have flowered continually since last September and are very free. The enclosed blooms have been grown in quite ordinary soil and in a temperature of about 50°. They are one of the best strains and best winter-flowering plants we have seen. They are easily grown from seed, which should be sown from March to June."

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Organic manure for Sweet Peas and Roses (*N. G. S.*).—As you cannot obtain such organic manures as stable or cow-manure and as your soil is undoubtedly lacking in humus, you cannot do better than use Wakeley's Hop Manure. This is made from spent Hops, and consequently contains a large amount of organic matter. We thoroughly tested it last year for Sweet Peas, culinary Peas and also Roses, and found it perfectly satisfactory. In addition to being valuable for digging

into the soil, it is excellent for mulching beds or for use as a top-dressing. It is manufactured by Messrs. Wakeley Brothers and Co., Limited, Bankside, London.

Manure for Sweet Peas (*Sweet Peas*).—You have done wrong in using superphosphate in your trenches that were made in November last, as by the time the plants are growing freely most of its nourishment will have been washed away. The kainit applied then will do good. We use Eckford's and Mackereth's special Sweet Pea fertilisers when sowing the seeds or putting out the plants, and then feed when growth is active with superphosphate; this we advise you to do. Even if you use superphosphate now, much of its goodness will have been dissipated before the plants are able to make use of it, as it is easily soluble in water. We presume you mean the larvæ of the Carrot fly; the best thing to do to your soil is to trench it up as roughly as possible and so expose it to birds. When the crop is growing keep the soil well over the crowns of the roots, and in May spray with gas water, one gallon mixed with six gallons of clear water.

Sternbergias lutea and macrantha (*N. H. A.*). — Sternbergias are troublesome things to flower in our climate, and probably your bulbs had been grown in a nursery; we find that those most likely to flower are imported direct the same autumn. They should also have been planted earlier, as we have rarely found that newly-imported bulbs planted early in August did not bloom that year. To induce these flowers to bloom, they must have a place where they will be thoroughly rested in summer, so that a situation below a south wall or in front of a greenhouse should be selected. The soil should have some old mortar rubbish in it also, and every care taken to give the bulbs a prolonged period of rest. S. macrantha is a little freer than S. lutea, but neither is very satisfactory in our climate. The same remark applies to Scilla autumnalis japonica, which should have the same treatment as the Sternbergias. The latter are such fine autumn flowers that they are worth some trouble and even frequent disappointment if they can be induced to flower now and again.

Hardy Cyclamens not starting into growth (*Ashknowle*).—Your Cyclamen tubers are quite fresh and sound and will probably start into growth yet; sometimes they lie dormant for a year. If we knew what species your tubers belong to we could tell you more about them.

THE GREENHOUSE.

Treatment of Calanthes (*Lady B.*).—After Calanthes have flowered they should be kept quite dry until the new growth starts at the base of the bulb, which will be towards the end of March or in April. The bulbs must in the meanwhile be kept in a structure with a minimum temperature of 50°. They need repotting every year, and this should be carried out when the new growth starts. The bulb does not die every year, but when strong it produces offsets. The plants are always leafless when flowering. A suitable potting compost is formed of two parts fibrous loam to one part leaf-mould and one part made up of dried cow-manure, pounded fine, and rough silver sand. The whole must be thoroughly incorporated together. For the potting the size of the pots will depend upon the bulbs; but for good single bulbs pots 5 inches to 6 inches in diameter are very suitable. A few good crocks must be put in the bottom of the pot and a little rough loam placed over them. Then fill to within 1 inch of the rim with the compost, place the plant in position so that the young growth is as near the centre of the pot as possible, and pot firmly, leaving the surface just below the rim and the base of the young growth a little below the surface. When potted they may be placed in a good light position in the stove. At first they require very little water, but in summer when growing freely a liberal amount is necessary. At that time an occasional dose of weak liquid cow-manure is very helpful. As the leaves show signs of going to rest the plants should be exposed to strong light in order to ripen them thoroughly.

Lilies for pot culture (*N. W.*).—The best types of Lilies for this purpose are the white-flowered trumpet Lilies, L. longiflorum and those of the L. speciosum group of which L. s. rubrum, L. s. album and L. s. album Krætzeri are the best. The varieties of the former attain, when forced, a height of about 3 feet, while those of the latter group are about 4 feet high unless very late or retarded bulbs are employed. It is possible by the use of bulbs potted in the ordinary way in season and by the use of retarded bulbs to have a succession of flowers for months; indeed, these Lilies are now obtainable all the year round. Both sets succeed perfectly well in sandy loam, and those of the L. speciosum group require rather rich soils and plenty of root-moisture in their growing season. The colours are white and reddish crimsom, and the form of the flower of the one is trumpet shape while those of the other approximate to a star-fish in outline. The bulbs should be potted and placed in a frame to root, being covered with ashes in the meantime.

Cypripediums seeding (*Sam C.*).—The seed of the Cypripediums will take, as a rule, from ten months to one year to ripen. You will be able to tell when the seed is ripe by the pod changing to a yellow or brown colour, and commencing to split, thus showing the dust-like seeds therein. The seed should be sown as soon as it is ripe. The best way to sow the seed, and that followed by all who raise these plants on an extensive scale, is to pot a few ordinary kinds of Cypripedium in a mixture of equal parts of peat and sphagnum and sprinkle the seed thinly on the surface. The roots of the growing plant tend to keep the soil sweet, and in practice it will be found that the seeds germinate in this way much better than if there is not a living plant in the pot. Particular care must be taken in watering, otherwise many of the minute seeds will be washed away. If possible, the seeds when sown should be placed in a structure kept just a few degrees warmer than that in which the plants are usually grown. Dendrobiums may be sown exactly as recommended for Cypripediums, except that the compost should be made up of two parts sphagnum to one of peat. An ordinary Cypripedium may be potted in this. Most growers prefer such a species as C. barbatum, whose leaves are compact.

Kentia leaf for inspection (*Lieutenant-Colonel G. R.*).—Yes, the leaf is badly infested with scale insects, which must be sponged off at once. Use a solution of soft soap, 2oz. to a gallon of warm soft water.

Hydrangea paniculata (*N. W.*).—The pot plants may be pruned or cut back into the firm wood to any good, well-matured or prominent eye or bud, and a similar treatment may be meted out to those in the open ground. Standards in the open may be cut back to within 1 inch or 2 inches of the starting point of the last season's growth, where good eyes are usually to be found. The bush plants may be less severely dealt with, though it is necessary to prune these to well-matured wood to get the best results. The best heads of bloom are the result of this hard pruning and constant feeding of the plants when growth has begun.

TREES AND SHRUBS.

Pruning a Holly hedge (*G. M. M.*).—The best time to prune or clip the Holly, where this is desired or at all necessary, is the early part of March, as this enables the plant to make its new growth in due season. We do not know any Lily by the name "Eglamon," and it is probable that it is only a local term among the natives. You do not, however, say the country from which you get it. Were it possible for you to get a dried flower and leaf of the plant, or even a drawing, we might assist you.

Destroying tree stumps (*A. M. C.*).—We do not know of any means of causing the tree stumps to decay and thus save the trouble of grubbing them. They may, however, be destroyed by burning in the following manner: Bore some holes in them 1 inch in diameter to a point somewhat beyond the centre. These holes should be three-parts filled with saltpetre, and then filled up with water and tightly corked. After three months have passed remove the corks, fill the holes with paraffin and then set on fire. Treated in this way they will gradually smoulder away.

Planting under trees (*Hibernia*).—Your garden is a very unsatisfactory one to deal with, for between the Planes and Elms grass has very little chance to become established. The best way to deal with the space would be to carpet the ground with common Irish Ivy, with patches of double Daffodils here and there. The Ivy succeeds well under trees, and when well established is effective. If you prefer to keep it dwarf it can be clipped hard back each spring. A level carpet would look well, or you could have an undulated surface by planting groups of Tree Ivies in the open spaces among the other Ivy. You could use either green, gold or silver variegated Tree Ivies.

FRUIT GARDEN.

Inarching Muscat of Alexandria Grapes on stocks of Mrs. Pearson and Sweetwater (*Anxious*).—The best time for carrying out the work is about the middle of March when the Vines usually start naturally into growth. The way to do it is to cut a piece out of the stem of the Vine about 10 inches or a foot above the surface of the Vine border. It should be cut only slightly into the woody part below the bark, and the cut should be about 3 inches long. The next thing to do is to cut a similar slit in the side of the young Vine about to be inarched in such a position that both cuts will meet, with the young pot Vine standing on the border. Press the two cut faces together and bind tightly with a piece of matting whipped several times over the now combined stems. This completed, the top of the young inarched Vine should be cut back to within two buds of where they have been joined together. The strongest of these buds should be encouraged to grow its full length throughout the season, making a shoot possibly 5 feet or 6 feet long. The shoot proceeding from the other bud should be stopped at the fifth leaf. The young Vine must not be deprived of sustenance from its roots in the pot until the autumn, by which time it will be part and parcel of the permanent Vine. The binding material must be slightly eased about midsummer, or it will cut deeply into the bark. Before easing the matting take the precaution of tying the Vines above and below the inarched parts, in case they come apart while the ties are eased. Tie again as before, but not quite so tightly.

Growths on Gooseberry stems (*F. R. Baildon*).—The curious growths on the stems of the Gooseberries appear to be due to the attack of some organism upon them, but what is not evident. The best thing to do will be to cut out these parts, as such growths undoubtedly take nourishment from the parts that should have it.

The summer pruning of espalier Pear and Apple trees (*F. P. H.*).—The orthodox, and we think the proper, way of summer pruning espalier Pear and Apple trees is certainly not to cut the branches of the current year's growth down to two buds, but to within six buds of their base. By allowing this number of buds to remain there is no danger of the basal buds being excited into premature growth, because the little growth which takes place after this summer stopping at the end of July or beginning of August invariably rushes to the top buds. These same side shoots are again shortened in winter, the weaker shoots to two buds and the stronger ones to three. The small shoots above the basal buds, as per your sketch, should be cut back to two or three buds of their base, with the object of obtaining one or two strong growths from them next year.

Depredations by the Pear slug (*Eriocampa limaciana*).—This is one of the most destructive caterpillars of the sawfly tribe. Clear away the surface soil immediately under the affected trees to a depth of 3 inches and either burn or bury it in a deep hole, as this will be sure to contain a large percentage of the larvæ. Another necessary precaution to take is to syringe your trees copiously as soon as they are out of flower and the fruits set with the following mixture, and again later if any sign of an attack is perceived: Half a pound of soft soap, half a pint of Tobacco water and half a pint of paraffin; let these be dissolved in warm water, applying half a pint of the mixture to three gallons of water to syringe with. Take care to thoroughly mix the paraffin with the water before it is applied to the trees. This is best done by churning the water several times over in and out with the syringe.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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Offices: 20, Tavistock Street, Covent Garden, W.C.

THE NEW CLASSIFICATION OF DAFFODILS

By the Royal Horticultural Society.

SEVERAL of those most closely interested in the subject have asked me to express my opinion on the new classification of Daffodils. My known study of these flowers for over a quarter of a century possibly gives me a claim to speak and will acquit me of presumption in speaking plainly.

First, it appears to me that the issuing of this classification has been unusual and unfortunate in procedure. According to the official report of the Royal Horticultural Society for 1908, "At the request of the Daffodil Committee the Council appointed a Committee. . . . The Committee have delivered their Report, instituting an entirely new system of classification, which the Council have accepted, and ordered to be used at the Society's Shows." And the newly-classified list of Daffodil names printed by authority of the council is enjoined "for use at all exhibitions of the Royal Horticultural Society."

It would surely have been expedient, and in accord with all received custom in such deliberations, to have referred back the report of the special committee to the Narcissus committee as a whole, that they might have a full opportunity of considering such a sweeping innovation before imposing it by edict of the council upon the society and the public. The more so, because the authors of the new scheme betray doubt as to its reception by the expressions "for the present experimentally adopted" . . . "if the principle involved in the present list should find acceptance." The large number of errors the list contains indicates undue haste in publication, and the only result at present of this precipitancy has been confusion. The schedules of one or two of the spring flower shows have been altered to the new classification; in others the old is retained. The bulb lists of the chief professionals, including that of Messrs. Barr, which is reckoned classical and a standard, are retaining the older arrangement.

I may here mention that, by some extraordinary blunder, the name of Mr. P. R. Barr, who originated the demand for some amended plan of nomenclature, and whose advice would have been invaluable, was omitted from the special committee. I, myself, was unfortunately prevented from attending. I believe I am at liberty to couple Mr. Barr's name with my own and to say that we should both have strongly opposed the new classification as now published. Every expert with whom I have corresponded expresses himself in the same direction, and all agree in regretting that the judgment of the Narcissus committee upon it was not invited.

To me it seems in no single feature an improvement on the old order, but a revolution, indistinct in intention, and without results sufficient to compensate for the disturbance it has created. Its want of clear aim will appear from the widely different views of members of the special committee. One writes to me that the nature of the new arrangement matters little, but the one thing required is to get every single flower clearly ticketed with its own class-label; but, if this is all, a very moderate alteration of the old arrangement would still serve, for a sub-committee appointed for the purpose could assign to its proper pigeon-hole every flower as it arrives. Another member tells me the new list is simply for "the man in the street," and not for experts. On the contrary, another writes that it is exclusively for convenience at the shows, *i.e.*, for experts, and that the old order might remain in use concurrently for ordinary purposes!

The manifest and insuperable fault of the new arrangement is that it absolutely abolishes any approximation to natural classification. It is all very well for its authors to write of being "compelled to fall back on purely arbitrary divisions," but to push this supposed necessity to extremes is to arrive at the obviously absurd and grotesque. The ridicule will be incurred even of "the man in the street" when he sees on a stand such evidently incompatible flowers grouped together as, for instance, those included in the new Division 7. Here we have (*a*) ordinary Polyanthus Narcissus, (*b*) triandrus, (*c*) Jonquil, (*d*) hybrids of Ajax and triandrus (*e*) Hyacinth and similar varieties, (*f*) odorus, (*g*) tridymus. Let us consider some of these items. To pass over the fact that the eye rebels against bringing *a*, *b*, *c* and *g* into one class, it may be noted that a single seed-pod of Ajax and triandrus (*d*) commonly yields single-flowered plants and multi-flowered. Moreover, the same plant is often single-flowered one season and two or more flowered the next. Therefore, what are virtually identical plants are classed in the new list under three several divisions, *e.g.*, (1) Count Visconti, (2) Countess Grey and (7) Betty Berkeley, which is absurd, as Euclid would conclude. Hyacinth (*e*) is a short-cupped, single-bloomed flower which occasionally freaks to twin flowers, just as Poeticus ornatus will do under certain conditions. Thus a quite separable accident is made to determine its class. Odorus (*f*) is a hybrid of Ajax and Jonquil, and is classed in Division 7 because it bears two or more flowers. Buttercup, although from the very same cross, is put into Division 2 because it is usually single-flowered. But seedlings from this cross and from the same

pod vary from one to three flowers permanently or in successive years. In the latter case the same flower must be shown one season under Division 2, and the next under Division 7.

Again, under Division 1 we have flowers so totally distinct by nature and to the eye as Ajax proper, cyclamineus, hybrids of triandrus, and Bulbocodium. A child, let alone "the man in the street," would refuse to squeeze things so dissimilar into one compartment. Did space permit, the same absurdities could be shown throughout the list. In brief, this is the principle of arbitrary division by measurement run mad. The old classification of Mr. Baker and Mr. Peter Barr was an admirable piece of work, inasmuch as it contrived to be usefully arbitrary without doing unnecessary violence to the natural divisions. I maintain that, with certain omissions and additions, the broad framework of this arrangement must always be retained—*naturam expellas furcâ, tamen usque recurret.*

There are other great objections to the new order. Where the work of disentanglement and arrangement has to be done is in the mass of modern intermediate forms, but the pure elements from which they have been bred should not be confused with them. Thus pure Ajax and pure Poeticus should each form a division, and the expert will be at fault so rarely as not to matter in distinguishing, say, the pure Poeticus from its nearest hybrids. Any classification is really for the expert in the first instance, for it is he who has to assign each new flower to it for the relief of "the man in the street." I have been answered that Division 4 of the new scheme admits of, and was intended to contain, a separate sub-division of pure Poeticus. But this concession appears to me to acknowledge in principle the superiority of the older classification.

It must be seen, too, that in proportion as natural classification is dropped, not only form becomes more important in making divisions, but colour also. Any scheme claiming to be fairly complete and ready for actual use, *e.g.*, in arranging a show, must provide for, and should improve upon, the old colour distinctions in each division. This is of the essence of a useful scheme, and it is not enough to suggest, as the new list does, that this may be added in a later edition. Even if its general principle were acceptable, which I deny, this new classification ought not to have been launched until more practically complete. G. H. ENGLEHEART.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

*** *The dates given below are those supplied by the respective Secretaries.*

February 23.—Royal Horticultural Society. Exhibition of Flowers and Fruit, Vincent Square, Westminster, 1 p.m. to 6 p.m. Lecture at three o'clock on "A Camping Tour through Syria to Petra in Arabia," by A. W. Sutton, Esq., J.P., F.L.S., V.M.H.

March 9. — Royal Horticultural Society. Exhibition of Flowers and Fruit, Vincent Square, Westminster, 1 p.m. to 6 p.m.

Bound volumes of "The Garden" as prizes at horticultural shows.—It has been suggested by several secretaries of provincial horticultural societies that a bound volume of THE GARDEN would be much valued if offered as a prize for competition at their respective shows. The Proprietors have therefore decided to offer a certain number of volumes for such a purpose, and any secretary desiring one should apply at once to the Manager of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C., marking the envelope plainly on the outside with the words, "Prize Volume." All such applications will be promptly considered, and volumes presented according to the discretion of the Manager.

Gardeners' Royal Benevolent Institution.—The Liverpool Auxiliary have arranged for their annual reunion to take place on the 20th inst. They have secured Mr. M. E. Kearney, deputy-chairman of the Parks and Gardens Committee, to preside, and a fine array of artistes will attend, so that everything promises to a successful issue. Mr. R. G. Waterman, Woolton, is the secretary.

Royal Horticultural Society's annual general meeting.—The annual general meeting of the Fellows of the society was held in the lecture-room on the 9th inst., Sir Trevor Lawrence, Bart., presiding over a fairly good attendance. Seventy new Fellows were elected. In moving the adoption of the report and balance-sheet, Sir Trevor touched on many points of interest, such as the society's work at Wisley, the colour chart, and the able and courteous manner in which the officers of the society carried out their duties, a compliment that is well deserved. Mr. J. Gurney Fowler seconded Sir Trevor Lawrence's proposal, and in doing so drew attention in his usual lucid manner to points of special interest in the balance-sheet, particulars of which were given in a recent issue. A discussion, in which the Rev. Joseph Jacob, Mr. C. E. Pearson, Mr. H. J. Elwes, Mr. G. Payne and others took part, was raised in regard to the Lindley Library, chiefly because so little money had been devoted to it during the past year. Sir Trevor Lawrence pointed out, however, that the library, although it existed for the benefit of the Fellows, was not administered by the society, but by the Lindley trustees, and any new books purchased by the society were specially marked to distinguish them from the original library. The Veitch Memorial medals were conferred on the Rev. W. Wilks and Mr. William Marshall, and the Victoria Medal of Honour upon Sir Jeremiah Colman, Bart., and Mr. Charles Ross.

Perpetual-flowering Carnation Society.—The annual meeting of this society was held at the Hotel Windsor on the 10th inst. The report of the committee which was presented showed a very satisfactory year of work. The registration of new varieties has been started; the lectures and question box at the shows have been much appreciated; medals have been struck; two challenge cups have been given to the society, one by the president, Lord Howard de Walden, and the other by the American Carnation Society; new members are being enrolled; and two successful shows have been held. The gate at the December show was disappointing, and this has told its tale in the accounts for the year. However, all's well that ends well, and the threatened deficit has been averted (thanks in no small measure to the generosity of the members of the committee) and there is a small balance in hand with which to begin the new year. Mr. Brunton, in moving the adoption of the report and accounts, thanked all the donors of prizes and all the officers of the society for their help during 1908, and asked members to also remember their indebtedness to the Press. The following is a list of office-bearers for 1909: Patron, H.S.H. Prince Francis of Teck; president, the Lord Howard de Walden; vice-presidents, Sir R. L. Baker, Bart., Messrs. J. S. Brunton, S. H. Byass, E. T. Johnstone, T. S. Turnbull and the Rev. J. Jacob; chairman of committee, Mr. J. S. Brunton; vice-chairman of commitee, Mr. S. Mortimer; hon. secretary, Mr. Hayward Mathias; show superintendent, Mr. E. F. Hawes; hon. treasurer, Mr. L. J. Cook; auditors, Mr. C. H. Curtis and Mr. R. Pinches. There will be two shows during the present year, both at the Roya. Horticultural Society's Hall, Vincent Squarel The first one is fixed for March 24.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

"The Garden" Flower Show.—The dictum of "A. C." does not by any means settle the question as to what are spring-sown Onions. To claim that an Onion raised after the New Year is a spring-sown one, although the sowing be made in midwinter, is as absurd as to claim that a sowing made also under glass in December would raise autumn-sown plants. Old practices have recognised from time immemorial that autumn sowings are made in the autumn (August and September), spring sowings are made in the spring (March and April), and a sowing made in January is neither. This matter crops up continually at shows, and compels, in many cases, the formation of a separate class for winter-sown Onions. As to Carrots, the proper varieties for a July show, from amateurs especially, who do not grow Carrots for exhibition as professional gardeners do, and often have little room, are the Early Nantes or Scarlet Model, and not the late, deep-rooting Intermediate. No one suggested showing Grapes in a collection of bush fruits. White Currants are, I find from wide experience, far less grown than Red; but, of course, in any collection of bush fruits a dish of good White Currants would tell.—A. DEAN.

Apple Newton Wonder.—We constantly read of Newton Wonder being a very free bearer. I find it extremely shy, even with trees against a wall. Curiously, the only tree I have that bears even decently is a standard on the Crab!—D. K., *County Cavan.*

Eupatoire en arbre at the Riviera.—Mrs. Bardswell, in her notes from the Riviera (page 51), mentions a winter-blooming shrub which she says the gardeners here call Epatoire. Eupatoire, I think, is the proper rendering. I have no doubt that the plant described by your correspondent is Eupatorium micranthum, a native of Mexico, but quite at home on the Riviera. I do not know if an English name exists, unless it be Eupatory. The only British species is E. cannabinum, the common Hemp Agrimony, which is very different, however, to the Eupatoire en arbre. Here, in the South of France, this Eupatoire appears to take the place of our English Privet for hedges, and, indeed, when out of flower much resembles it in form and habit. It grows from 5 feet to 8 feet in height, commences flowering in November, and continues in bloom throughout the winter. The much-branched corymbs of pretty composite flowers are terminal on the current year's growth. Whether as a hedge plant or in the shrubberies, it is a charming subject with its wealth of bloom of snowy whiteness.—E. AVERY, *Grasse.*

The double Cyclamen.—The evolution of the Cyclamen has been very marked within the last few years, and many beautiful forms may now be obtained. No doubt the double flower in the near future will have come to stay, but it is extremely doubtful if it ever attains the same place in the affections of lovers of flowers as the single varieties hold. Mr. Humphreys may be interested to know that a pure white double-flowered specimen occurred here a few years ago, from seed procured from Messrs. Sutton. Every flower was in the same form, which was very fine. The plant was isolated and the seed saved, the result being a batch of plants which flowered without exception true to the parent. Unfortunately, the whole lot was lost during the resting period and our disappointment was great. I enclose a flower of another shape. I have not seen anything quite like this before; all the flowers on the same plant are alike.—T. C. [The flower sent by our correspondent was very flat and consisted of two whorls of rather narrow and somewhat twisted petals.—ED.]

New Potatoes at Christmas.—I notice in your correspondence columns a note about new Potatoes in January and a request for information as to how they are obtained. Perhaps a word from one who used to get them in at Christmas may not be out of place. In my last private situation I made a point of getting my first crop by that time and maintaining the supply through the spring. I selected for the first crop good sets of early Ashleaf, hardened them off, and planted them in an old Melon frame about the end of September, when they used to bear at the time stated and often proved a great surprise to visitors.—C. H. CLISSOLD, *54, Abinger Road, Primrose Hill, N.W.*

Cure for Peach leaf-curl.—It is gratifying to be able again to report favourably on Mr. Bunyard's specific for leaf-curl. Last year we began to spray the Peach and Nectarine trees when the buds began to swell, and having sufficient of the liquid to go over the trees several times, the process was repeated at intervals of a week four or five times, with the result that no sign of the dreaded curl appeared. The growth produced was clean and healthy, and the crop of fruit all that could be desired—certainly the best we have had for many years. After two seasons' complete success, one feels justified in saying that in Medela we have a remedy, or, rather, a preventive of the scourge, which so sadly injures, and in some cases entirely kills, our outdoor Peach and Nectarine trees.—T. CARTER, *Glastonbury.*

How to rid a garden of field mice.—If "H. E. C." will try what I may perhaps call the water-trap, I am sure he will be pleased with the result. It consists of a large jar which is rather narrow at the neck. It much resembles a jam or marmalade jar, but of a large size, say, about 12 inches deep, 7 inches or 8 inches wide at the bottom, and about 4 inches wide at the neck. The jar should be plunged in the grass or border near the holes of the mice until the top of the jar is just level with the surface of the ground, then filled about three-parts full with clean water. The mice while trying to drink the water lose their footing on the slippery rim of the jar and drop in. A number of such traps scattered about the garden will soon reduce the number of mischief-makers. Last summer my employer, Sir Herbert E. Maxwell, having apparently seen or heard about this contrivance while visiting in England, wrote instructing me to give it a trial. I was rather sceptical at first, but after giving it a fair trial was certainly agreeably surprised with the result. Within a radius of some 50 yards with eight such traps we killed over 100 mice in about three months, and we are still getting an odd one occasionally. The jars can be purchased for the price of the ordinary mouse-trap, and after they are once placed in position there is very little trouble with them. There is no time or patience lost in setting the trap each time a mouse is caught, and one only requires to take a turn round the traps each day and collect the slain. The water should be changed perhaps once a week during warm weather. I may say that among the number collected at Monreith there were all sorts and sizes of mice, but the majority were the short-tailed field mice. — SAMUEL GORDON, *Monreith Gardens, Whauphill.*

—— In answer to the enquiries of "H. E. C." on page 26 of THE GARDEN, "How to rid a garden of field mice," we may point out that experience has shown that the most efficacious remedy is Danysz Virus. Every effort should be made at this time of the year to exterminate field mice before seeds are sown. The great advantage of Danysz Virus is that it contains the germs of a disease to which only rats and other mouselike rodents are susceptible, and that it is quite harmless to human beings, domestic and other animals, birds, &c. The value of this remedy has been recognised by the French Government, which recently voted the sum of £14,000 for the purpose of coping with a plague of field mice in certain departments in the North of France. The results were entirely successful. What was thus accomplished on a large scale can be managed equally effectively in such a small area as a garden. Danysz Virus for mice is sold in glass tubes at 1s. 6d. per tube; three tubes, 3s. To those who propose to give the remedy a trial, we shall be very willing to offer advice as to the number of tubes to be used.—DANYSZ VIRUS, LIMITED, *52, Leadenhall Street, London, E.C.*

Sunflower seeds for poultry.—Would you allow me to enquire through your columns if any of your readers can kindly advise me as to growing Sunflower seed for poultry? Is the climate of this county (Shropshire) warm enough to thoroughly ripen the seed? What is the best variety? How far apart should the seed be sown, and how far from plant to plant in the rows? What quantity of seed might one reasonably expect to get off, say, 600 square yards? I suppose it should be sown about March? — W. SERJEANTSON, *Acton Burnell Rectory, Shrewsbury.*

A Crocus flowering without soil. The illustration (page 27) of a Crocus flowering without soil is interesting, but the occurrence is, I think, by no means an unusual one. I have several times found Crocuses, which have been dropped in the autumn on rough grass, flowering. The long grass, I fancy, keeps the bulbs moist and affords them slight protection. Last spring, in the deep shade of a little wood of mine, I noticed two Daffodil bulbs lying on the surface of the ground. One of them (the common Lent Lily) bore a fully-expanded flower, while the other had a healthy-looking bud. The autumn Colchicums (Meadow Saffrons) and Sternbergia lutea may be often seen in bulb merchants' shops blooming where they lie in heaps, also some of the autumn Crocuses.—E. TESCHEMACHER, *Lye Green Farm, Chesham, Bucks.*

Clubbing in Brassicas.—I had not heard or seen anything of clubbing for a long time until I read Mr. Crook's article on the subject in your issue for January 30, but remember having to contend with it in one garden I took charge of several years ago. Many plants when taken from the seed-bed had growths the size of large Peas on the stem among the roots. Some of these I discarded, but if the plants were otherwise good I simply picked off the projecting side of the growth and killed the white grub or maggot, which was nearly always found inside the young plants. I then made up a mixture consisting mostly of clay and water, to which was added a fair quantity of soot and lime and a dash of paraffin. This was mixed until it was of the consistency of thick paint; the roots were then puddled in it and planted out, and the clubbing or grub gave no further trouble. Mr. Crook's plan of watering with manure water I consider to be simply another, though less convenient, means of arriving at the same end—that is, making the roots distasteful to the grub or maggot.—ANTI CLUB.

Hydrocyanic acid gas and mealy bug on Vines. — With reference to the destruction of mealy bug on Vines by the use of this gas, touched upon by Mr. G. Wythes in your issue for the 30th ult., there is no doubt in my mind as to its efficacy. The great drawback is the fact that the eggs are not destroyed. We have subjected resting Vines to the gas this season, various other plants being experimented upon at the same time, and after two fumigations we were unable to find a live bug even on badly infested plants. With regard to the Vines, however, very few developed insects are to be found upon dormant canes at this period. If four fumigations could be undertaken at intervals of four or six days, commencing immediately the Vines break, I think practically all the pests might be accounted for. I have not yet heard of any grower, however, who has had the courage to try this plan, lest injury should be done to the Vines themselves. All I can say on the matter from experience is that we exposed a pot Vine (Black Hamburgh) on two occasions to hydrocyanic acid gas, when its shoots were from 1½ inches to 2 inches long, and it has since developed sturdy growths and good bunches of inflorescences, being in no way hurt.—J. E. SIMMS.

A wonderful fruit.—The remarks of Mr. A. Dean (page 63) on a wonderful fruit, or rather some wonderful story concerning its parentage, is far eclipsed by a recent article in a well-known weekly paper, in which we are gravely told that "A Boston horticulturist has succeeded in producing a new and remarkable fruit by crossing Cucumber and Orange plants. The new fruit, which is yellow in colour and devoid of seed, is said to possess a most agreeable flavour." When such twaddle as this is put forward in all seriousness, one is inclined to look elsewhere for horticultural notes that can be relied on.—H. P.

When to plant fruit trees.—Beginners must often be sorely puzzled at the contradictory advice they get. Constantly they read in THE GARDEN that if they cannot get their new Apple trees in in early November they had better wait till spring, and this advice is emphasised in that useful little book on the Apple by Mr. Thomas, lately published. Now we have "H. T. W." in a recent issue of THE GARDEN telling them, if they have not planted already, to do so at once. I am sure that he is quite wrong, and that midwinter planting, especially in cold, wet soils, is a great mistake. When planting is done in November there is still a little heat in the soil, of which the roots take hold and so get established, and the same may be said, though in a decidedly lesser degree, at the end of March and beginning of April; but in midwinter the soil is cold and lifeless and the young, tender roots perish, and it takes a long time for the tree to recover from the shock. "H. T. W." also seems to imply that it is a bad plan to move the trees as long as they have the old leaves on them. But we are very often told that, on the contrary, such leaves as are on in November materially aid root action.—D. K., *County Cavan.* [So much depends upon the weather. We should plant now if the ground is not frozen, but perhaps those of our readers who grow fruit will discuss the subject in our columns.—ED.]

Tulips in grass.—I am glad to see this question discussed by Mr. Jacob and others, as the Tulip is so beautiful in grass that it would become extremely popular could it be persuaded to flower and thrive there satisfactorily. I have for years paid much attention to the subject, and I fear that the results of planting Tulips in grass will generally prove highly disappointing after the first year, the disappointment increasing as another year or two pass, as the plants will not only fail to flower, but will often die out altogether. I think the early Tulips are the most vexing in this respect, and that Tulipa sylvestris will, perhaps, give the best results. I have been told that this species is naturalised in some parts of Yorkshire, and I know that it is one of the best for planting in grass, although only a proportion of the plants will yield flowers each year. Some of the Darwin Tulips were largely planted in grass in a large garden I know well; but after a few years hardly any remain of the thousands which were originally planted. I think a little more experimental planting of some of the Tulip species might be more profitable than using the others, which have been tried so frequently with but indifferent results. But our climate seems too cold for such flowers when left out all the year, and the denseness of our turf is probably against them also. Even in the border many good Tulips have but a short life unless they are lifted annually and given a period of rest. I have, however, been struck with the endurance of many of the old Cottage Tulips in the border, and also of some of the descendants of a few of the Old English Tulips that remained after the holocaust which destroyed so many of the old varieties when the tide of fashion set against them.—S. ARNOTT.

THE ROSE GARDEN.

FORTHCOMING ROSES.

NOTES ON SOME FUTURE IRISH NOVELTIES.

THE following notes are based on a visit paid in the middle of August last year to some of the Irish raisers of Roses, supplemented by remarks supplied by them. The time of the visit was at the close of a long spell of dry weather, when the Roses had been forced out by the heat, consequently one did not see the seedlings at their best, and allowance must be made for the apparent lack of size and substance in many of the novelties.

It is surely advisable that substance and size should not be neglected. Doubtless it is desirable that some Roses should be recommended as good for growing under glass; but experience has taught us that a good forcing Rose is not always one of the best for the garden. One generally mistrusts a Rose with this qualification. In the American trade there is, one understands, a great demand for Irish-grown Roses; but a Rose described as a Tea is regarded—unjustly, one admits—as of a delicate constitution. This being so, raisers are naturally tempted to class most of their seedlings as Hybrid Teas, whereby the rapidly diminishing Tea section suffers. Furthermore, since it is well known that in the States the cultivation of Roses is extensively carried on under glass, and their Roses, as a rule, are the best for this purpose, there is an incentive to bring out their novelties. What we want are Roses not only possessing good form, but size and substance as well, supplemented by vigorous, free-flowering garden Roses of branching habit, and both kinds should, above all things, be fragrant.

Rightly, the raisers are giving attention to yellow novelties. We certainly want more of them. It surely ought not to be impossible to raise a worthy successor to Maréchal Niel, now, alas! so deteriorated that one never sees it in the perfection of twenty-five or thirty years ago. But there appears to be a difficulty; the deep self-coloured flower of Maréchal Niel was not suggested in any of the yellow-tinted seedlings it was my privilege to inspect, and they nearly all were deficient in substance.

Teresa, Hybrid Tea (Alex. Dickson and Sons).—Colour apricot orange. Flowers semi-double, with golden anthers. Apparently of good constitution, very sweet scented. An attractive decorative Rose. As seen at Newtownards it was very promising, and was well staged at Holland Park Show.

Duchess of Wellington, Hybrid Tea (Alex. Dickson and Sons).—As seen at Newtownards the colour was deep saffron yellow, inclining to orange as the bloom develops. Flowers thin, but with great depth of petal; fragrant. Like Betty, this variety will occasionally produce a flower suitable for exhibition, but it is more adapted for the garden, especially owing to its distinct and striking colour. Well staged at Holland Park.

F. R. Patsar, Hybrid Tea (Alex. Dickson and Sons).—Colour distinct, creamy buff, with pink shade on back of petals. Flowers well formed, pointed. Wood a bronze green, vigorous erect growth. This Rose, on account of its colour, attracted my attention six years ago. It is not full enough at present to be quite satisfactory.

Mrs. Arthur Munt, Hybrid Tea (Alex. Dickson and Sons). — Colour ivory white, shaded buff. Very free flowering, compact erect growth. Flowers globular, full and fragrant.

Nita Weldon, Tea (Alex. Dickson and Sons).—Colour bright cream, edged blush. Flowers of fair size, deep petalled and full. Will probably be found useful for exhibition. Awarded a gold medal, National Rose Society.

Messrs. Dickson purpose introducing the following novelties in the present year. The descriptions are based on the report of the raisers; the writer does not remember seeing them:

Lady Ilchester, Hybrid Tea.—Colour carmine pink. Very free flowering. Sturdy growth, with thick mildew-proof foliage.

G. H. Hammond, Hybrid Tea.—Colour glowing crimson-scarlet. Strong Rose perfume. Flowers full, good form, imbricated. Growth moderately robust. An exhibition variety, best on maidens.

Walter Speed, Hybrid Tea.—Colour deep lemon, shading to white as the flower develops. High pointed centre, free flowering, fragrant. Growth erect. Stated to be an improved Antoine Rivoire.

Mrs. Hubert Taylor, Tea.—Colour shell pink, edged ivory white. Strong Tea perfume. Flowers well finished, carried on long footstalks. Growth upright, vigorous.

James Coey, Hybrid Tea.—Colour pink, with white-tipped petals. Flowers well formed. Very floriferous, sturdy growth, purple wood, dark green foliage.

Among so many promising seedlings it is impossible to do more than name a few which claimed a record in my note-book. These are as follows:

Mrs. Charles Custice Harrison, Hybrid Tea.—Something after the style of Farbenkönigin, but apparently fuller and more vigorous.

THE CILICIAN SNOWDROP IN A SCOTTISH GARDEN. (*See page 90.*)

S. T. Wright, Hybrid Tea.—Colour creamy yellow. Free flowering. Vigorous growth. Will probably make an exhibition variety.

Fernie Hurst, Hybrid Tea.—Remarkable for its very strong, Holly-like, distinct foliage.

Alexander Hill Gray, Tea. — Colour pale yellow. Flowers deep petalled, fairly full. A very promising Rose. Awarded a gold medal, National Rose Society, last September.

George Prince, Hybrid Tea.—Colour pale flesh. Flowers large, full and well built. At Saltaire last year it was, as a back row bloom, awarded a silver medal for the best Hybrid Tea in the show. A most promising variety, and for which there is probably a gold medal in store.

At Portadown the enterprising firm of Rose-growers, Messrs. Samuel McGredy and Son, is extensively engaged in raising new Roses, and before very long some leading novelties should be expected. My visit of inspection was paid at a time when the flowers were not at their best—in the middle of August, after some weeks of continuous drought. Some allowance must therefore be made for blooms produced in such weather; but the general impression conveyed was that the majority of the seedlings were thin. More fulness was certainly desirable in the flowers then in bloom. The change in the weather, however, had evidently improved the blooms, since five out of the six following novelties gained distinctions at the London exhibitions in September last; certainly a commendable record.

Duchess of Devonshire, Hybrid Tea (S. McGredy and Son).—Colour shell pink. Resembling, both in form of flower and habit of growth; Caroline Testout, of which it is a seedling. A promising variety for exhibition purposes.

Mrs. Wakefield Christie-Miller, Hybrid Tea (S. McGredy and Son).—Colour quite distinct; inside of petals pale cream, outside deep rose. Flowers large. Free flowering. Foliage leathery and apparently mildew-proof. Award of merit, Royal Horticultural Society.

His Majesty, Hybrid Tea (S. McGredy and Son). — Colour dark crimson, something after the shade of Duchess of Bedford. Flowers large, deep petalled, pointed, but apparently wanting in substance. Probably best in cool weather. Fragrant. A distinct variety; attractive on account of its colour. Awarded a gold medal, National Rose Society, in September.

Lady Alice Stanley, Hybrid Tea (S. McGredy and Son). – Colour of petals inside pale flesh, outside coral rose, distinct. Flowers produced on long footstalks, globular and of good substance. Habit of growth similar to Caroline Testout. Fragrant. Probably will prove useful for exhibition as well as for the garden. Gold medal, National Rose Society, in September.

Mrs. Alfred Tate, Hybrid Tea (S. McGredy and Son).—Colour very distinct, but somewhat difficult to describe; orange salmon, with red shading. Flowers well formed, pointed, but lacking in substance, free, and said to be constantly in flower. In form and habit it seems to resemble Betty. As seen at Portadown it was attractive. Likely to prove a good decorative variety. Award of merit, Royal Horticultural Society, in September.

Mrs. E. J. Holland, Hybrid Tea (S. McGredy and Son).—Colour salmon rose. Flowers of the Lady Ashtown type, a variety which it greatly resembles. As seen growing in August the plants were a mass of bloom. Award of merit, Royal Horticultural Society, in September.

JOSEPH H. PEMBERTON.

THE GREENHOUSE.

SEED-SOWING UNDER GLASS.

THE seed of many favourite flowers grown for the adornment of the greenhouse and flower garden should be sown early in the year, and preparation for this work must be made some time beforehand. Clean pots and pans of a suitable size should be in readiness, also a sufficient quantity of prepared soil. If these things are not to hand when the time arrives for sowing the seed, the work is apt to be hurried over and not performed so thoroughly as it should be.

Tuberous Begonias are deservedly popular, and seed ought to be sown at once to produce flowering plants this season. Begonia seed is so minute that great care must be exercised in handling it, and the soil used should be finely pulverised. Ample drainage must be provided, the soil made fairly firm and the surface perfectly even. A good plan is to sprinkle a thin layer of white sand over the surface, on which the seed may be easily discerned as it is carefully shaken from the packets, and an even distribution may thus be secured. Cover the pots with glass and place them in a warm temperature, using a very fine-rosed watering-pot when water is required. The Gloxinia is another favourite which may now be sown, and the treatment advised for Begonia seed is also suitable for raising plants of this showy and interesting subject.

The Bridal Wreath (Francoa), although a long time before flowering when raised from seed, always makes better plants than can be produced from cuttings. Seed sown now will produce nice sturdy flowering plants during the summer of next year. Salvia splendens, a most attractive plant in the autumn, can be raised from seed sown now; the young plants should be transferred to single pots as soon as large enough. Coleus, although mostly raised from cuttings, may be produced readily from seed, and often some very interesting plants are introduced in this way. The same may be said of the Zonal Pelargonium, the Fuchsia and the Chrysanthemum, all of which may now be sown and the young plants potted on as soon as possible.

Dahlia seed will produce plants which will flower abundantly in the autumn, and Michaelmas Daisies are easily grown from seed sown in January in a temperature of 65°. This is a quick way of raising a quantity of these effective plants, and in addition to their use in the borders they are most charming grown as pot plants, especially the dwarf varieties. Cannas are disappointing with many amateurs; but, providing sufficient heat is available, there should be no trouble in raising these plants. A temperature of 70° is needed. The seed of the Canna has a very hard skin, and this should be cut through. In doing this be careful to avoid the slight depression observable in each seed, as this indicates the position of the growing point. Seed treated in this way will germinate in about fourteen days, but without this attention it frequently lies dormant for weeks.

Marguerite Carnations are very beautiful, and when a good strain of seed is secured many of the flowers are almost equal to the best named varieties. The ease with which these can be raised from seed and the short time required for them to develop into flowering plants should induce every lover of the Carnation to grow a batch, either for the greenhouse or the flower garden, or for both.

Sweet Peas may be sown in pots and grown on for planting out, or for the adornment of vases, tubs, &c. Do not sow thickly; three seeds in a 3 inch pot will suffice. Arrange the pots in the greenhouse or frame, place the seedlings near the glass and endeavour to keep them as sturdy as possible. Sweet Peas sown in pots are often allowed to become starved; this should be avoided by repotting them as soon as the seed-pots become evenly filled with roots. Light supports should also be provided when the young plants begin to grow freely.

C. RUSE.

THE NEW WINTER-FLOWERING BEGONIA PATRIE. (*Natural size.*)

CHRYSANTHEMUM ORNATUM.

THE beautiful Chrysanthemum depicted in the illustration on page 90 is supposed to be a native of Japan, seed having been received at Kew from the Tokyo Botanic Garden in 1895. The plants raised were tried in the open ground, but flowered so late they were cut down by frost. Under glass it has proved a useful decorative subject for the cool greenhouse. The plant forms a bush about 3 feet in height and as much through. Smaller plants may be obtained by rooting cuttings late, say, in March or April, and these can be allowed to flower in 6-inch pots. When not in bloom the plants are ornamental, the under-side and the margin of the leaves being greyish white in colour. The flower-heads average 1½ inches in diameter, the ray florets being white and the disc (central) florets yellow. Owing to the distinct greyish white margin to the leaf, this species has been wrongly named C. marginatum, this being a very distinct plant from the one illustrated. The plants require the same treatment as our garden Chrysanthemum flowering during December.

Kew. A. OSBORN.

PROPAGATING HIPPEASTRUMS (AMARYLLIS) BY SEEDS.

[*In answer to a Correspondent.*]

As it is intended to save the seeds, the better plan will be to fertilise the flowers artificially. This should be done in a systematic manner; that is to say, before doing anything the operator should think out the probable result of a combination of the two flowers. In the case of a particularly good flower it is often wise to fertilise it with its own pollen. In this case some of the progeny may be inferior to the parent, while, on the other hand, some may be superior; but one can never be certain, for Dame Nature draws no hard-and-fast line. Artificial pollination of the Hippeastrum is easily carried out, as the organs of generation form a conspicuous portion of the flower. In the case of a flower intended to be cross-fertilised, care must be taken to remove the anthers before they discharge their pollen. When the point of the stigma gets sticky is the time to apply the pollen, which quickly takes effect. This is shown by the flower rapidly fading. Plants now in flower will ripen their seed about the month of June, though in this respect there is a certain amount of individual variation. The seeds may be sown as soon as ripe; indeed, we prefer them treated in this way. Clean, well-drained pans are very suitable for sowing the seeds in, a good compost for the purpose being made up of one part of loam to one part of leaf-mould or peat and half a part of sand. The pans should be filled to within half an inch of the rim with this compost, which must be pressed down moderately firm and made quite level. Then place the seeds thereon at from one-half to three-quarters of an inch apart, and cover with a quarter of an inch of fine soil. Then water through a fine rose and place in a warm house, that is to say, in a structure in which a temperature of 60° to 75° is maintained. Of course, they must be shaded from the sun. The young plants will quickly make their appearance, when the pans should be placed in a good light position but, at the same time, shaded from the direct rays of the sun. They may be left undisturbed till the month of February, when they must be potted singly into small pots, using the same kind of compost as that in which the seeds were sown.

BEGONIA PATRIE.

THIS Begonia will be valued chiefly for its free winter-flowering properties, and viewed from this standpoint it is an undoubted acquisition. It has an excellent compact habit, the rather small flowers being a sort of coppery red colour. It was shown before the Royal Horticultural Society on the 12th ult. by M. Lemoine, Nancy, when it received an award of merit.

THE FLOWER GARDEN.

THE CILICIAN SNOWDROP.

(GALANTHUS CILICICUS.)

TO the admirer of the Snowdrop this chaste flower is always welcome, and in the dull days of winter its appearance is greeted with delight, not only because of the innate beauty of the blossoms, but also because it presages the advent of brighter days with their flowers. Nor can we well have too many forms of the Snowdrop, and anything which will prolong its season will be a gain to many of our gardens.

In the Cilician Snowdrop, which was introduced a few years ago, we have one of much beauty, and one also which anticipates considerably our own "Fair Maids of February," inasmuch as it flowers in the end, instead of at the beginning, of the year, although generally lasting into January. In some seasons, after being established, it flowers in November and December, and when newly imported it should bloom early in November.

Although imported bulbs of Galanthus cilicicus give flowers of variable size and are irregular in their time of flowering, all are so beautiful that they may be added to one's garden with confidence. Like the greater number of the earliest Snowdrops, its flowers are inclined to anticipate the leaves; but in other respects the Cilician Snowdrop much resembles our common Snowdrop, Galanthus nivalis. The deep green leaves are of much beauty, and the drooping flowers of virgin whiteness (except for the usual green markings) are of the highest beauty and grace.

This Snowdrop, which is perfectly hardy, can be purchased from several dealers in bulbs, and should be planted at a depth of from 2 inches to 4 inches or 5 inches. I cultivate it on a low rockery on a level terrace and in soil composed of loam and sand, with some small stones intermixed.

Dumfries. S. ARNOTT.

DOUBLE DAISIES IN POTS.

IT is surprising how many amateurs who possess a greenhouse will lavish any amount of care and labour on some tender plant to coax even an inferior bloom from it, and yet ignore the many beautiful hardy plants that might easily be used for the embellishment of such a structure at a season when flowers are none too plentiful. Such a plant is the common double Daisy, of which an illustration is given. Good plants lifted now with moderate balls of soil, and firmly potted in well-drained pots of a size large enough to comfortably take the ball of the plant and a little new soil, will give excellent results in the near future. It is well to stand the plants in a cold frame for a week or two after the potting before placing them in the greenhouse, and a high temperature and close atmosphere must be avoided.

DAFFODIL NOTES.

SHOWS.—A DIGRESSION AND A LIST.

A LIST of the Daffodil shows that are to be held in the present year of grace may be useful as well as interesting. Although, as far as I can gather, there are no newcomers to be welcomed into the little circle, the extended culture of this popular flower is unmistakably shown in the schedules of all the spring shows, where nowadays a certain number of classes are always allocated to it. It takes the place to-day that two generations back was occupied by the Tulip. Such is the irony of fate. Nay, further, the Daffodil with only one flower on a stem, which George Glenny ("Properties of Flowers and Plants," page 33, Second Edition, 1859) did not consider a fit subject for exhibition, has quite eclipsed her many-headed sisters in the florists' estimation, and the Cinderella of the fifties is the bride of the new century.

But not only has the Daffodil supplanted the Tulip as a show flower, it is doing much the same with regard to the Hyacinth as an occupant of our glass houses and our rooms in the early months of the year. I think the universal experience of dealers in bulbs is that Hyacinth sales are decreasing and that Daffodil sales are increasing. I am sorry for the Dutch, for the Hyacinth is *par excellence* the flower of Holland. It is the flower that they can rear and cultivate better than anyone else. The change must make a difference to them, and the fact that their great bulb organisation is offering magnificent prizes at Vincent Square for Hyacinths must mean that this difference is beginning to be felt. One never likes to prophesy, but if I read the signs of the times aright, their salvation will be the small "miniature" bulbs, if only they can be put on the market at a low figure. They have a gracefulness which is as pleasing as the stiffness of the orthodox big spike is irritating. I am glad to say our own Horticultural Society recognises the importance of what I can only call forced Daffodils, although I can almost hear the disdainful voice of dear old James Walker muttering "forced," should he chance to read these notes.

The great market grower would probably call it opened under glass, but that is rather a vague term, and so I fall back upon "forced"—only, of course, it must be understood by those who are not experienced gardeners that it is one thing to have a Daffodil in flower in March and quite another to have it in January.

A NEW CHRYSANTHEMUM (C. ORNATUM) IN THE GREENHOUSE AT KEW.

Well! there is to be a forced bulb show at Vincent Square on March 9, and Daffodils are sure to be present in large quantities. If the response of exhibitors is anything like what the Royal Horticultural Society hope for, it should be a sight well worth seeing. (Readers, please note the date.)

Coming now to Daffodil shows proper, the following is a list of those which are to be held this spring: Brecon, at Brecon on April 21; Cornwall, at Truro on March 30 and 31; Devon, at Plymouth on April 20 and 21; Glamorgan, at Cardiff on April 16; Huntingdon, at Huntingdon on April 27; Ipswich, at Ipswich on April 21; Kent, at Tunbridge Wells about the third week in April; Lincolnshire, at Spilsby about the third week in April; Midland, at Birmingham on April 22 and 23; Presteign, at Presteign on April 29; St. Keverne, at St. Keverne about the end of March.

A feature of particular interest in 1909 will be the seeing how the new Royal Horticultural Society's Daffodil classification works in practical life. Three societies have adopted it, viz., the Brecon, the Devon and the Midland—enough to give it a good practical trial. I am sanguine enough to fully endorse what the Kent secretary (whose society, it will be noted, has not yet adopted it) wrote to me when he sent his schedule: "I think the new Royal Horticultural Society's list will be a great boon to secretaries, judges and show committees generally." As, however, there are some who do not view it with such favour, I hope to deal very fully with the subject in my next notes. Apart from the necessary alterations that had to be made to bring the old schedules into conformity with the new classification, there is, on the whole, very little change in any. Brecon and Glamorgan still cater for the splendid local competition which is their distinguishing feature; Truro and Plymouth will again be pictures of neatness in their excellent staging arrangements, and Daffodils will have as competitors great masses of Rhododendrons and flowering shrubs; Birmingham will once more be full of beautifully dressed *débutantes* and Daffodil Lords (Royal Horticultural Society's deputation) will be there to see; St. Keverne, in far-off Cornwall, will gather her children and her parents under her wing for a pleasant afternoon of tea and flowers; Spilsby will be the same successful Daffodil show; Huntingdon will make another advance in size and favour; Ipswich—decorative Ipswich—with its ample provision for the ladies, will, I hope, be the rendezvous of a large array of peaceful suffragettes to admire their sisters work, and see the Daffodils and pot plants of their neighbours; Presteign, in Mid-Wales, will once more be a sort of working model of a go-ahead small country show; while Tunbridge Wells, favoured with a more genial fortnight before her show, will find that her old exhibitors have returned, and that the residents of the old watering-place have begun to appreciate the rich floral treat that is provided for them. With such a list of shows exhibitors of Daffodils ought to have plenty of scope for displaying their flowers to the best advantage, the diversity in the dates being an advantage rather than otherwise. In any case we may safely expect some excellent exhibitions, which all lovers of the Daffodil should make a point of attending, and thus help in a practical manner the various committees in the work they have undertaken, and which will have an influence for good on the culture of spring flowers in general.

JOSEPH JACOB.

THE FRUIT GARDEN.

FRUIT NOTES.

RENEWING SUPPORTS.—One of the most important of the many details connected with the culture of fruit is the efficient support of the trees, for if they are allowed to swing too freely in the wind the roots must inevitably be more or less seriously damaged, with the natural result that the progress is far from being what it ought to be. It is not only imperative that the trees shall have proper stakes placed to them when they are first planted, but that these shall be maintained in perfect condition until such time as the strong anchor roots have secured sufficient hold to prevent the tree moving. Thus it becomes an annual necessity to carefully examine all the stakes attached to the trees, and should a tie be defective it must be instantly replaced by a new one, while if it is the stake itself that has perished or is weakening at the base, this should be immediately removed. In the latter event it is always wise to insert the point of the new stake into the hole made by the preceding one and thus preclude the possibility of any material damage being done to the roots. For attaching the stem to the stake there are now several serviceable devices on the market; but the old form of a piece of sacking or other protective material to prevent rubbing and then stout tar or other string answers well provided that the ligatures are not allowed to become harbourages for the various pests which visit the trees.

FINAL WINTER WASHING.—It will not now be long ere we shall see abundant evidences of vigorous activity in the roots, and as soon as the buds commence to swell freely there is invariably an element of danger in the application of any wash that must be dressed on with a brush The caustic soda washings are so advantageous that the grower who follows them up properly reaps a substantial reward, and if it is thought that another one would do good this season, let the work be immediately put in hand. No effort must be spared to ensure the bristles of the brush reaching right into all crannies and crevices, for it is in such positions that the enemies delight to ensconce themselves. To apply on the rougher parts of the bark through a sprayer does a certain amount of good, no doubt; but it can never prove fully effectual, as the liquid will not reach the protected pests. To the more inaccessible portions of the trees the wash must be directed in the form of the finest possible spray or film, as in this state it hangs on to everything that it touches, whereas if it is coarse much of it will run down the stems and do little, if any, good.

SURFACE SOIL.—To a perfectly natural fear of doing serious injury to the fine roots situated near the surface must be ascribed the fact that many people hesitate to do any cultivation at all, and allow the soil above the roots of their fruit trees to settle down into a solid mass impenetrable alike to moisture and air. This state of affairs is by no means conducive to continued success, for the roots are driven gradually deeper and deeper until they are so low that they are beyond the control of the grower entirely. If the trees are to remain in excellent condition it is necessary that the surface shall be kept loose, and to this end it should be lightly pointed over with a fork as frequently as may be deemed desirable or as is convenient. There is absolutely no danger of doing harm, provided that the tines of the fork are only put in 2 inches or so, and the looseness thus created will be of substantial benefit in encouraging the free admission of the essential air and water. Of course, if the operator takes a spade and digs to a depth of 1 foot many roots will be broken, but even this may be regarded as preferable to having the surface as hard as the proverbial macadamised road.

LATE PLANTING.—Whenever the weather is favourable and the state of the soil will permit of it, the planting which still remains to be completed must be pushed forward with the utmost speed, as the sooner the roots are in position the better will the progress be during the first season. In no circumstances must the work be scamped—do it well if the finest results are desired. FRUIT-GROWER.

THE KITCHEN GARDEN.

BRUSSELS SPROUTS AND THEIR CULTURE.

THIS useful vegetable requires a long season of growth, and in order to secure this some seed should be sown early in February. I prefer raising the first batch under glass, not necessarily in heat, but in a frame or pit, and if only a small quantity be required they may be raised in a box, which can be placed on a shelf in a cool house; but if a large quantity is needed a light or two should be set apart for them. As soon as the position has been selected sow the seed on some fine soil, loam and leaf-mould mixed in nearly equal quantities, or soil from the potting bench will suit them admirably. Sow thinly, so that the seedlings will not be crowded, or they will be weak, and cover over slightly with soil that has been put through a small-meshed sieve. Admit air when the weather is mild and dry. After the seedlings are up and large enough they should have more air, drawing the lights off every day when the weather admits of so doing. When large enough they must be pricked out on to a warm border, under a wall or hedge, into soil similar to that in which the seeds were sown. They should be allowed 4 inches or 5 inches from plant to plant, in which space they will make nice sturdy specimens. When they have filled the allotted space they can be planted out where they are to stand. The plot ought to have been well manured and deeply dug or trenched the previous autumn and left rough, and the soil should now be forked back on dry days, taking precautions not to trample on the ground in wet weather. On a convenient day mark out the rows 3 feet 6 inches or 4 feet apart, take up the plants with a trowel, so that each has a little ball of earth and roots, and plant 1 inch deeper than they were before, and the same distance apart as in the rows. Make them firm by pressing the soil down round them with the hands, and after the planting sprinkle a little mixture of soot and lime round each plant as a preventive against the ravages of slugs and worms.

I have tried many varieties, and have found none better than Carter's Perfection, Sutton's Perfection and the Aigburth, the last-named being a later variety and exceptionally hardy. A general sowing may be made about the middle of March, but after that time, unless we get exceptionally kind weather, they do not get large enough to pay for the trouble, as these plants should have a stem 3 feet 6 inches to 4 feet in length to make them really profitable. Brussels Sprouts will stand any amount of feeding in a hot summer. It may be thought by some that the space advised is too much, but plants grown under these conditions will fill up the ground entirely.

It is also a good plan to put out some early Potatoes between the rows, such as First Crop or Early May, and these can be taken up quite early and without injuring the Brussels Sprouts. I have done this repeatedly, and with good results. A crop of Potatoes such as this is useful to take up early in the season and put in tin boxes and bury again for use as young or new Potatoes at Christmas. W. A. COOK.

Leonardslee Gardens, Horsham, Sussex.

A FINE POTFUL OF DOUBLE DAISIES.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

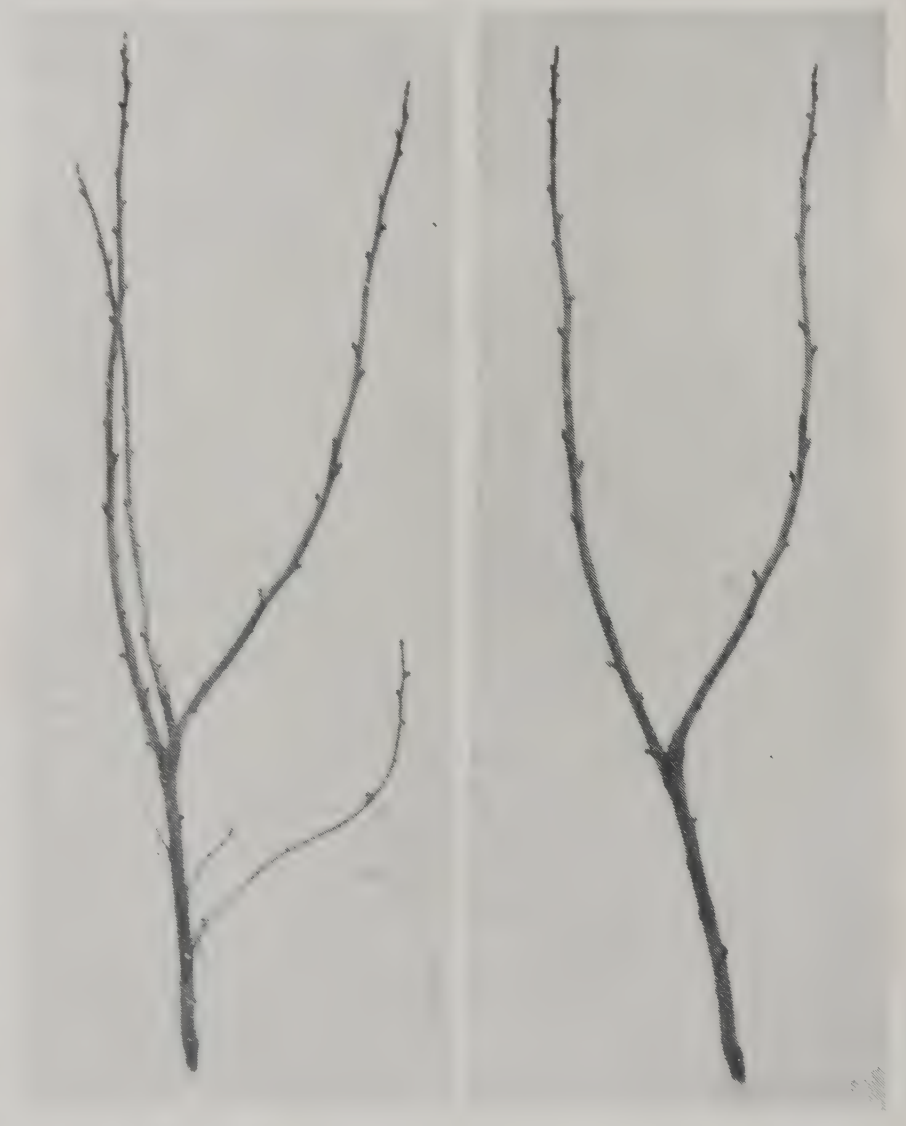
FLOWER GARDEN.—Under this heading the rockery may safely be included, and the present is an excellent time to give many of the occupants a little attention; but the wise gardener will refrain from dealing with any of the work while the soil is frozen. During open weather, however, there will be much planting to be done, and top-dressing will also be an important feature. It will be found that in many instances the heavy winter rains have washed much soil away from the roots of plants that are growing in elevated positions; consequently this must be replaced if the plants are to give us their very best returns in the way of flowers or foliage, or both. Owing to the great variety of plants grown in rockeries, their demands as to soil mixtures will, of course, be widely divergent, hence it is of little use advising any particular mixture where space is limited. Each kind must have the soil which experience has taught us they prefer, and the best materials only should be employed, working the soil firmly into the crevices and well among any exposed roots encountered. Birds are frequently troublesome with early flowers on rockeries, and their depredations must be stopped by means of black cotton stretched from sticks some 4 inches to 6 inches above the flowers. This is at once effective and inconspicuous.

Greenhouse and Conservatory.—Continue the repotting and top-dressing of foliage plants as advised last week, as the sooner the work is completed the better. When these are finished, other specimen pot plants may be started, and all such work ought to be finished by the middle of March. The present is an excellent time for sowing seeds of such plants as Torenias, Rhodanthes, Browallias, Celosias and Cockscombs, Verbenas and other subjects that will make the greenhouse gay in late summer and autumn. All those named do well in pots 5 inches in diameter, and it is usually best to sow the seeds thinly direct into these, except in the case of the Celosias and Cockscombs, which should be sown two or three seeds in a 2-inch pot, eventually thinning the seedlings to one in each pot, these being moved into larger sizes as growth commences. The other plants may be thinned to three, four, or five in each pot, and be thus allowed to grow and flower. Use good soil composed of loam, two parts; well-decayed manure and coarse sand, half a part each.

Vegetable Garden.—In open weather this department will be getting a busy one, as there will be much in the way of seeds to sow, or, at least, beds to be prepared for their reception. A sowing of Radishes may now be made with fair prospects of success. Make the surface of the bed fine and even, and then scatter the seeds rather thickly broadcast, raking them well in afterwards. When the surface has dried a little it should be trodden moderately firm, as this prevents, to some extent, birds scratching out the seeds. Of course, where the soil is naturally heavy and wet it will be useless to sow yet. The reason rather thick sowing is advised is that at this early period of the year germination is very slow, and many of the seeds or seedlings are devoured by birds, slugs or other garden pests. On well-drained soils Onions and Lettuces may also be sown. The bed for the first named must be made firm, and the seeds should be sown rather thinly in drills 1 inch deep and 15 inches apart. Lettuces may either be sown in rows where they are intended to grow, thinning the seedlings early, or in beds, from whence the plants are derived for transplanting later. I prefer the former method at this season, and always sow rather thickly. By this method early salad in the form of young Lettuces is obtained from the thinnings. A sowing of Brussels Sprouts and Cauliflower should be made under glass, using shallow boxes filled with good soil for the purpose. The seedlings must, however, be kept near the glass and have an abundance of air from the commencement.

Fruit Garden.—The pruning of Currants should be proceeded with as rapidly as possible, and any staking or nailing of trees not yet done must be completed without delay, as the buds will soon be bursting, after which such work is almost certain to be dangerous to the well-being of the trees. Where canker is present in Apple trees, the wounds should be pared out clean and right into live tissue, then coated over with tar, Stockholm for preference, although ordinary coal tar answers very well. Very badly-infested branches will be best cut clean out from the tree.

H.



1.—SMALL BRANCH OF A BLACK CURRANT BUSH BEFORE BEING PRUNED. NOTE THE WEAK GROWTHS TO BE CUT OUT

2. THE SAME BRANCH AFTER PRUNING HAS BEEN DONE AND SHOWING THE GROWTHS RETAINED.

PRUNING BLACK CURRANT BUSHES.

Bush fruits, of which family the Black Currant is a well-known member, are grown in most gardens that are a few miles removed from the densely-populated areas of most towns, and this fact proves most conclusively that they are very popular; but how seldom is their treatment properly understood! Our concern now is to assist the beginner in pruning his Black Currant bushes. It is common in many gardens to see not a few worthless old bushes of Black Currants, and very few younger ones to succeed them. It is not easy to give a reason for this, especially as their culture is not in the least difficult to understand and carry into effect. We fear this failure may be largely attributed to want of application by the grower or hesitancy in using the pruning knife freely when the pruning period comes round. The best Black Currants are produced on bushes that are somewhat drastically treated in this respect. It is not possible to bring into being profitable bushes by a mere thinning out of the growths. Foreshortening or cutting back growths that are exhausted by age is the treatment that is necessary, and in carrying out this very necessary work a beginner may have a fear of damaging the future prospects of his trees. Why such a view should be held it is difficult to understand.

In the summer succeeding the planting of cuttings, each one should emit three or four shoots, and in this way the foundation of useful bushes will be created. These one year old bushes will have to be pruned the following year, preferably in late January or early February. The growths of the previous summer must be shortened back about half their length, and this will have the effect of causing two or three fresh growths to develop on each of the original shoots.

Having thus dealt with the pruning of Black Currant bushes up to their second year, it is necessary now to show how to treat them in subsequent seasons. Assuming the young trees were pruned and cut back as we suggested above, their future treatment should not be a very difficult matter for the novice to understand. It may be well here to remind readers that they not seldom purchase their bushes from the nurseryman when they are about three years old, so that our remarks will apply especially to such specimens. To simplify the question of pruning we have severed a branch of a Black Currant bush, to show the method of dealing with each branch, which will, of course, apply to the bush as a whole. Fig. 1 shows a small branch with three or four shoots of varying worth. The inexperienced grower would probably be disposed to permit each of these shoots to remain, as they do not appear to be overcrowded. We have to remember, however, that when the bush is in full leafage, very little sun and air could get among the growths were they left undisturbed, and as these two influences are so highly beneficial to both bush and fruit a thinning out of the growths is absolutely essential. For this reason the less important and undesirable growths are cut out. Fig. 2 shows the same growth as represented in Fig. 1 after the pruning is completed.

In pruning Black Currants we have to remember that new shoots are retained and old branches and weak shoots cut out. A severe pruning pays, as a greater weight of fruit will be produced by these means. We prefer bushes that have branches starting from the base, rather than those on a stem as is encouraged with the Red and White Currants and Gooseberries. Fig. 3 represents a section of a large bush and illustrates the character of Black Currants when they are

3.—SECTION OF AN OLD BLACK CURRANT BUSH BEFORE PRUNING.

not severely dealt with. The reader will note the large number of weak, undesirable growths that have developed and how, if neglected another season, the chances are that the bush will be in a much-enfeebled condition. We have endeavoured to show in Fig. 4 the treatment such a bush should receive. Note the numerous shoots that have been cut out, and the more capable appearance of the bush as a consequence. We might have treated it to much more drastic pruning, but for ordinary purposes the system of thinning out the older and less promising growths will suffice. All straggling growths should be cut back to well-placed shoots nearer the principal stems, as this tends to strengthen the centres; at the same time it prevents the bushes from overhanging one another.

The culture of Black Currants is simple enough. They delight in being fed with pig or cow manure of the richest kind, and a dressing of fish manure gives a splendid impetus to their growth. A heavy dressing of manure should be dug in during the winter, and the surface soil levelled down in early spring. Plant Black Currant bushes fully 5 feet apart, and give them a quarter in the garden where the soil is rich and lasting.

A GOOD ROSE FOR AMATEURS.

Now that so many good new Roses are being raised and put on the market, there is a danger of some of our old and worthy varieties being overlooked and neglected, hence one may perhaps be pardoned for drawing attention to the old and well-tried Gloire de Dijon, which has several very strong points in its favour. Owing to its robust habit it can be successfully grown by the earliest beginner in gardening, and it will thrive where most other sorts would fail to exist. Then there is its long season of flowering. Unlike the new army recruit who was reputedly the last on the battlefield and the first off, this Rose is almost, if not quite, the first to give us blooms, and the display is usually continued until severe frosts put a check on outdoor vegetation in general. H.

HOW TO RAISE TENDER AND HALF-HARDY ANNUALS.

MUCH more pleasure is derived from one boxful of seedlings well grown than from ten times the quantity improperly treated. Every spring one sees scores of boxes of puny seedlings which are quite unsuitable for planting in the flower garden. In the first place, the seeds are sown too thickly, and in the second the resultant seedlings are not duly transplanted and they quickly become stunted and practically useless. In the following table hints are given on the raising of some of the choicest kinds of tender and half-hardy annuals suitable for the flower garden.

Name.	*How to Sow.*	*When to Transplant.*	*Distance Apart.*
Asters	Pans and boxes	1in. high	2in.
Ageratum	,, ,,	1in. ,,	2in.
Browallias	,, ,,	1in. ,,	2in.
Clintonia elegans	,, ,,	1in. ,,	2in.
Ice Plant	,, ,,	1½in. ,,	2½in.
Lobelia	,, ,,	½in. ,,	1in.
Nemesia	,, ,,	1in. ,,	2in.
Nicotiana	,, ,,	1in. ,,	3in.
Phlox Drummondii	,, ,,	1in. ,,	2in.
Portulaca	,, ,,	¾in. ,,	1½in.
Ricinus Gibsonii	,, ,,	2in. ,,	4in.
Salpiglossis	,, ,,	1in. ,,	2in.
Stocks	,, ,,	1in. ,,	2in.
Tagetes	,, ,,	1in. ,,	2in.
Tropæolums	,, ,,	1½in. ,,	2in.
Zinnias	,, ,,	1in. ,,	2in.

The Soil.—This is very important. All the seeds, with the exception of those of Ricinus and Tropæolum, are small and require a light, gritty compost. Sandy loam two parts, leaf-soil one part and sand or road-drift one part form a suitable mixture, which must be passed through a half-inch-mesh sieve.

The Temperature and Time of Sowing.—A warm greenhouse or a hot-bed frame should be utilised for the raising of the seedlings. The most suitable time to sow the seeds is the end of February or early in March. The distance apart given for the transplanting is suitable for the first shift. The seedlings must be transplanted once more in coarser soil and still further apart before they are finally planted out in their flowering quarters. A good time to finally plant is, in the Southern Counties, early in June; in the Northern Counties, about the middle of June. SHAMROCK.

THE TOWN GARDEN.

THE DIVISION FENCE.—Between the lawn and flower garden and the vegetable ground the owner or occupier generally likes to have an ornamental fence or hedge. There are several ways of making ornamental fences for this purpose. Of course, ordinary hedges will do very well; but where these do not already exist, some rustic fencing may be erected and covered with various climbing plants. Evergreen flowering shrubs, too, are quite suitable, and for these a rustic fence is not necessary. Roses show to great advantage in such positions, and also Clematises, Honeysuckles, Jasmines and similar kinds of climbing plants. The strong-growing Roses must be planted, such as the following: William Allen Richardson, Gloire de Dijon, Bouquet d'Or, Cheshunt Hybrid, Mme. Berard, Crimson Rambler, Dorothy Perkins, Lady Gay and Lord Penzance's Sweet Briars. Some arches must, of course, be constructed, and over these the branches of the climbing plants put in near them may be trained. Roses over one arch. Honeysuckle over another and Clematises over a third would all look very beautiful; the approach to the vegetable ground would then be rendered exceedingly attractive.

THE BORDER IN FRONT OF THE FENCE.—In every garden there would not be space for a border of flowering plants, but in others there would. Clumps of herbaceous plants would look best, as all danger of formality of arrangement must be avoided. The rustic fence, laden with beautiful foliage and flowers, would form a charming background for a rich border display of flowers in front. Weigelas, Lilacs, Flowering Currants, Escallonia macrantha, Hibiscus syriacus, and the following berry-bearing shrubs may be planted in place of climbing subjects where the latter cannot be put in: Arbutus, Aucubas, Berberis, Euonymus europæus, Pernettya, Thorns (Hawthorn), Skimmias and Viburnum Opulus.

HERBACEOUS PLANTS FOR THE BORDER.—Alyssum saxatile compactum, Armeria Cephalotes rubra, Anemone japonica alba, Chrysanthemum maximum, Doronicums, Achilleas, Helianthuses, Irises, Gaillardias, Phlox, Heleniums, Rudbeckias, Pyrethrums (single and double flowered), Pyrethrum uliginosum (the last named being splendid for growing in poor soil), Tritomas, Veronicas, Solidagos and Spiræa Aruncus. All of these grow freely, and many of them form a screen in themselves during the summer months.

DIGGING GROUND FOR FLOWERS.—There is no doubt that autumn digging of soil for flowering plants is as beneficial as it is for vegetables and shrubs, fruit trees and other plants; but it is not always convenient to do the work in autumn. Lose no time now in getting all the vacant ground dug which is intended for flowers. Manure may be put in, and ought to be, if the soil is of poor quality; but where it is not convenient to add manure at the present time, deeply dig nevertheless, and leave the surface portion in a rough, lumpy condition. In due course the soil will become loose and fall down nicely, forming a capital seed or planting bed suitable for annuals and summer bedding. If the cultivator delays the work of digging and trenching until the seed-sowing or planting time comes, the work necessary then cannot be as easily or as satisfactorily carried out.

PREPARATIONS FOR SEED-SOWING.—Many gardens in towns are made beautiful every year with annuals chiefly. There are some charming kinds of tender, half-hardy and hardy annuals, and all are to be obtained at a small cost, both as regards seeds and labour. Preparations must now be made for the sowing of the first two sections—the tender and half-hardy kinds. New turfy loam and leaf-soil are never too plentiful in town gardens, but both ingredients are absolutely necessary in order to make up a suitable compost for tender seedlings. So much depends upon strong seedlings, and it is well worth while to go to a little extra trouble and expense in the matter of soil in which to raise them. Even a small quantity will be sufficient for raising quite a large batch of young plants.

4.—THE SAME SECTION OF AN OLD BUSH AS SHOWN IN FIG. 3 AFTER PRUNING HAS BEEN DONE.

Procure the necessary quantity for filling several pots and boxes for the seeds to be sown in, and also for the transplanting of the seedlings afterwards, prior to their being removed to their final quarters in the flower-beds. In the meantime also make ready the pots and boxes and build a small hot-bed whereon to place a frame if there is not a greenhouse available. In due course some cultural hints on the most suitable kinds of annuals for town gardens will be given in this column. AVON.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

PLANTING.—Whenever the weather and the condition of the soil are suitable, push along the planting of shrubs, Roses and other plants. See that the stations for the more choice kinds are properly prepared. The drainage is a most essential item in connexion with specimen plants. Azaleas and Rhododendrons grow freely in a rather peaty soil with plenty of grit, and in the absence of peat, sandy loam and leaf-mould may be used. Beds of these when in bloom make a very pleasing effect in the flower garden and in open spaces in the woods, for which purpose they might be more extensively planted.

Herbaceous Borders.—If there are still alterations to be made, the work ought not to be delayed. In all cases the ground should be well trenched, and if of rather poor texture, manure, wood ashes and any other suitable materials obtainable may be added to it with advantage.

Geraniums for bedding-out purposes which have been grown and stored in boxes may now be shaken out and potted off, if singly so much the better, but where pot room is scarce put two plants in a 3-inch pot. Use rather fresh, sweet soil if procurable, so that the plants may grow healthy and sturdy. Pot rather firm and stand the plants in newly-started vineries or similar houses where the heat is sufficient to give them a good start. Keep all the different varieties separate and correctly named, also a list of the quantity potted.

HARDY FRUITS.

As the season for fruit tree buds to burst is fast advancing, any dressing which still remains unfinished ought to be no further delayed. If the trees are badly infested with scale and other insects, a gentle spray with caustic alkali of the strength recommended on the tins will prove very effectual. Use gloves when applying the mixture and take advantage of fine mornings.

Strawberries.—Those who plant a bed of Strawberries annually with plants which have been forced, and destroy the old ones, should have the land prepared in readiness some weeks before the planting is done. Trench deeply and have an abundance of manure well incorporated with the soil, especially if the land is light. A moderately deep loam will require very little attention compared with deep, cold soil. Lime rubbish, wood ashes and road scrapings will be found very beneficial in keeping the land more porous and suitable for the growing of good fruits.

Nuts.—These may be pruned at any time from now onwards. Spur back all side branches and shoots not required, and endeavour as far as possible to keep the main branches clothed with twiggy fruiting wood. Remove suckers and soft coarse growth, and leave ample catkins for fertilising the tiny pink female blooms. Nut bushes are usually trained basin shape, the centres of the young bushes being kept well open, and for this purpose always cut the leaders to a bud pointing outwards. Those intending to embark in Nut growing ought to pay a visit to some of the Kent fruit farms.

VEGETABLE GARDEN.

French Beans.—Continue to make fresh sowings of dwarf Beans. Use 7-inch or 8-inch pots for the present, sowing about eight seeds in each pot. Let the soil consist of loam and decayed manure or leaf-mould. Stand the pots in a warm temperature to hasten germination, and then keep the plants near the glass. As soon as the plants are high enough they should be supported by small, twiggy pieces of Birch, Hazel or similar wood. Those in bearing will be benefited by weak liquid manure. Beans later do well planted out in beds or in suitable boxes; grown thus they produce heavy crops.

Cauliflowers.—Prick these off as soon as they are ready into rather shallow boxes, using an open soil; this applies also to Cabbage plants, Lettuces and Onions. If not done early, the plants get drawn and frequently damp off at the collars. Sow

Lettuce somewhat thickly in boxes to produce tender leaves for salads. These will be found very useful if the main stock in frames or outside is short.

Chicory.—Take up in quantity to meet the demand, pot them, and stand the pots in a dark, warm place. We employ 10-inch pots and plant the roots thickly. H. MARKHAM.

(Gardener to Viscount Enfield.)

Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

VEGETABLE DEPARTMENT.

CAULIFLOWERS.—Seeds of an early variety, such as Emperor, Snowball or Early London, may now be sown in a box of soil and placed in warmth. Germination will take place in a few days, and care should be taken that the seedlings do not become drawn through excess of heat or want of exposure to the light. Plants from the autumn sowing which have been wintered in cold frames will also require attention, by having bad foliage removed, more space afforded, or perhaps repotting or reboxing as growth commences. Plenty or air must be given to maintain sturdiness and to prevent the plants getting too forward before the time arrives when they can with safety be planted outside.

Broad Beans.—These being quite hardy and almost proof against wet, may be sown outside at any time. Early Mazagan is small-podded and precocious, hence suitable for an early dish. Early Longpod is probably the best Broad Bean for general cultivation. The plants from the autumn sowing which are now appearing above ground may have soil drawn to them on either side, and a few evergreen sprays placed firmly between the rows are a protection from sweeping winds.

Peas.—The wrinkled Marrowfat types of these are scarcely safe for sowing in the open until the middle of March, except upon warm, light soils. To forward the crop pots or long shallow boxes may be requisitioned, which, when soil and seed are committed to them, may be placed in a cool house or frame, where the plants receive almost natural conditions in respect to air and temperature. Round-seeded Peas are less susceptible to damage by moisture, and such may be sown in the open whenever the soil is in good working order. As a precaution against vermin the seeds may be damped and sprinkled with red lead. Varieties for the different seasons are numerous; among very dwarf sorts William Hurst and American Wonder are favoured. Chelsea Gem, a reputedly dwarf variety, but which in Scotland usually attains a height of 30 inches, leaves but little to be desired for a first crop. The soil having been manured and dug may, when dry, be broken down with a fork, and drills drawn at the distance apart to which the plants will grow in height. The foregoing being carried out upon a south border, a row for succession may at the same time be sown upon open ground, and for this William the First is very suitable, although there are many other sorts of more recent introduction that are favourites, and perhaps equally reliable, according to the climate and situation.

Spinach sown between lines of early Peas tends towards the full utilisation of a valuable site, and the shelter thus provided is helpful to the production of a crop of early and succulent leaves.

Carrots, Parsnips, Parsley and a few other seeds that germinate slowly may be sown in small quantities when the soil is in good condition.

PLANT DEPARTMENT.

Chrysanthemums.—As the earlier cuttings become rooted, repotting should be carried out, more particularly if several plants are confined to one pot. With single plants this is scarcely so urgent, but even these should not remain until the roots are very much entwined. Clean pots in various sizes, and a compost of two parts loam to one of leaf-soil, with sufficient sand added to render the whole in free working order, is ample, and better than manure of any sort. Late-flowering varieties, or any others from which cuttings could not be obtained previously, may now be prolific in this respect. Cuttings inserted now are best placed three in each pot, and when rooted repotted without separation; thus grown to the flowering stage, useful plants for decoration and flowers for cutting are produced. The propagation of plants for bedding purposes or for flowering in pots in early autumn should be undertaken as cuttings become fit. Any shoots that have been upon the plants all the winter should be discarded, as such seldom emit roots freely. The clearance of these and of any decaying matter, followed by a surfacing of rich soil and an increase of temperature, will result in speedy and, for the purpose, abundant growth.

Carnations planted in autumn should be examined occasionally and have any diseased or decaying leaves removed; and should frost have caused any disturbance at the roots, the same must be made firm again by being trodden around when the soil is dry.

Winter-flowering Carnations.—Many of these will now be past the flowering stage, and propagation for another year, if not already commenced, may be proceeded with. A small frame or hand-light placed within a house where a temperature of 55° to 60° is maintained, and a few inches of fibre, leaf-mould or ashes for a bed and to retain moisture, answers well. A light, open soil is necessary, and small pots to accommodate one cutting each, or larger for several, may be used according to space at command and the numbers required. Clean, healthy growths should be used for cuttings, and these, being severed immediately below a joint, may then be split for an inch or more to facilitate the rooting process. If the foliage is unduly long the points may be reduced. Being well watered and allowed to drain, the pots may then be placed in position and the frame kept close, in a general way, until growth movement in the cuttings indicates that roots are formed. JAMES DAY.

(Gardener to the Earl of Galloway.)

Galloway House, Garlieston, Wigtownshire.

NEW ORCHIDS.

CYPRIPEDIUM LEANDER EXHIMS VARIETY.—This is a beautiful form of a popular Lady's Slipper, the large dorsal sepal being the most conspicuous feature. This is nearly all white with the exception of a small green patch at the base, this green and white being dotted freely with the usual dull carmine. The petals and labellum are rather small and of a dull brownish colour, the first-named being edged with bright green. Shown by J. Forster Acock, Esq., Exhims, Northchurch. Award of merit.

Lælio-Cattleya Goldfinch superba.—This is an improved form of Goldfinch, and the flowers are certainly most handsome. The medium-sized sepals and petals are of a rich clear golden colour, the labellum being rich velvety carmine. The plant shown was carrying six fully-developed flowers, and formed a most ornamental specimen. Exhibited by Lieutenant-Colonel Holford, C.I.E., C.V.O., Westonbirt, Gloucestershire. Award of merit.

Odontoglossum × *ardentissimum Phœbe.*—This forms another admirable addition to the highly-coloured Odontoglossums which have found so much favour during the last few years. The flowers are of ordinary form and size, but the colouring is a sort of dull purplish red, each segment being edged with pure white. The colour markings are very regular and distinct. Shown by N. Cookson, Esq., Wylam. First-class certificate.

A VALUABLE PEAR FOR AMATEURS.

THE amateur is frequently in a difficulty when about to plant Pears, as often there is not room for a number of varieties, and the very best, both as regards crop, quality and free growth, are required. I do not know of any variety that is superior in all respects to the one illustrated, Louise Bonne of Jersey. It rarely fails to crop and the quality is little inferior to the Queen of Pears, Doyenne du Comice. Grown as a pyramid it is excellent and few varieties give a better return. The tree is of a compact habit, and grown thus or in bush form it is most handsome in any stage of growth.

For many years this fruit has been a great favourite in the market and it has few equals in this respect. I would also advise those amateurs to grow it as a cordon who cannot grow it otherwise. Grown thus it gives very fine fruits on a west or south wall in exposed gardens. For some years I had in the northern part of the country some splendid trees of this variety grown alongside of some walks to divide a fruit garden from a tennis lawn, and the trees grown thus cropped grandly and gave little trouble. The fruit is above medium size and very handsome, the skin being smooth, yellow on the shaded side and a rich crimson on the exposed side, with russety dots. The flesh is white, rich and remarkably juicy, with a decided vinous flavour. The variety does best grown on the Quince stock in a well-drained soil. If the latter is very heavy, I would advise a raised border. I have also seen splendid results with this variety grown on an east and even a north wall near the coast in the Southern Counties. It is an early autumn variety —October and November. G. WYTHES.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

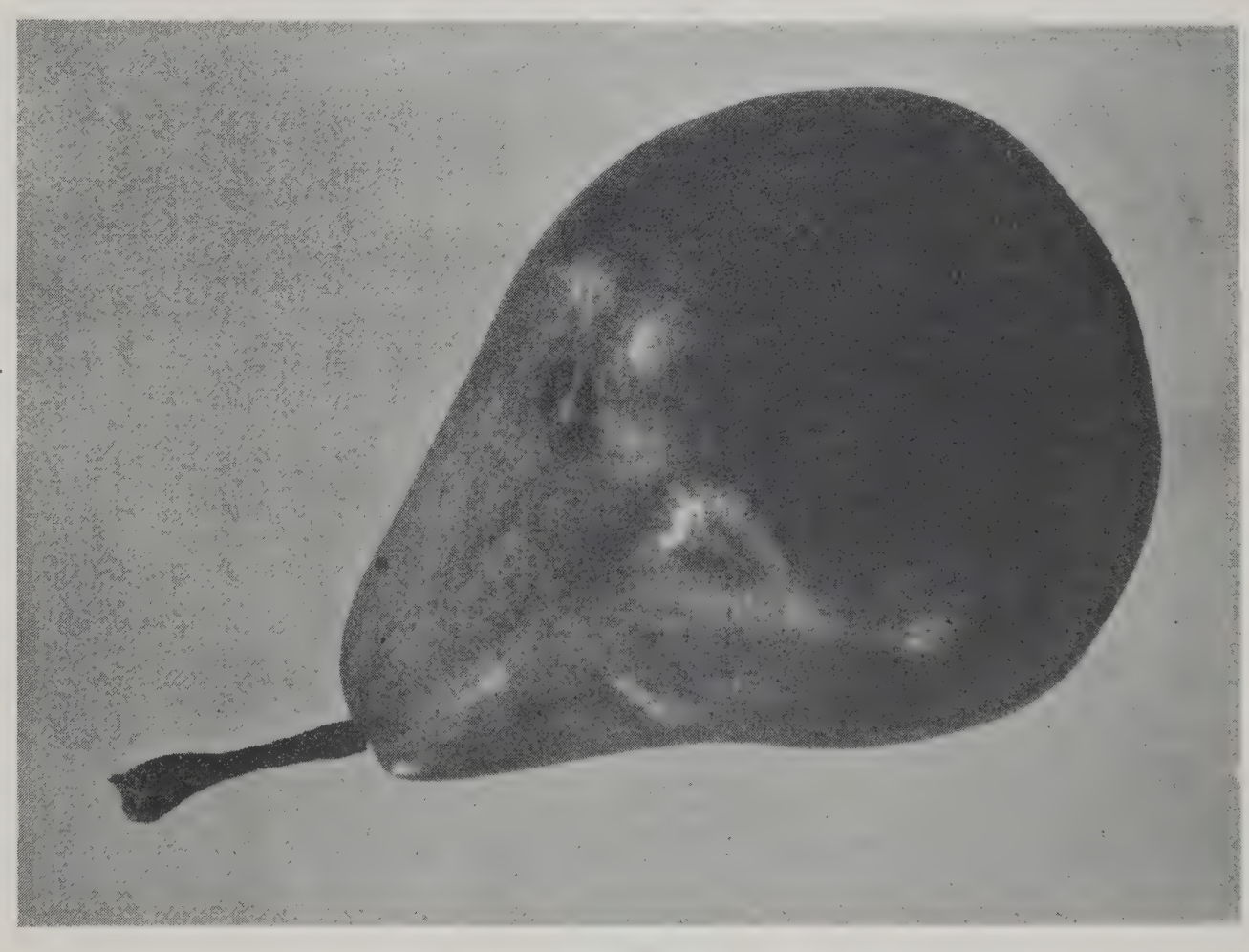
FLOWER GARDEN.

Ornamental water (*Manx*).—The declivity in the lawn would afford an excellent opportunity for a permanent piece of water, provided the latter would not be out of keeping with the general surroundings. What might be done in the circumstances would depend very much upon your own desires. In any case, if you desired to grow Water Lilies a water-tight pond would be a necessity. This might be made with clay or concrete, first excavating the depression to a sufficient depth for the purpose. In a district where the subsoil is sand or gravel the making of a water-tight pond is of first importance, and particularly so in your case, where the pond is not fed by a natural stream, but from the ordinary channels of supply. If your garden rests on a clayey subsoil, it will be a more simple matter to make the pond area secure by puddling the sides and bottom. If the idea is to grow some of the choice Water Lilies, a depth of not less than 2 feet of water would be required at the centre and a lesser depth near the shelving sides. This could first be formed by excavating, puddling with a good thick layer of clay and, finally, coating all with concrete and cement. An informal piece of water should afford much pleasure if properly conceived and carried out.

Violet plants sickly and not flowering (*Mrs. Bowman*).—We suspect that the substance was placed in too close proximity to the roots of the Violets. The best thing to do now will be to take up the plants and replant in fresh, sweet soil. They will probably come round and flower in spring. The reason why your strong plants do not flower now is because they were allowed to flower in the summer. Every flower-bud should be picked off in summer before it has a chance to open. They will no doubt flower again in spring. The bulbs planted in the grassy glens will, we hope, flower freely a little later on. They are always rather late in doing so the first season after planting. No doubt the warmth of the room has hastened the flowering of those in the window. Those in the cold greenhouse will flower later on and possibly produce finer blooms. If you wish to hasten the flowering of some of the backward bulbs, the best way will be to place them in the window or the warmest corner of the greenhouse. Pæonies have such thick roots and are such voracious feeders that nothing else that we know will succeed well in close proximity to them. You might try summer and autumn flowering Chrysanthemums.

Gladioli diseased (*M. H. S. N.*).—We find, after a more complete microscopical examination, that the corms of the Gladiolus are apparently suffering from a disease caused by a bacillus not unlike that which causes the Hyacinth disease in America, Holland and other places. As the diseased portion is now dried up, it is difficult to determine whether the bacteria are alive or not at the present time. We imagine, however, that they are alive and will be prepared to renew their attacks so soon as the corms are in contact with the moist earth following the annual planting. As the case now stands we advise you: (1) Not to plant in the same ground again; (2) to burn all the worst-affected corms; (3) to treat a few of the roots to a bath of nicoticide or XL All at reduced strength; and (4) to treat liberally any ground to be planted with the diseased corms with a strong application of Kilogrub or similar substance. Superphosphate of lime might also be of assistance in minimising the attack in future.

Sweet Peas for exhibition (*E. H.*). With every real desire to do our utmost for readers, we cannot aspire to impossibilities, and as such we regard the demand for the best twenty-four Sweet Peas in order of merit. As the best that anyone can do, we name twenty-four that will take a lot of beating if they are grown to perfection. Audrey Crier, Clara Curtis, Etta Dyke, Evelyn Hemus, Hannah Dale, Mrs. Hardcastle Sykes, Mrs. Henry Bell, Chrissie Unwin, Prince Olaf, A. J. Cook, Countess Spencer, Helen Lewis, John Ingman, Black Knight, Mrs. Andrew Ireland, The King, Lord Nelson, Mrs. Collier, Romolo Piazzani, St George, Paradise Red Flake, Sybil Eckford, Jeannie Gordon and Rosie Adams.



PEAR LOUISE BONNE OF JERSEY.

Growing Arum Lilies in flowing water (*G. B. W.*).—The essentials to success are that the corms or bulbs be covered by at least 15 inches of water, so that frost cannot reach them. The best way of introducing the plants would be in the late summer-time, when they are more or less dormant and the dry roots are available. At such a time you could place a single corm in a rough piece of sacking, the point of growth protruding, tie up loosely with a peck of soil and sink the plants into the positions required; or, if you have specimens you could, when the severe weather has passed away, drop in the established plants from pots in much the same way. These plants ask for nothing more than the rich mud and vegetable deposit usually found in such places, and suitable water in which to grow. You would also find

Sagittaria japonica flore-pleno, the double white Arrowhead, a notable plant for such a place or even in the shallow water of the stream. Why not plant Nymphæa Marliacea albida, N. M. carnea and N. M. chromatella in the pond and possess a glorious trio of the finest Water Lilies extant?

Christmas Roses under north wall (*Mrs. B.*).—You do not say how long the plants have been in their present position, a most important point. Your note would seem to indicate that the plants have completely exhausted the soil and are, consequently, starved. If such is the case, you may lift them at once, dig the border thoroughly and deeply, and incorporate a liberal amount of well-decayed manure therewith. Then replant and take care that they do not, during the coming summer, suffer from want of water. If they are only just planted and the conditions as to soil are favourable, you can reasonably anticipate better results another year.

Narcissus diseased (*H. S.*).—The disease so-called appears rather the result of injury, due probably to something locally inflicted and of which we have no data. The slight rusty appearance of the leaves and their distortion may have been due to some injury inflicted last autumn, the leaves with the flower-buds for this season's display being then formed. The fact that the specimen you submit has a very full and healthy mass of basal roots, that the bulb itself is of more than average soundness, and that it now contains and, indeed, is producing two flower-scapes, does not point to any very serious trouble. Occasionally, however, a bulb will produce a distorted leaf without apparent cause. We usually find that an abundant supply of root moisture during the growing period will invariably ensure the full and proper development of the blooms. If, in other instances, you find diseased leafage in conjunction with a rootless condition on the same side of the bulb, it woul l point most probably to an attack of mite setting up basal disease. This, in the instance before us, is not the case.

THE GREENHOUSE.

Begonias going wrong (*R. W.*).—Your Begonias are badly attacked by what is termed the Begonia mite, a tiny, almost microscopical insect nearly related to the thrips. It is very liable to attack plants that are in too dry an atmosphere and kept too warm. You speak of giving your plants stove treatment; but a warm greenhouse or a structure kept at an intermediate temperature is more suitable to the requirements of this Begonia than a stove. These little pests attack the leaves and stems while very young, and by the time they show the effect of the injury the insects may have left them to carry on their work of destruction elsewhere. An occasional vaporising with the XL All Vaporiser will keep the plants free, as the perfect insects are killed by it although the eggs escape. When these hatch the next vaporising will kill them. Dipping in tobacco water will also get rid of the mite, but one dose will not be sufficient.

Hippeastrum bulbs soft (*W. F. W.*). Without doubt your Hippeastrums have been kept too moist, and that is the principal cause of the trouble. Judging by the leaf sent, they do not appear to have had any season of rest, as the bulbs should be now quite dormant. At the same time other cultural details may have been wrongly carried out. Briefly, the treatment required by Hippeastrums may be thus summed up: After flowering the plants should be kept in a house where an intermediate temperature is maintained, that is to say, where the thermometer ranges from 55° to 70° or thereabouts. They must be regularly watered, the object being to encourage good free growth, as this plays an important part in the display of flowers another season. Then by July the plants may be placed in a sunny part of the greenhouse or in a frame, the light being put on in the event of heavy rains. They will need to be regularly watered till the leaves begin to turn yellow, when less water must be given, and finally, when totally dormant, be discontinued altogether. This may be in the latter part of October or in November. Previous to this, that is to say, in September, the bulbs should be taken into their winter quarters, where a temperature of 50° to 55° is maintained. The bulbs are best if kept quite dry during the winter months, that is if they are not near hot-water pipes or are so situated that the soil becomes very parched, in which case a little water may with advantage be given. By the end of January they may be watered, at which time a good light position in a temperature of 50° to 65° is best for them. At one time Hippeastrums were potted annually, but now they are often allowed to stand for two or three years without repotting. When necessary it can be done either in January or immediately after the flowers are over. When growing freely, that is, in the spring and early summer months, an occasional dose of liquid manure will be helpful.

Ornamental Asparagus for cutting (*E. A. C.*).—Where Asparagus plumosus nanus is grown largely for cutting purposes, it is often planted out in a prepared border in the greenhouse, or preferably in a structure kept somewhat warmer than an ordinary greenhouse. The border must be effectually drained and made up of turfy loam, peat and sand. During the growing season an occasional dose of liquid manure will be helpful. As it is very probable that you have no facilities for planting out your Asparagus, the plants may be grown altogether in pots, using the same kind of soil as that above recommended. In pots when well furnished with roots, they can be given liquid manure rather oftener than if planted in the border. The shoots should be trained up strings or to the roof of the structure. The fact of your plants running up with long stalks and very little foliage would suggest that yours is a very poor form of Asparagus plumosus nanus, or perhaps only a plumosus itself. Some plants are much superior to others, and in large market establishments where large quantities are grown especial care is taken to grow only the best form, as this makes all the difference between a remunerative crop and a non-paying one. A pretty Asparagus for cutting is A. tenuissimus, whose leaves are as slender as those of A. plumosus nanus, but the branches are not flattened and frond-like as in the last-named. Asparagus tenuissimus, when in a healthy condition, quickly shoots out again when sprays are cut.

Climbers for conservatory and billiard-room (*J. H.*).—There are no climbers whatever that we can recommend to give satisfaction under such conditions as those named by you. The dry atmosphere necessary for a billiard table would be very unfavourable for the culture of any plants, climbing or otherwise. In such a place not only would the growth be weak, but the plants would become infested with red spider, mealy bug and other insect pests.

Freesia bulbs for inspection (*E. E. D.*).—The Freesia bulbs sent are quite sound, and in some cases there is an attempt to form a small bulb on the top of the old one. We should say that the fault lies partially in insufficient feeding after the flowers were over, but more particularly in the bulbs being badly ripened. As soon as the foliage dies down, the pots of Freesia bulbs should be stood on a shelf fully exposed to the sun and kept quite dry for a month before turning them out of their pots, sizing the bulbs and repotting them. This is a highly important matter in the cultivation of Freesias.

TREES AND SHRUBS.

Destroying a tree-stump (*A. P. Traherne*).—You can kill the stumps of a tree by removing the soil from the main roots, then boring holes into them half an inch to 1 inch in diameter and filling them with common salt. If the trunk has been sawn off level with the ground you can bore a large hole into the butt, carrying it well past the centre, then fill with saltpetre and pour a little water in to help it dissolve; cork up the hole and let it stand for three months, then uncork, fill the hole with paraffin and apply a light. The butt will gradually smoulder away.

Aucubas planted under Austrian Pines (*S. S.*).—The Austrian Pine, by its vigorous growth and dense shade, takes so much out of the ground that there is but a poor chance of any shrub succeeding well in close proximity to it, but by mulching in spring with a layer 5 inches deep of good rotten manure, as you suggest, we have no doubt the Aucubas will do fairly well. We should rake away the Pine needles and burn them with other rubbish. Not much, if any, good comes of giving guano or other artificial manures to shrubs.

ROSE GARDEN.

Manuring Rose-beds (*M. S. W.*).—As you had excellent results last season from digging in peat-moss litter, we advise you to use the same material again this season. This manure is not nearly so likely to encourage mildew as long straw manure; indeed, the latter should always be frequently turned and rotted down before being utilised for Roses. The peat-moss litter, providing it is not removed from the stables too quickly, has a most beneficial effect upon a light soil, and if a proper tilth is maintained by frequent hoeings you need have no fear as to any injurious results arising from its use.

Fast-growing climbing Rose for greenhouse (*M. S. W.*).—Varieties that would yield large blooms and grow quickly are Climbing Niphetos, Climbing Kaiserin A. Victoria, Climbing Perle des Jardins, Solfaterre, Lamarque and Climbing Devoniensis. Of the beautiful small-flowered cluster Roses that would yield beautiful foliage as well as lovely clusters of buds, we can recommend Claire Jacquier, Alberic Barbier, Tea Rambler, Gardenia, Dorothy Perkins, Hiawatha and Paradise. You should procure extra-sized pot-grown plants, and if possible plant out the variety you select in a well-prepared border, or it could be planted into a tub or large pot. The plant would need little or no pruning the first year.

Large-flowered climbing Roses for pergola (*J. S. L. M.*).—The variety Tausendschön, which we figured in our issue of the 30th ult., would be a very suitable one for your pergola. The other varieties you name are not very fast growers, but they would do well on the upright posts, and are excellent large-flowered sorts. Pink Rover is very sweet and of a nice fresh shell pink colour. Mme. I. Pereire is a large carmine-rose-coloured flower; Mrs. Paul, flesh white, large and flat like a Camellia. Mrs. Chandler is a white sport of the latter. Zepherin Drouhin is a lovely cerise colour and Mme. Pierre Oger delicate mauve and white. Some large-flowered, fast-growing sorts well suited for your purpose would be Climbing Caroline Testout, Mme. Alfred Carrière, Waltham Climber No. 1, Reine Olga de Wurtemburg, Souvenir de Mme. Jos. Metral, Mme. Jules Siegfried, Gaston Chandon, Johanna Sebus, Conrad F. Meyer, François Crousse, Mme. Berard, Mme. Jules Gravereaux, Noella Nabonnand, Kaiserin Friedrich, Edmond Proust and Reine Marie Henriette.

Pruning Roses planted this winter (*J. T.*).—Rosarians find it to be much the best plan to prune newly-planted Roses pretty severely the first year. It is after they have become established where the difference in pruning must be made. Of the extensive list of names you submit, we advise you to prune them, with the exception of the climbers, to within 3 inches to 5 inches of their base this season. Should you desire further information as to the pruning of the individual sorts another year, you will find most of the varieties you name alluded to in our pruning notes, which were carefully prepared and which appeared in our issues for February 23 and March 2 in the year 1907, and March 7 and 14 of last year. The rugosa Roses you should prune back to about 12 inches of their base. The Polyantha Ramblers and wichuraianas may be retained about 3 feet in length, although they would be none the worse if pruned back to 1 foot the first year. Afterwards you will not need to prune them very much, merely removing some of the old wood annually and retaining the young growths nearly their full length. The side growths of Ramblers, termed laterals, are always shortened back pretty hard, say, from three to six eyes. Penzance Briars and Austrian Briars we should not prune at all, except to remove just the extreme ends of the growths. The China Roses should be treated in the same manner as the majority of those named in your list.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions

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Offices: 20, Tavistock Street, Covent Garden, W.C.

MR. E. MAWLEY'S ROSE ANALYSIS, 1901—1908.

IT was not my intention to have sent you this year my usual notes on the above, partly because it now appears in the National Rose Society's Annual; but enquiries from more than one of your readers have reached me recently as to when my notes were going to appear, and I have been induced to alter my decision.

The original analysis has appeared for many years now in the columns of your contemporary, the *Journal of Horticulture*, and I have to thank the Editor of that journal for permission to reproduce it here. At the same time, only portions of the whole are taken.

For the benefit of those who are making the acquaintance of these statistics for the first time, Mr. Mawley briefly explains the system upon which they are annually compiled. "For the last twenty-two years the name of every Rose in the first, second and third prize stands has been taken down at the leading Rose show of the season—that held annually in London in July by the National Rose Society. The results thus obtained have been tabulated and the varieties arranged in the published tables according to the average number of times each Rose was staged at the last eight of those exhibitions. This applies to nearly two-thirds of the Roses which find places in those tables. For the sorts of more recent introduction the longest trustworthy averages are given instead, while the still newer kinds are given positions according to their records for the last exhibition alone."

Mr. Mawley commences his article that accompanies the analysis with an interesting account of the weather that prevailed for the three months previous to the show, and which helped to account for the fact that the early promise of a record season, both as regards quality as well as quantity of flower, was not borne out by the results. He says: "The winter of 1907-8 was, on the whole, mild and dry, and at pruning time the rosarian had little cause for complaint either as regards the growth his plants had made, or the soundness and ripeness of the shoots. Throughout April the leaf-buds remained virtually dormant owing to the exceptional coldness and wetness of that month, and little injury was apparently done by the cold nights, which may be partly due to the ground having been covered with a deep fall of snow when some of the keenest frosts occurred. Then came the critical month of May, which was this year virtually without frost, and as the weather remained for the most part warm, the plants continued to make steady and excellent progress. The first few days of June were unusually hot, which caused the plants to start into vigorous growth and form their flower-buds. So far all had gone well. The most noteworthy feature of the next three weeks was the number of cold nights with occasional slight ground frosts, while the last fortnight of the month was rainless. Then at the end of June came a sudden burst of heat, which culminated on the show day itself with the highest temperature of the whole summer. It will thus be seen that the prospect of one of the finest Rose seasons ever known was marred first by cold and drought, which checked the progress of the buds, and then by exceptional heat, which hurried them prematurely into flower. As was the case last year, it was not the much-dreaded spring frosts, but a spell of cold weather in June which arrested the progress of the buds at the most critical period of their development, to say nothing of the tropical heat which followed, and which proved so trying not only to the exhibitors, but also to the flowers themselves when staged."

Undoubtedly the early promise was not continued, at any rate, through the Rose-showing season, and so we find that the early shows had the better quality flowers. And at the time of the "National" (coming as it did at the end of seven days of almost tropical heat) the flowers that were exhibited had mostly developed too quickly, and none but the many petalled varieties had a chance of surviving the trying ordeal of the exhibition tent, as a reference to the analysis will prove. The exhibitor left such sorts as Captain Hayward, Mrs. R. G. Sharman Crawford and Fisher Holmes at home, or if he brought them to the show they remained in his spare box; they were not staged except in cases of dire necessity or a very exceptional bloom.

It is well, then, before examining the analysis to remember the exceptional circumstances of the show and what bearing the same must have had on the Roses. It is true that the analysis combines the results of eight years, and therefore may correct, to a certain extent, the exceptional, so that it may be taken on the whole as the rule. I have before me the analysis for the last three years as I write. Let us compare the record of a single Rose and see what the season does for it. Captain Hayward, the first Rose mentioned above, will answer; it is a variety whose record is likely to vary with the season. In 1906 I find this Rose was exhibited in twenty-one winning boxes, in 1907 in no less than thirty-four—a record for the variety—in 1908 it had not a single representative. As an opposite instance we will take Her Majesty. In 1906 her total was thirteen, in 1907 *nil*, in 1908 twenty-one. Now we will take what we will call a dependable sort, a standby—Caroline Testout, for instance—in 1906 forty-three, in 1907 thirty-eight, in 1908 thirty-two. I mention these few facts to show that even statistics, compiled as we know these are with scrupulous care, may mislead, unless there is brought to bear on them some knowledge of the circumstances under which the facts with which they deal were produced.

With these few remarks in mind, we will turn to the analysis on page 98. The first column represents the results of 1908 and the seven previous years; the second, the average number of times the variety has been shown over the whole period; and the third, its relative record for 1908 only.

Mr. Mawley's comments on the analysis are as follows: "As was the case in 1907, but few

varieties were exceptionally well represented at this year's show. In fact, only Mildred Grant, Florence Pemberton and Ulster have never before, and Gladys Harkness only once before, been as frequently staged, whereas K. A. Victoria, Mrs. W. J. Grant, A. K. Williams, La France, Mrs. R. G. S. Crawford, Gustave Piganeau, S. M. Rodocanachi, Captain Hayward, Dupuy Jamain, Duke of Wellington, General Jacqueminot, Lady M. Fitzwilliam, Tom Wood and Duke of Edinburgh have never before been as sparsely exhibited. Of the foregoing fourteen varieties all but four, it will be noticed, are Hybrid Perpetuals. Notwithstanding the poor show made by the above Hybrid Perpetuals, it is interesting to note that, taking the whole of the Hybrid Perpetuals in the table, they still slightly outnumber the Hybrid Teas, and that the number of the latter on the list has not increased since last year.

"The positions now occupied by the newer Roses on the list as compared with those they took up in the previous analysis is always a matter of peculiar interest, although in some exceptional cases these changes may be due in a great measure to the lateness or earliness of the different seasons, or, if possessing only a moderate number of petals, to the heat of the show day this year. In the present instance, by newer Roses is meant those varieties on the list which are now five or fewer years old. Of the three 1903 varieties, Mrs. Theodore Roosevelt (light pink) has risen since last year from No. 50 to No. 30, whereas Gustave Grunerwald (carmine pink) has fallen during the same time from No. 30 to No. 58. Lohengrin (silvery pink) on its first appearance in the table takes up a place at No. 65. To the year 1904 we owe three splendid acquisitions—Dean Hole, Hugh Dickson and Lady Ashtown. Dean Hole (pale carmine, shaded salmon) was staged more frequently than any other Rose in the table, and now occupies the second place in it. Hugh Dickson (bright crimson) since last year has fallen from No. 8 to No. 15, no doubt owing to the heat of the weather, and Mrs. David McKee (creamy yellow) from probably the same cause, from No. 50 to No. 61, while Lady Ashtown (deep pink) remains virtually at the same place (No. 16) as last year. We now come to four varieties which were sent out in 1905. J. B. Clark (crimson, shaded plum) has still further improved on its last year's position by rising from No. 21 to No. 8. Mrs. J. Bateman (china rose, yellow base), which is new to the list, takes up a very creditable position at No. 26; Countess of Derby (flesh peach) remains as before at No. 42, while Mme. Melanie Soupert (salmon yellow, shaded pink) on its first appearance in the list takes up a position at No. 66. The only variety finding a place in the table which was first distributed in 1906 is a very large pink exhibition Rose, William Shean, which since last year has risen from No. 56 to No. 22. Queen of Spain (blush white) is also the only 1907 variety, and this on its first appearance finds a place at No. 34.

"Of the above-mentioned new Roses eight were raised in Ireland, one in England, two in Germany, one in France, and the remaining variety of the thirteen in America. If we turn to the table of Hybrid Perpetuals and Hybrid Teas we shall find further evidence of the great advances made in recent years by the Irish Roses, A. Dickson and Sons being credited with twenty-five varieties in that table, three of them occupying the three best positions in it; and Hugh Dickson with two. England claims ten, viz., Bennett four varieties, G. Paul and Son two varieties, W. Paul and Son two varieties, S. Bide and Sons one variety and B. R. Cant one variety; so that of the sixty-six Roses in the table thirty-seven, or more than half, were raised in the British Isles. To France we are indebted for twenty-two varieties, four having been sent out by Pernet-Ducher, three by Levet, three by Lacharme, two by Guillot, two by Schwartz, and one each by Baumann, Granger, Jamain, Lévêque, Liabaud, Roland, Roussell and E. Verdier. Germany is represented by six varieties, four having been distributed by Lambert, one by Schmidt and one by N. Welter, while to America we are indebted for only one, which was sent out by E. G. Hill and Co."

The noteworthy items of the year are possibly the continued rise of Dean Hole, the most frequently staged Rose in the exhibition among the Hybrid Perpetuals and Hybrid Teas, and the jump forward of Florence Pemberton from twenty-four last year to fifty-three this year, bringing her to the proud position of equal third on the day's record, a truly surprising and, I must admit, unexpected result. J. B. Clark also continues a steady progress, showing that this variety is getting better understood. On the other side, I have already referred to the downfall of Captain Hayward, and all these Roses, with the notable exception of Killarney, tell the same tale. La France's record would not be so easy to understand if we did not remember that it is a distinctly early Rose, and therefore was all over before the "National," early in date though it was.

One curious feature that has not before been commented on is that, if we take the first ten Roses in the list, we find not, as I think would be generally expected, that the majority are pink, but that exactly half of them are white, with only three pink and two red, and in the whole fifty-one varieties (to which I have limited the table), there is only one other white in the list figuring at No. 31.

Of the newer Roses, William Shean is bound to take a higher place, as will, I think, Mrs. John Bateman, Mrs. Theodore Roosevelt and Mme. Melanie Soupert, few as are the petals of this beautiful Rose. My notes on the Teas will follow. H. E. MOLYNEUX.

HYBRID PERPETUALS AND HYBRID TEAS.

Position in Present Analysis.	*Average No. of Times Shown.*	*Times Shown in 1908 in Proportion to the Average.*	*Name.*	*Date of Introduction.*	*Raiser's or Introducer's Name.*	*Colour.*
1	52·4	53	Bessie Brown, H.T.	1899	A. Dickson and Sons	Creamy white
2	50·5	59	Dean Hole, H.T.	1904	,, ,,	Silvery carmine, shaded salmon
3	49·8	56	Mildred Grant, H.T.	1901	,, ,,	Ivory white, shaded pink
4	41·3	44	Frau Karl Druschki	1900	P. Lambert	Pure white
5	35·9	32	Caroline Testout H.T.	1890	Pernet-Ducher	Light salmon pink
6	35·4	35	Mrs. John Laing	1887	Bennett	Rosy pink
7	32·1	24	Ulrich Brunner	1881	Levet	Cherry red
*8	32 0	32	J. B. Clark, H.T.	1905	Hugh Dickson	Deep scarlet, shaded plum
9	31·7	53	Florence Pemberton, H.T.	1902	A. Dickson and Sons	Creamy white, tinted pink
10	27·3	13	Kaiserin Augusta Victoria, H.T.	1891	Lambert and Reiter	Cream, shaded lemon
11	25·9	14	Mrs. W. J. Grant, H.T.	1895	A. Dickson and Sons	Bright rosy pink
12	23·5	11	A. K. Williams	1877	Schwartz	Bright carmine red
13	23·0	20	Alice Lindsell, H.T.	1902	A. Dickson and Sons	Creamy white, pink centre
14	22·4	4	La France, H.T.	1867	Guillot	Silvery rose, shaded lilac
15	22·0	14	Hugh Dickson	1904	Hugh Dickson	Crimson, shaded scarlet
16	21·5	21	Lady Ashtown, H.T	1904	A. Dickson and Sons	Deep pink
17	20·4	2	Mrs. R. G. Sharman-Crawford	1894	,, ,,	Clear rosy pink
18	18·9	12	Gustave Piganeau	1889	Pernet-Ducher	Shaded carmine
19	18 5	21	Her Majesty	1885	Bennett	Pale rose
19	18 5	17	Horace Vernet	1866	Guillot	Scarlet crimson, dark shaded
21	17·1	10	Helen Keller	1895	A. Dickson and Sons	Rosy cerise
22	17 0	8	Suzanne M. Rodocanachi	1883	Lévêque	Glowing rose
*22	17·0	17	William Shean, H.T.	1906	A. Dickson and Sons	Pink
24	16 9	0	Captain Hayward	1893	Bennett	Scarlet crimson
25	16·8	11	Marquise Litta, H T.	1893	Pernet-Ducher	Carmine rose, bright centre
*26	16·0	16	Mrs. J. Bateman, H.T	1905	A. Dickson and Sons	China rose, yellow base
27	15·5	20	Ulster	1899	,, ,,	Salmon pink
28	14·3	13	Killarney, H.T.	1898	,, ,,	Pale pink, shaded white
29	13·6	8	Prince Arthur	1875	B. R. Cant	Bright crimson
30	13·5	19	Mrs. Theodore Roosevelt, H.T.	1903	E. G. Hill and Co.	Light pink
31	12·8	7	Charles Lefebvre	1861	Lacharme	Purplish crimson
31	12 8	1	White Lady, H.T.	1890	W. Paul and Son	Creamy white
33	11·1	8	Marie Baumann	1863	Baumann	Soft carmine red
*34	11·0	11	Queen of Spain, H.T.	1907	S. Bide and Sons	Pale flesh, deeper centre
35	10·8	16	Lady Moyra Beauclerc, H.T.	1901	A. Dickson and Sons	Madder rose, with silvery reflex
36	10·1	10	François Michelon	1871	Levet	Deep rose, reverse silvery
37	10·0	7	Dupuy Jamain	1868	Jamain	Bright cerise
38	9·9	10	Countess of Caledon, H.T.	1897	A. Dickson and Sons	Carmine rose
39	9·4	9	Alfred Colomb	1865	Lacharme	Bright carmine red
40	9·3	7	Comte de Raimbaud	1868	Roland	Clear crimson
40	9·3	10	Mamie, H.T.	1901	A. Dickson and Sons	Rosy carmine, yellow base
*42	9 0	9	Countess of Derby, H.T.	1905	,, ,,	Flesh peach [reverse
42	9·0	13	Gladys Harkness, H.T.	1900	,, ,,	Deep salmon pink, silvery
42	9·0	16	Oberhofgärtner Terks, H.T.	1902	N. Welter	Rosy flesh, shaded salmon
45	8·8	2	Fisher Holmes	1865	E. Verdier	Shaded crimson scarlet
46	8 5	7	Robert Scott, H.T.	1901	A. Dickson and Sons	Clear rosy pink, shaded flesh
47	8·3	10	Duchess of Portland, H.T.	1901	,, ,,	Pale sulphur yellow
47	8·3	3	Mme. Gabriel Luizet	1877	Liabaud	Light silvery pink
49	8 0	2	Duke of Wellington	1864	Granger	Bright shaded crimson
49	8·0	11	Papa Lambert, H.T.	1899	Lambert	Pinkish rose
51	7·6	1	Général Jacqueminot	1853	Bennett	Bright scarlet-crimson

* A new variety, whose position is dependent on its record for the 1907 show only.

NOTES OF THE WEEK.

FORTHCOMING EVENTS

*** *The dates given below are those supplied by the respective Secretaries.*

March 8.—United Horticultural Benefit and Provident Society. Annual General Meeting, 8 p m.

A beautiful Wych Hazel (Hamamelis mollis).—Among the many beautiful winter-flowering shrubs there is probably none to excel the Hamamelis, commonly known as Wych Hazel. There are several beautiful varieties, but none to excel or even equal the above Chinese species. We have a plant here between 5 feet and 6 feet in height, well proportioned and literally wreathed with its attractive flowers, which forms a most conspicuous object in the shrubberies. It began to open its showy flowers the first week in January, and the severe frosts which we have experienced have not appeared to injure it in the slightest. I am hardly sure when this variety was introduced to this country, but so far as I know there are few larger plants than the one we have here at Aldenham. Though slow growing, it has done remarkably well since planted here on our stiff, retentive soil in a position fairly south-west, and no one who is interested in beautiful shrubs, especially for flowering at this season, should fail to add it to their collection.—E. BECKETT, *Aldenham Gardens, Elstree, Herts.*

The "Kew Bulletin."—The January number of this publication contains an interesting article by Mr. George Massee on the dry scab of Potatoes (Spondylocladium atrovirens), which up to the present was believed to be absent from Great Britain. Other interesting articles are devoted to "Australian Pasture Herbs" and "Some Species of Impatiens from Indo-China and the Malayan Peninsula."

The Norfolk and Norwich Horticultural Society.—This society has had several reverses at its recent exhibitions, so that the annual meeting held recently was not so bright as usual. The society has been holding exhibitions in Norwich and district for seventy years and has done much good horticultural work. More subscribers are needed. Let us hope none of the shows will be discontinued, as was hinted.—P.

Changes among the Kew staff. Mr. W. Dallimore, who for some years past has had charge of the splendid arboretum at Kew, has been appointed assistant in the Museums (British Forestry Section), and takes up his new duties early in March. He will, we presume, have charge of the new museum which has been formed in the late Duke of Cambridge's residence, which, together with the garden, was granted to the public after the death of the Duke. Mr. Dallimore has a very extensive knowledge of trees and shrubs, and his many friends will be pleased to hear of his appointment. He is succeeded in the arboretum by Mr. A. Osborn, who has till now had charge of the decorative department, which includes the bedding, herbaceous or mixed border and House No. 4.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Cupid Sweet Peas grown in a barrel.—In the special Sweet Pea number of THE GARDEN, which was really very fine and particularly instructive, I noticed, on page 78, a small paragraph on Cupid Sweet Peas (with illustration) by your correspondent "Northesk," Ethie Castle. The idea of growing these in tubs is no doubt good if only the flower-buds would burst instead of dropping off, which is a general complaint. I wonder if your correspondent would be willing to give in detail, through your columns, the treatment meted out to them to obtain a display similar to that shown in THE GARDEN, so that many like myself could see where they had failed and apply the remedy. From many quarters one hears that they are not worth troubling with; but one thing is certain, that they must do nominally well in some places, or how comes it there is plenty of seed on sale? Can no one come forward and help to perfect what would certainly be a very welcome addition to the Sweet Pea family?—GEORGE TUCKER.

—— Could we have more information about the Cupid Sweet Peas grown in a barrel, shown in THE GARDEN for the 13th inst.? Where are the holes in the barrel and what is the depth of the soil, &c.?—SUBURB. [Perhaps "Northesk" will kindly oblige with fuller details of his system of culture. We hope other readers who have been successful in growing Cupid Sweet Peas will send concise details of their system, so that these charming little flowers may be more extensively and better grown than they are at present.—ED.]

The Winter-flowering Carnation Society.—Mr. Jacob makes an appeal to your readers on behalf of this comparatively new society. Is not the poor attendance of the public at its shows due to the fact that the membership of the Royal Horticultural Society now practically includes all, or nearly all, of those specially interested in the cultivation of winter or perpetual Carnations; and as the recent show of December 9 was held on the day succeeding one of the society's fortnightly meetings, when there were exhibited very fine collections of these Carnations—such, in fact, as would largely make up the show of the succeeding day—and as the spring show on March 24 next will be held under precisely the same conditions, is it likely that visitors on the one day to the Royal Horticultural Society's meeting would attend the show on the following day? Doubtless it is due to this that the Carnation Society had such a poor "gate" on December 9. I was for two years from its start a member; but when I found that the Carnation shows were largely repetitions of the Royal Horticultural Society's meetings I retired from membership. Really, so far the Royal Horticultural Society seems, by the freedom with which it places space at the disposal of growers, not merely twice a year, but twenty-seven times, to do all that is needed to encourage Carnation growing of the section referred to. We are by no means all millionaires, and the demands made on horticulturists, whether professional or amateur, to support various societies become burdensome. What with the Royal Horticultural Society, and Rose, Auricula, Dahlia, Sweet Pea, Chrysanthemum, summer Carnation and other societies, the subscriptions yearly become a heavy tax. This should influence those persons of enthusiastic temperament who wish to start some new horticultural or, it may be, purely floricultural society. It is perhaps the fact that these things have not had full consideration which has led to the Perpetual-flowering Carnation Society's present financial position. Evidently a much wider range of supporters is needed.—A. D.

LYCASTE SKINNERI AS GROWN BY A READER.

Well-kept Apples.—The truly remarkable collection of some 150 varieties of home-grown Apples shown by that famous Kentish firm, Messrs. G. Bunyard and Co. of Maidstone, at a recent meeting of the Royal Horticultural Society, naturally leads to the query why it should be found possible both to grow and store so well until February such a grand lot of fruit, and yet that few, if any, good home-grown Apples are to be had in the market. It would have been very interesting to have had, by some capable market salesman, a valuation of that collection on market lines, so that it might be shown whether growing late varieties, though by no means necessarily so many of them, and storing them well till February, was likely to pay. That, presumably, is the test which anyone having any financial interest in the matter would apply. Probably if sold at 20s. per bushel fruits might pay well, but that price would cause these Apples to rival the famous golden ones of the Hesperides. What is needed is that such crops shall pay to grow and store, yet be in the market within reach of ordinary pockets.—A. D.

Lycaste Skinneri.—The accompanying illustration of this popular Orchid is from a photograph kindly sent to us by Mr. F. Doherty, gardener to T. J. Jay, Esq., Mount Avalon, Glastonbury, and the plant was grown by him.

The Royal Horticultural Society's new competitions. The provision by the Royal Horticultural Society of a series of classes and prizes at the fortnightly meetings of the society certainly has not so far met with an encouraging response. The proceeding is so unusual so far as the society's meetings are concerned that the gardening world does not seem to have realised fully the change that has come over the scene. At the first meeting on January 12, out of five classes for Grapes only one poor lot of two bunches was staged. On January 26, out of seven classes three only found exhibits—two in one class of forced Seakale and one each of Rhubarb and salads. On February 9, out of four classes only one, that for single dishes of late Pears, filled, four dishes being staged. Much as may be deplored the loss of the October fruit show, in any case these competitions, covering so many products all the year through, should secure much wider support than has yet been seen. It is very probable that the competitions have not yet become sufficiently known to attract those who have the required produce at their disposal.—A.

Rosa lævigata blooming at Christmas.—Since writing my note on "Unseasonable Flowering of Shrubs," page 27, I have been informed that a large plant of Rosa lævigata growing near Plympton, South Devon, was bearing twelve expanded flowers on Christmas Day. The plant in question has reached the eaves of the house, a height of about 25 feet, and has a greater breadth. It is naturally a summer, or rather a spring, bloomer, generally flowering in April and May and never producing autumnal blooms. The parent plant is growing at Kingswear, South Devon, and was received from Abbotabad, North-West India, many years ago. It is an exceptionally fine form of Rosa lævigata, bearing enormous, pure white, single blooms from 5½ inches to 6 inches across, far larger than those of the ordinary R. sinica, which is held to be synonymous with R. lævigata Young plants of this Rose have been distributed to several gardens in the South-West, so it should become fairly common. It is not found to do well on its own roots, cuttings never forming satisfactory plants; but on the Polyantha stock it makes enormous growth and is very healthy. Miss Willmott grows this form at Tresserve.—S. W. FITZHERBERT.

THE FLOWER GARDEN.

THE CULTIVATION OF THE NEAPOLITAN VIOLET.

(*Continued from page 65.*)

TO ensure a good succession of flowers a second bed might be made up six or eight weeks after the first, pursuing the same course. Other plants may be kept under hand-glasses, and will bloom after those in the frames. Some persons prefer taking up the old roots and dividing them, afterwards planting them in a bed prepared as previously advised. Personally, I do not consider them equal to the young plants.

Another course of treatment, and one which in some cases may be preferable, is to pot the young plants carefully into 6-inch pots instead of planting them in the frames. The pots are then plunged into either coal-ashes or spent tan in a similar frame, and their treatment subsequently does not differ from that already detailed. This plan admits of the removal of a few plants to a slightly elevated temperature, if they are required for any particular purpose, more readily than it could otherwise be done. The plants, when nicely in flower, might also be removed to the sitting-room, which in many cases might be preferred to picking the blossoms and preserving them by placing their stalks in water. Whichever of these modes is followed, the requisites appear to be healthy, vigorous plants, light, rich soil, a situation in winter free from damp and frost, all the light the season will afford, and as little water artificially applied as can possibly be made sufficient.

A somewhat more simple course, though necessarily one in which the results are not so satisfactory, is to provide strong, healthy young plants in the manner already recommended, and in September take them up and carefully pot them, preserving them from frost in any cold frame, removing them in succession to the window of a living-room. So treated, they bloom so as to amply repay the trouble bestowed on them. It is, however, very necessary to be cautious in the application of water. The single Russian Violet, which commences flowering in autumn, may be had in good perfection previously to the time the Neapolitan variety commences flowering by removing a few patches either to a sheltered corner, or placing them in a frame and partially protecting them by the glass sashes in inclement weather. This variety, though much less handsome than the Neapolitan, is equally fragrant, and, therefore, forms a very desirable substitute for that kind. Of the two varieties of Neapolitan Violets, that with double flowers is most extensively cultivated, on account of the superior beauty of its blossoms. R. GILL.

SWEET PEA CHAT.

IN my notes on the season's novelties I finished my paragraph in which the great name of Eckford appeared just a little too soon, for the names of the splendid sorts he is offering to an eager public were omitted. However, the error is soon rectified, and special attention is called to Annie B. Gilroy, cerise; the raiser describes this as peculiarly well adapted for evening dinner-tables, as the colour lights up so charmingly. Dodwell F. Browne is a waved King Edward, and may, therefore, be close to The King and King Edward Spencer; but coming from Wem it is sure to be good. Mrs. Charles Masters is a bicolor of rosy salmon and cream, and should be a welcome addition to this section if the colour holds well in the flower, as is not the case with the majority of the bicolors.

Seeds in Pots and Boxes.—It is, of course, essential to complete success that the seeds sown in pots or boxes in the greenhouse or frame shall have proper attention, particularly in regard to watering. One of the most frequent causes of failure in this system of culture is excessive watering. Amateurs do not appear to be able to grasp the fact that soil becomes sour much more quickly when it is not occupied by roots, and if they persist in watering the probabilities are that the seeds will rot, because the soil is made and kept so cold that germination is impossible. It is absolutely necessary to the vegetation of the seed that some moisture shall be present in the soil, and it is for the grower to exercise his common sense in giving water, so that the soil is always what gardeners term pleasantly moist.

The rule should be to give water just in advance of perfect dryness of the soil, and each pot must be treated as an individual in this matter, its sides being sharply rapped with the knuckles before any is applied. To water all as they come along is to court disaster, as the soil in all the pots never dries out at precisely the same moment. The greatest care must be taken with those varieties having white skins, as these are far more liable to decay, and must be kept rather drier than the others, and preferably be sown in a surfacing of sand. If the seedlings do not appear within a reasonable time, the soil should be carefully loosened, the seeds removed, and if it is found that they are still quite sound, the skins should be chipped to encourage growth and the seeds resown.

Until the seedlings commence to show through the surface of the soil it is permissible to keep the boxes covered with glass and brown paper, as this reduces the frequency of watering; but as soon as they are seen full light is imperative. If the pots and pans are in a greenhouse, the receptacles must be elevated until they are close up to the glass, for if they remain down on the flat stages it is certain that the juveniles will quickly start to run up to it, and weakly, leggy seedlings result. If they are in frames and the lights are on, the same rule holds good. In either case, however, it is necessary to allow an abundance of fresh air. Stuffiness of the atmosphere will encourage a sappy growth, which will demand considerable care in hardening prior to planting out if no check is to be given.

As soon as possible after germination the plants ought to be put in cold frames, and the lights should never be on in the daytime except during torrential rains, snow or very severe frosts. Keeping off the lights in this manner exposes the plants to the visitations of birds unless steps are taken to exclude them, and the easiest method of accomplishing this is to make a framework the same size as the light and attach to it some small-meshed wire-netting, this being always on when the frame is open. To leave it off for an hour or two while one goes to attend to some other task will almost assuredly mean a visit, and while topping is undoubtedly good when under intelligent control, it is not wise on the part of the grower to allow the birds to do such important work for him. Abundance of fresh air, protection from enemies, and water as may be necessary are the essentials to success. SPENCER.

COLOURED PLATE.

PLATE 1368.

NEMESIA HYBRIDA BLUE GEM.

AS annuals for summer bedding the various Nemesias are excellent, and all those who have grown the many beautiful coloured varieties now so well known will, we think, welcome this latest and unique addition to their ranks. As will be seen in the coloured plate, this Nemesia is of compact habit, its average height being about 8 inches, hence it is splendidly adapted for edgings or even for filling beds to provide a summer and autumn display. It is remarkably free-flowering, the plants being quite covered with the charming Myosotis-blue flowers, a colour of which we have very little after the Forget-me-nots have finished their display. The usual culture given to Nemesias answers admirably for Blue Gem. It was raised by Messrs. Watkins and Simpson, the well-known wholesale seedsmen of Tavistock Street, Covent Garden, London, W.C., and seeds are now obtainable from all retail seedsmen. Such a unique acquisition deserves a place in every garden, and will, we think, become very popular.

ORCHIDS.

AUTUMN AND WINTER FLOWERING CYPRIPEDIUMS AND HOW TO GROW THEM.

ORCHIDS in the section chosen for this article have many points to recommend them to the amateur and those who have to supply cut flowers during the dullest part of the year. Their lasting qualities, whether on the plant or in a cut state, their fog-resisting power and easy culture place them at once in the select circle of decorative Orchids. The varieties of C. insigne are practically legion, and where space is limited one cannot do better than secure C. insigne Sanderæ and Harefield Hall, the former representing the yellow group and the latter the spotted forms. Other species are C. spicerianum, fairieanum, Boxallii and villosum. Among the hybrids we have C. lathamianum, nitens, arthurianum, Niobe, leeanum with its varieties superbum and clinkaberryanum, Baron Schröder, Tityus superbum, œnanthum and Euryades.

Cultural Details.—The best time to repot any Cypripedium is immediately after flowering, using a mixture as follows: One-half of the best fibrous loam procurable, one-fourth good peat and one-fourth chopped sphagnum moss, with a sprinkling of crushed crocks and silver sand, say, a 6-inch potful to every bushel of the compost. Ordinary flower-pots should be chosen, and only a few potsherds are necessary for drainage, over which should be placed a thin layer of loam when the receptacle is ready to receive the plant. When repotting all the old soil should be removed, taking care not to injure the roots, and if the specimen is a large one, a few lumps of the mixture must be arranged between the roots before placing the plant in the pot. Having done this, more soil should be worked in (noting that there is no vacant space as the operation proceeds) till within half an inch of the rim, thus leaving ample room for watering.

After the repotting is completed, the usual method is to arrange them in a batch and water them in with a fine-rosed can, while the surroundings are kept moist by syringing between them twice or three times each day, according to the weather and the amount of fire-heat required. An average temperature of 60° Fahr. is most suitable for the Cypripediums mentioned above; but should it be frosty, a few degrees lower will do no harm, providing the atmosphere is not excessively charged with moisture. Through the summer months a light spray overhead is advised to encourage free and healthy growth, and also to check thrips and other insect pests. If, however, the latter do make their appearance, fumigate with XL All two nights in succession, and previous to starting the lamps a gentle dew over the plants will drive out the thrips to sure destruction.

It must be remembered that all strong-rooting Orchids such as the Cypripediums need a rich rooting medium, and to obtain the finest results the old idea of half filling the receptacles with drainage and raising the plants above the rims must be rigorously excluded. For watering and spraying purposes tepid rain-water ought always to be used. Some growers advocate weak liquid manure occasionally; but where the plants are properly attended to and repotted every other year, this is not required. SENTINEL.

THE ROSE GARDEN.

A HEDGE OF ROSES.

IF one would see the full beauty of many varieties of Roses, they should be planted to form hedges or dividing lines in the Rose garden, where their natural mode of growth may be given full scope for almost unfettered development. In the illustration we see what may be accomplished with such a delightful variety as the thornless Rose Zepherin Drouhin. Here we have free blooming combined with the vigour of the moderate type, not that rampant growth which one associates with hedges of the Crimson Rambler, Dorothy Perkins or Hybrid Sweet Briar groups. Now that so much attention is concentrated upon having as it were perpetual-flowering Rose gardens, it seems most fitting that such sorts as Zepherin Drouhin should be employed for the more moderate hedges. It is a delightful Rose, of that beautiful cerise colouring that never fails to charm, and it is deliciously fragrant.

One is surprised that such a Rose was allowed to almost drop out of cultivation, for it was raised some thirty-five years ago by M. Bizot, and was known for some time in England under the name of Mme. Gustave Bonnet. It was some five or six years ago that it aroused attention, and forms another instance where we owe a debt of gratitude to the horticultural Press for rediscovering such a gem.

Some very beautiful varieties for hedges, growing to a height of some 4 feet to 6 feet, and worthy companions to Zepherin Drouhin, would be the following:

Hybrid Teas.—Mme. Wagram, Bardou Job, J. B. Clark, Ards Pillar, Climbing Mrs. W. J. Grant, Lina Schmidt Michel, Lady Waterlow, La France de '89, Grace Darling, Hector Mackenzie, Johanna Sebus, Grüss an Teplitz, Mme. Abel Chatenay, La Tosca, Sarah Bernhardt, François Crousse, Longworth Rambler, Gustave Grünerwald, Pharisaer and Ma Tulipe.

Tea Scented.—Corallina, Warrior, Marie van Houtte, Sombrieul, G. Nabonnand, Peace, Mme. Lambard and Marie d'Orléans.

Noisette.—Floribunda, Souvenir de Prince Charles d'Arenberg, W. A. Richardson and Alister Stella Gray.

Chinese or Bengal.—Fellenberg, Armosa, Queen Mab, Jean Bach Sisley, Baronne Piston de St. Cyr, Laurette Messimy and Common Pink.

Hybrid Bourbon.—Mrs. Paul, Mme. Isaac Pereire, Gloire des Rosomanes and Mme. Pierre Oger.

Perpetual Scotch.—Stanwell Perpetual, Rugosa, Blanc Double de Courbet, Mme. G. Bruant, Mrs. Anthony Waterer, Conrad F. Meyer, Single Red and Single White.

Multiflora.—Perpetual Thalia, Hybrid Briars, Gottfreid Keller and Soleil d'Or.

When about to plant hedges of this description let the ground be trenched about 2 feet deep and 4 feet wide if a single row is to be planted, and 5 feet wide if a double row. Personally I think a single row is quite sufficient. The plants should be about 3 feet apart, as this allows the branches to be tied out to the right and left a little—a very good plan to adopt, as it encourages basal growths later on. One or two stout wires stretched between moderately thick posts would enable one to tie out the shoots in the manner described. Do very little pruning the first year. Simply tie out the branches and remove their extreme ends. Where a growth appears at all soft it may be cut clean out. The second year one must prune a little, but not much, for it is not quality of bloom we want so much as quantity, and if the plants are well rooted in good trenched soil they may safely be left to look after themselves. It is as well when trenching to add some basic slag to the lower spit of soil in addition to the farmyard manure. When established these hedges appreciate liquid manure equally as much as the exhibition plants and will well repay such attention.

A HEDGE OF ROSES IN MESSRS. MERRYWEATHER'S NURSERY, SOUTHWELL.

I strongly recommend these hedges, and consider they should be more frequently arranged for in the formation of new Rose gardens. For encircling the Rose garden naturally we shall want the more vigorous varieties, on the north and east sides especially, and we must have recourse to the wichuraiana and multiflora sections, with the sempervirens, Ayrshire and Hybrid Sweet Briars.

One chief item to remember is to remove annually some of the old wood right down to the ground, then the hedges are kept in a thrifty condition, for nothing is so disappointing as to see a tall, gaunt hedge with no new basal growths and, consequently, little or no bloom, save at the top of the hedge. The photograph from which the illustration was prepared was taken in the nurseries of Messrs. H. Merryweather and Sons, Limited, Southwell. P.

BANKSIAN ROSES.

ALTHOUGH very tender and only suitable for a few situations, these are exceptionally charming where they thrive, and there is scarcely a better place for them than in the cool conservatory-like hall found in some old houses. Hardly any pruning is necessary; it suffices to cut out old wood and thin when overcrowded. There are two white varieties, and I wish to call attention to their difference, as several have complained who had the variety Fortunei instead of Banksia alba. The first is a pure white with flowers a little larger than a shilling and borne singly. Banksia alba, on the other hand, produces its flowers in large trusses, the individual blooms of which are not much larger than a sixpence. It is by far the better variety, as Fortunei is not only single flowered, but a very shy bloomer. Banksia lutea is the same as B. alba, except that the colour is deep yellow. Both, but especially the white variety, are very sweetly scented. A. P.

ROSE MME. ALFRED CARRIERE.

THIS ought always to be reckoned as one of the indispensable Roses for the garden, and even those who have large collections of Roses of its class are enthusiastic in its praises. It has handsome foliage, which is generally healthy and free from ordinary Rose troubles, while the large white flowers are lovely in form and tinged with just a touch of blush. It is a splendid Rose for arches, pillars, pergolas and trellises, and on any of these will be delightful for a long season, as the blooms are produced almost continuously until well into winter in favourable situations and in moderate seasons. It will give satisfaction when many others of its class fail. SUB-ROSA

THE FRUIT GARDEN.

SOME GOOD CULINARY PLUMS.

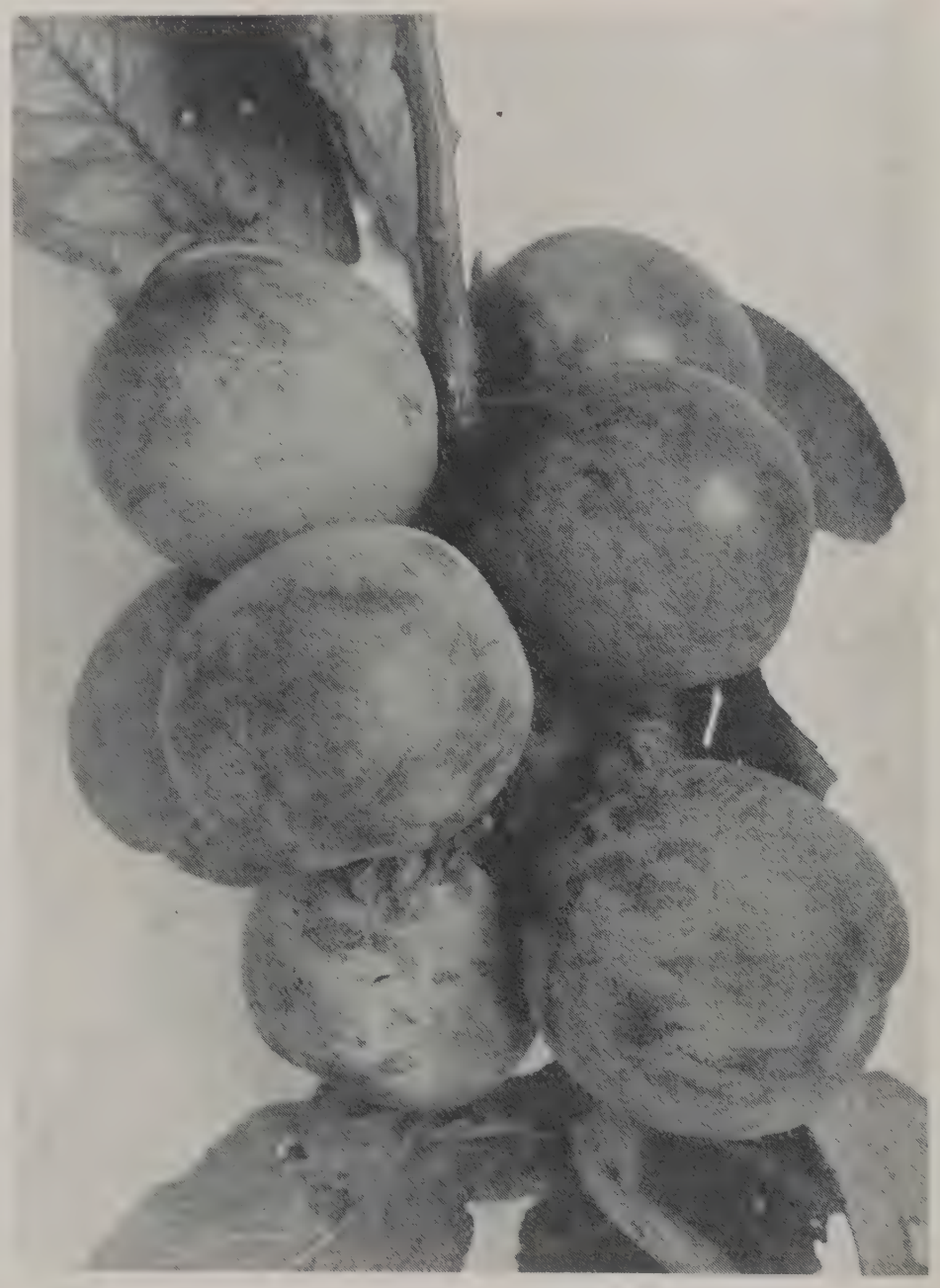
THE Plum illustrated (Cox's Emperor) is a well-known variety and heads the list of good cooking Plums when in season. Few fruits vary more than the Plum, as in some soils, with very indifferent culture, a variety will bear grand crops, whereas in other soils, even if given special culture, it fruits sparingly. I have seen the above variety in amateurs' and cottagers' gardens in the West of England cropping so freely and regularly that the trees were a source of profit, and in other places it has been almost a failure. Certainly the soil has a great deal to do with fertility, and Plums do not like severe pruning. If cut hard every year the trees make a lot of thin wood, but few fruit-spurs. As a cordon I have, in the open, found Cox's Emperor far less profitable than when grown with more freedom, and this applies generally to the strong-growing sorts. By this, however, I do not mean the trees should never be pruned — thinning out crowded wood is most beneficial, and when this is done much better fruit is obtained—neither do I advise the large cooking Plums grown as espaliers.

Better results are secured from standards and pyramids when the roots are occasionally root-pruned, and in soils deficient of lime or chalk a liberal quantity of old fine mortar, chalk or burnt refuse should be placed near the roots after the operation. This made thoroughly firm by ramming will often ensure a crop when other means fail. An amateur recently asked me, "Do my large Plum trees want manure?" and I said, "No, they have been too well treated." They had been severely pruned, the roots heavily manured, and the result was a forest of leaf-buds and scarcely any fruit, and the trees, owing to the hard pruning, were gumming badly. I note this to show that Plums require more freedom, and if curbed at the roots top pruning is a simple matter. Each year the trees make a lot of fruiting wood, and judicious thinning out suffices, say, once in three years.

The variety illustrated is also well known in the Midlands and western parts of the country as the Denbigh Plum, the large, handsome fruit being a roundish oval, skin a dark red covered with small dots and a thin bluish bloom; indeed, in many respects it closely resembles the well-known Pond's Seedling, but is a shorter fruit. It has yellow flesh, which does not leave the stone readily. The fruits ripen at the middle of September. In a northern part of the country I have grown Cox's Emperor on an east wall and thus obtained excellent results when it failed as a standard; indeed, many of our best Plums well repay wall protection, placing the dessert varieties on a wall with a good aspect. Cox's Emperor also does well in many parts of the country on a north wall, care being taken to train in new wood freely. The northern position retards the blossoming period, and the trees with sharp frost in a late spring escape, whereas in the open they are injured, so that there is a considerable gain by growing the Plum in different positions.

No note on Plums would be complete that did not mention the value of such excellent cooking sorts as Victoria, a well-known variety and probably the best amateurs' Plum grown; Early Orleans or Wilmot's Plum for August supplies; and Rivers' Early Prolific for first use. This ripens late in July and the tree is of medium vigour, doing well as a small standard. On a wall it ripens much earlier, and is by no means a bad dessert variety when grown thus. The Czar must not be omitted for August use; this is excellent for cooking or dessert. Belgian Purple is a reliable bearer; it is a rich red fruit and grows where others fail. Washington also is a very good, large, yellow Plum, but requires root-pruning at times. In the Midland Counties the Pershore Egg Plum is a great favourite on account of its grand cropping qualities; it is not a rich fruit, but most useful for cooking purposes. I have already referred to Pond's Seedling, and for later supplies President is excellent. Monarch also is a grand fruit, a little earlier than President, a good cooking variety and keeps well in wet seasons.

G. WYTHES.



A GOOD SPRAY OF PLUM COX'S EMPEROR.

HINTS ON VINE CULTURE.

WHILE chatting recently with an amateur about his garden, he remarked on the pleasure he derived from growing things in it, and added, "I grow everything myself." Now, there are thousands of amateur gardeners who do the same, and the great majority of them would welcome helpful hints on one of the most fascinating branches of gardening under glass, namely, Grape-growing. To watch the bursting bud, then to inhale the fragrance of the flowers in spring, to be followed by the delicate work of thinning-out the berries and, finally, to gather the golden-amber or blue-black clusters of ripe fruit, and to be able to say with pride, "I grew them," prove to be really very satisfying to the amateur. There are, however, obstacles in the way; there are right and wrong methods of treatment and insect pests and diseases to be met and overcome. Probably many enthusiasts are contemplating the building of new vineries, others the alteration of existing ones or the replanting with new Vines, and any hints on these matters will perhaps be useful.

The New Vinery.—I will refer to the new vinery first. Its position is an important point to settle. In connexion with its erection drainage must be considered. Never build, if it can possibly be avoided, so that the border in which the Vines are to grow is below the surrounding ground, especially if the position is such that a drain cannot be laid and connected with a free outlet. A border above the ground level, if only a little, is much warmer than one below it, and it must be remembered that Vines love warmth, especially at the roots. Heat is husbanded better in a lean-to structure than in a span-roofed one, and this means economy in fuel. Vines require light, too, and of course they get more of it in the latter kind of structure. Local circumstances must be taken into account, and so I say build a lean-to or a span-roofed house, whichever is best adapted to them. Always choose high ground, a site facing the south or south-west, and not the north, north-west or north-east. The maximum amount of sunshine should be secured for the Vines. A lean-to from 9 feet to 15 feet wide will do nicely, or a span-roofed house from 12 feet to 18 feet wide; the length, of course, will be optional. High structures are difficult to heat with success. The lowest may be 9 feet and the highest should not exceed 16 feet. A good foundation must be put in and the best red deal used, painted with four coats, namely, two before glazing and two after. Use 21oz. glass throughout. Embed the glass in the putty firmly and fasten down the squares with sprigs; do not use putty outside, as it gets separated in time from the wood, water soaks in and the decay of the wood follows. The initial cost is less and the upkeep, too, than where top putty is used.

Heating.—Put in a boiler of simple construction and plenty of pipes. A few would need heating to the extreme to maintain a sufficient temperature in the house, and so prove harmful; but by putting in three rows instead of two, or two rows all round the house instead of only along the front wall, the required heat would be obtained if the pipes were moderately warm, and this would be beneficial. For very small structures boilers which do not need brickwork in the setting are the best. For larger houses upright slow-combustion or check-end saddle boilers will give satisfaction.

AVON.

(To be continued.)

TYING AND TRAINING FRUIT TREES.

IN tying young trees see that the ties are not made tight. Another danger which must be averted is the main branches coming in contact with the wires. This is a common cause of canker, and likely to result in permanent injury to the trees. A thin piece of wood placed between the branch and wire will prevent this evil. In the case of nailing, do not drive the nails so near the branches as to injure them. This also is often the cause of canker.

THE KITCHEN GARDEN.

HOW TO GROW MELONS IN FRAMES.

JUST now a good deal is being read and heard about the wonders of the French garden, with its fine crops of early Lettuces, Radishes, Cucumbers, Carrots, Melons, &c. ; but it is about the Melon in particular that I ask readers' opinions. Do I understand that the Melons are to be grown in the very rich soil advised for the other crops? If so, I rather fancy we shall have a very fine frame full of leaves at the expense of fruits. My own experience is that the Melon does far best in moderately poor soil, and to convince other readers I enclose a photograph of one of our frames with an account of the method of culture which I follow. The variety is Sutton's Royal Jubilee, and I find none to beat it, either in the setting of the fruit, the growth of the plant, or the flavour.

We start our frame about the last week of February. We first shake into a heap about three loads of long stable manure, after five or six days we turn it, well shaking it to pieces, and rebuild the heap, repeating the process twice more. Then we make up the bed so that it is 1 foot longer and wider than the frames, each of which is 8 feet by 6 feet. We never tread our beds, but just beat the manure down with our forks as the work proceeds. When it is finished we lift the frame into position, put on the lights and let all settle down together for three days. We then give the bed a good hard scratch down all round with a fork to remove all loose straw, which is packed on the outside for a lining.

Then we prepare the inside. First we place 5 inches or 6 inches of ordinary garden soil all over, then mix together four bushels of turfy loam (chopped up with a spade), one bushel of leaf-mould and a little wood ashes, and this we equalise into four heaps, two under each light. As soon as the bed has warmed through, which will be in two or three days, a thermometer should be plunged into it, and when it reads 75° to 80° it is ready for the plants. I can always tell when the bed is right by thrusting my hand through one of the heaps, but as a guide to the inexperienced a thermometer must be used, as sometimes the beds are too hot for several days.

The plants we raise in 3-inch pots in a bed prepared in the same way as for Cucumbers in January. We place one plant in each heap ; at the same time a seed is put in beside it, as this will save time should the plant from any reason damp off or die. Should both grow, the one from the seed must, of course, be taken away. As soon as the plants have grown four or five rough leaves the tops are pinched out, and this causes them to send out plenty of side growths. These are trained all over the bed, and as soon as enough blooms are out we go over all very carefully by hand to ensure fertilisation. Each side break is pinched off one joint ahead of each fruit. We always try to set all the blooms at one time, so that all the fruits swell together ; if they are done at odd times some get the lead and the others never seem to get any size. In the early stages of the bed a little air must be allowed always to let the steam escape ; just a little at one corner is all that is needed.

The frame should face due south, as the very life of the Melon is plenty of sun. We never shade ours, but give plenty of air whenever possible, that is, when the sun gets more powerful and the wind is not too rough. We give a good syringing twice a day when the plants get strong, but keep them quite dry for a week or ten days when we are about to fertilise. As soon as the fruits are swelling a good watering is given with tepid water ; indeed, we never use cold water at all. Several good waterings are given through the growing season, but water must be withheld when the fruits begin to ripen or they will split. In the frame shown in the illustration we had nineteen good Melons.

Danehurst, Epsom, Surrey. GEORGE BOYD.

SPINACH AND SEAKALE BEET.

EVERYONE who has had to cultivate Spinach will be well aware of the summer varieties' propensity for bolting at the slightest touch of drought, a circumstance which occurs during most summers at one period or another. In small gardens or where space is limited, or, again, where the soil is not of the best for growing summer Spinach, a trial of the Perpetual, or Spinach Beet, is usually sufficient to guarantee it a permanent place on the vegetable-list for future seasons. Its cultivation is identical with that of the ordinary garden Beet, both as regards sowing during April and May and thinning and distancing the resultant crop. By pursuing the above methods a good crop of leaves may be gathered from July onwards until late in the autumn, when the plants may be dug in for manurial purposes. To gather early dishes during March, April and May, a sowing of seed during August produces a crop of plants that will stand through the winter, and these will be found a valuable addition to the vegetable supply at a season when outdoor vegetables are scarce. When properly prepared for the table, by removing the mid-rib when the leaves gathered are large, it will compare very favourably with either summer or winter Spinach, many people declaring they cannot detect the difference between the two.

Seakale Beet differs from Spinach Beet from the fact that the stalks only, as a rule, are gathered, dressed and served as ordinary Seakale ; however, sometimes it is convenient also to use the leaves of this variety as a substitute for Spinach, should there be a failure elsewhere. From a variety such as Sutton's Silver or Seakale Beet we get splendid large ivory-white stalks, which remain tender and in a usable condition for quite a considerable time. From an April or May sowing, many good dishes can be pulled until severe frosts cut down the leaves, leaving only a short tuft over the centre ; but even then it may be forced as it stands, by placing Seakale pots, boxes or barrels over the roots and piling hot-bed material around them to a good depth as for Rhubarb, or, where a Mushroom-house, under a greenhouse stage or other handy position is available, the roots may be lifted as required, and blanching of the tops proceeded with, as is done in the case of Seakale. MIDLAND.

THE EDITOR'S TABLE.

AN INTERESTING CONTRIBUTION FROM MESSRS. VEITCH OF EXETER.

Messrs. Robert Veitch and Sons of Exeter send us a most interesting collection of flowering shrubs which at this season are particularly welcome. Among them were Garrya elliptica, a beautiful shrub which is fairly well known and should be extensively grown. Many of the beautiful silky green and carmine catkins on the sprays sent were 9 inches long, and the sight of a good specimen covered with these is one to be long remembered. Lonicera Standishii is a winter-flowering Honeysuckle that is most welcome on account of its delicate fragrance. The flowers are small and white, and show up well against the light brown stems. Among hardy Heaths were Erica mediterranea hybrida, a beautiful pink-flowered species ; E. m. alba, with white flowers ; E. australis, erect habit and pink flowers ; E. codonodes, columnar habit and large pure white flowers, very handsome ; E. arborea, flesh-pink flowers with scarlet anthers ; and E. Veitchii, white flowers that are sweetly scented. In addition to the above a splendid bunch of Rose haws or fruits were included, these being large, solid and very brightly coloured and gathered from the well-known Rose Una, a single-flowered variety of buff colouring. For decorative purposes at this season these fruits are most valuable.

A GOOD CROP OF MELONS

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—The severe frosts of the past few weeks have prevented planting being done; but as soon as the weather becomes open, work of this description should be attended to without delay. Any herbaceous plants that were not dealt with in the autumn may be lifted, divided and the best outside portions replanted at this season with a good prospect of success. Plant firmly, and if frosts are experienced immediately afterwards it will be well to look to the plants when the ground has thawed, as frosts frequently lift or loosen newly-planted specimens. Slugs are particularly fond of the young shoots of Delphiniums and other succulent herbaceous plants, frequently attacking them before they appear through the soil or, at least, as soon as they can be seen, hence steps must be taken to check their depredations by placing sharp coal-ashes round each plant. St. Brigid Anemones and Ranunculuses may be planted during the present or next week. It is best to scoop out the soil for a depth of 2 inches; then place the tubers in position, claws downwards, and cover with the soil removed. This is much better than planting with a trowel or dibber. Six inches apart each way for the Anemones and 9 inches for the Ranunculuses is a good distance. If the soil is at all heavy a good sprinkling of coarse sand may be scattered over the tubers before replacing the ordinary soil, as this will help them considerably.

Rose Garden.—Now is a good time to complete planting providing the weather is open. Owing to the frosts there is doubtless much of this work to be done. Plant firmly and stake at once all standard or half-standard specimens. In the case of bushes long growths may be shortened one-third their length, as this will prevent the plants being blown about badly by the wind and will do no harm in the way of inducing early growth. Where plants have been well protected from frost it is a wise plan to remove the protective material from the stems, otherwise precocious growth will soon commence and this will be badly injured by cold winds later on. The protective substances should, however, be kept close at hand so that they may be placed in position should a very severe frost threaten.

Greenhouse and Frames.—Seed-sowing will now be in full swing in this department. Such bedding plants as Asters, Zinnias, Verbenas and Stocks are best raised in frames, preferably on a gentle hot-bed. Use shallow boxes or pans which are thoroughly drained and employ finely sifted soil that contains a large percentage of sand. Retain the rough portions for placing over the crocks in the bottoms of the receptacles before putting in the finer soil. All must be made moderately firm and the seeds scattered evenly and thinly. It is safe to say that more losses among seedlings occur through thick sowing than from any other cause. After the seedlings are up they must be kept near the glass and given air, otherwise they quickly damp off, this applying especially to the Stocks. A little seed of the Asters and Stocks should be retained for sowing in the open at the end of April; plants obtained thus usually flower when the indoor-raised specimens are over. Cuttings of most specimen greenhouse plants will now be available, and these may be inserted in pots of sandy soil and placed in a propagating case or covered with bell-glasses until they have rooted.

Kitchen Garden.—In all open weather this department will be an exceedingly busy one. A good sowing of early wrinkled Peas may be made. Carrots, Onions, Lettuces and Radishes may also safely be put in, and many growers will already have sown some. For Carrots choose one of the early horn varieties, such as Carter's Early Market or Sutton's Champion Horn, as they form roots very quickly and are of excellent quality. Tomatoes sown under glass early in the month will now, or shortly, be ready for removal from the seed pans or boxes. A good plan is to prick them off 3 inches apart into boxes that are about 3 inches deep, using soil composed of loam two parts, leaf-soil or thoroughly decayed and flaky manure one part, with a good dash of coarse sand. Well drain the boxes and make the soil moderately firm. The plants must be kept in a rather close atmosphere for a few days after this transplanting, as the small seedlings usually have none too many roots. When they have grown so that the leaves of separate plants well touch each other, they may be potted singly into 2½-inch pots. Onions that were sown under glass in January will need the same treatment now; some growers prefer to put each little seedling into a 2½-inch pot instead of a number in a box, potting into larger sizes as the pots become filled with roots. Where plenty of room and time are available, this is probably the best method to adopt. H.

1.—A GOOSEBERRY BUSH PREVIOUS TO THE WINTER PRUNING. NOTE THE WEAK AND USELESS GROWTHS IN THE CENTRE.

PRUNING AND INCREASING GOOSEBERRIES.

WE have now reached a period when it will be necessary to deal with the winter pruning of Gooseberries, and unless this work is taken in hand in the near future it will be too late to think of doing anything until another season. There is the probability that many of the bushes may have emitted growths from their base, this being brought about by "eyes" left on the lower part of the cuttings which subsequently develop into vigorous shoots. These basal shoots must be cut down without hesitation and overcrowded growths in the superstructure cut out or spurred back.

In Fig. 1 we have an example of a Gooseberry bush that has been very much neglected, in which the growths are far too numerous and the prospects of satisfactory fruiting to some extent rendered unpromising. It will be noticed how the growths crowd into one another, so that the gathering of the fruit is almost an impossibility without subjecting the hands to a severe scratching. It will also be observed that the main stem of the tree stands out quite by itself, and some little distance from the surface soil the bush branches out into numerous growths, and these should be so pruned that they stand out as nearly as possible equidistant one from the other. In some cases it is an advantage to slightly prune back the points of the shoots, thus concentrating the energies of the plant on the fruit-spurs that are retained, and which invariably yield their supply of berries of the very best kind. A comparison between Fig. 1 and Fig. 2 will show very clearly and distinctly how the pruning should be carried out.

2.—THE SAME BUSH AFTER WINTER PRUNING. NOTE HOW THE WEAK GROWTHS HAVE BEEN SPURRED BACK.

Readers should remember that the growths removed may in most instances serve a very useful purpose for perpetuating the different varieties. All too often these are thrown away or burnt, whereas were the better pieces among them used for cutting purposes it would be an easy matter, within two or three years, to bring into being quite an interesting number of useful little bushes. Fig. 3 aptly portrays, first, an ordinary cutting removed at the time of winter pruning, secondly, the same growth prepared as a cutting, and subsequently after a season's growth it is represented with several branching shoots. Shoots some 10 inches to 12 inches long are better than those of smaller growth. They should be prepared with the idea of preventing sucker growths developing, and to effect this object both thorns and "eyes" should be removed from the lower part of the cutting, leaving perhaps three or four—more or less—"eyes" and thorns at the top, from which the lateral growths will subsequently evolve.

The first illustration in Fig. 3 gives a fairly good idea of the character of growth a proper cutting should represent. The figure in the centre of the illustration shows the same growth properly prepared for insertion as a cutting. To complete the making of the cutting it should be

3.—THIS ILLUSTRATION, READING FROM RIGHT TO LEFT, REPRESENTS THE KIND OF SHOOT SUITABLE FOR MAKING A CUTTING, THE SAME PREPARED FOR PLANTING, AND THE LATERAL GROWTHS MADE FROM SUCH A CUTTING THE FIRST YEAR.

cut across just below the lower joint and a small portion of the upper part of the cutting must also be removed. This and other cuttings should be adjusted in position in a shallow trench, and the soil made firm round about them. Some sort of order should be observed in their disposal and the varieties should be labelled to avoid confusion.

In the course of a season these same cuttings should make branching growths, much more vigorous, as a matter of fact, than those represented in the third item in Fig. 3. Here, it will be observed, the upper portion of the cutting only has emitted growths, these emanating from "eyes" that were retained when the cuttings were inserted.

In the course of another season these same young plants when pruned back will represent specimens somewhat similar to that in Fig. 4. We have in this illustration endeavoured to show the method by which these young plants should be winter pruned. Note how they have been cut back to "eyes," from which point we may reasonably expect vigorous growths to develop which in the course of a season's growth will form the foundation of a really excellent branching bush.

It may be well just to point out here that in pruning the young plants in their early history, in fact at all times, pendulous varieties need the most care when winter pruning is being done. Prune the growths to upper buds so that the resulting growths will have an upward tendency. Were these same pendulous growths cut just beyond the lower buds, this would have the effect of developing growths of an even more pendulous character than the plants then represented. D. B. C.

AN EASILY GROWN GREENHOUSE ANNUAL.

(TOURENIA FOURNIERI.)

CONSIDERING how easily this plant can be raised from seeds and how freely it gives us its flowers in late summer and autumn, it is most remarkable that it is so seldom grown in greenhouses, especially when we see many other inferior subjects taken so much care of. Providing the few details given here are carried out, those who own a greenhouse worthy of the name can raise a good batch of plants that will be exceedingly beautiful and attractive during the autumn months. The flowers somewhat resemble those of the Antirrhinum in shape, but their colour is not at all easily described, this being a mixture of blue, black, purple and yellow. The plants are semi-erect in habit and usually attain a height of from 8 inches to 12 inches. An interesting point about the flowers is that the stigma of each is highly sensitive. Like the stigmas of many other blooms, this is composed of two lip-like structures which normally are open, but when touched with a pointed stick or pencil quickly close.

Seeds are best sown in March or April, preparing some clean, well-drained pots or pans for their reception. The soil for sowing the seeds in must be of a porous character, and the top layer finely sifted. Scatter the seeds thinly and cover very lightly with fine soil, water in and stand in a temperature ranging from 60° to 65°, covering each pan or pot with a sheet of brown paper or a pane of glass, which must be removed as soon as the seedlings appear. Prick out early; then, when the seedlings are about 2 inches high, pot them off, three arranged in a triangle in a 6-inch pot. Some cultivators grow one in a 4½-inch pot, but a better effect is obtained if the plants are grown as advised above. For this potting, soil composed of equal parts of good loam and peat, with a little sharp sand and thoroughly decayed cow-manure, answers admirably, but it must not be made extra firm. The plants should be grown on near the glass, and will need the support of a few thin, twiggy sticks early in life. In addition to T. Fournieri there are several others worth growing, flava, asiatica and concolor (rubens) being the best. The first-named, which has yellow and black flowers and is pendulous, is an excellent subject for a basket.

THE TOWN GARDEN.

FLOWERING TREES ON LAWNS.—In spring and the early part of the summer, flowering shrubs and trees look very beautiful in the garden and especially on the lawn. Both the double and single flowered Hawthorn are charming, the pink and white flowers, with their delicious fragrance, being borne in small clusters, and forming long sprays nestling among the tender green leaves. These may be grown as bushes or trees, pyramid shape, or as standards; and, moreover, they neither make gross growth nor take up a lot of space, so that they are suitable for small lawns. For larger lawns the double white and the scarlet Chestnut are very effective subjects. If the lawn be large enough, a group of three trees in one corner would look very imposing. The double-flowering Cherry, Philadelphus (Mock Orange), Weigelas, Lilacs, Viburnum Opulus (Guelder Rose), flowering Currant and Pyrus Malus baccata (Siberian Crab) are all suitable, and will make good growth in an ordinary soil. In a rough corner—that is, one which is cold and bleak and in which the more tender kinds of shrubs and trees will not thrive—plant the green and the variegated Elder. These will grow in poor, shallow soils and both bloom and bear berries. All the different shrubs and trees named here may be planted now; but it would not be wise to delay the work if the weather is open. Put stakes to the standards, give water to all immediately the planting is finished and apply a top-dressing of half-rotted manure and rich loam. As the soil will get dry more quickly now than in the autumn, water must be given in due course.

SOWING SEEDS OF ANNUALS.—The seeds of half-hardy annuals should be sown in pans, pots or boxes and placed in frames, so that the seedlings will have a good chance to grow. Owners of town gardens ought not to depend too much upon border-sown seeds. The hardy annuals may be raised in the open border later in the spring, when the soil is warmer; but very early sowing of these is not advisable, and the tender ones must not be put in cold soil. The following kinds may now be raised, namely: Asters, Stocks (Ten-week), Zinnias, Phlox Drummondii, Cornflower, Calliopsis Drummondii, Clarkias, yellow Sultan, Sweet Peas (in pots), Tropæolums, Linaria reticulata, Chrysanthemums, Candytuft, Linums, Godetias, Mallows, Collinsia, French and African Marigolds and Tagetes signata pumila. The last-named is a capital plant for forming a low edging to a border of tall-growing plants, and also looks well in masses. Sow the seeds thinly; do not be tempted to put seeds of each kind in so thickly that the seedlings will smother each other. It would be much wiser to reserve a few of the seeds for a future sowing in case of mishap to those first sown. The soil used must be moderately moist, then watering will not be necessary for some time. Keep the frame darkened until the seedlings begin to appear, then gradually admit full light to them; also guard against excessive atmospheric moisture. If these rules be observed the cultivator will meet with success.

PLANTING GLADIOLI.—The bulbs of these may now be planted in light soils. Where heavy, clayey loam obtains delay the planting for a fortnight or so. Gandavensis, splendens, floribundus and psittacinus types must be put in at once in the light loams. Even then it will be advisable to use a mixture of leaf-soil and sand for scattering around the bulbs before the original soil is replaced on them. The bulbs may be put in 6 inches deep in lines or in clumps. These are beautiful flowers for an early autumn display, and well suited for growing in clumps in herbaceous borders. After the planting is done, put in labels to indicate the positions of the bulbs. In broad borders each clump may contain a dozen bulbs, in medium-sized borders from six to nine bulbs would make a suitable clump, and in very narrow borders three bulbs are sufficient. A space of about 9 inches ought to be allowed between the bulbs in the clumps. AVON.

4.—METHOD OF PRUNING A YOUNG GOOSEBERRY BUSH TO ENSURE THE FORMATION OF A SHAPELY SPECIMEN.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUIT DEPARTMENT.

VINES that are growing freely should during favourable weather have a little fresh air admitted; but do not raise the ventilators too high at one time at this season. When the outside atmosphere is chilly, 1 inch or 2 inches is quite sufficient. Keep the night temperature from 60° to 65°, according to the weather, a little less in preference to very hard firing. Syringe and damp all parts of the floors and walls more freely as the sun increases in power, and avoid a dry, parching atmosphere.

Peaches.—As soon as the new growth is from 1 inch to 2 inches long, remove some of the shoots which will not be required for extension or for fruiting next year; this disbudding is work of the utmost importance, but should never be too severely practised at one time. Aim to retain those shoots necessary for the formation of a good-shaped tree, and keep a good supply of fruiting wood from the bottom to the top of the trellises, gradually reducing the rest and always retaining the best-placed shoots at the base and on the upper side when possible. Leaders, when they have reached their limit, may be stopped. A slight syringing overhead daily, except when the trees are in flower, should be practised, allowing time for the tips of the leaves to get fairly dry by night. A temperature of 55° will be found suitable at night for some time, or a little higher in mild weather, and 60° by day, this rising with sun-heat. Ventilate very carefully when the weather is chilly.

PLANT HOUSES.

Gardenias.—Young plants raised from cuttings inserted last autumn will now require repotting Use clean, dry, well-drained pots and let the soil consist of fibrous peat and sandy loam with plenty of grit, and use it when at the same temperature as the house in which the young plants have been growing. Keep the plants in a stove temperature and syringe lightly twice daily during fine weather. To grow nice sturdy plants, it will be advisable to stop the young shoots about twice during the early stages of growth. More cuttings of the young wood, with a heel if possible, may be rooted, and if given good attention should grow into nice useful plants by the end of the season.

Eupatorium odoratum. — This useful autumn and winter flowering plant should be extensively grown where large quantities of flowers are in request. Insert the cuttings at once, and when rooted pot them singly in small pots, pinch out the leaders to encourage side growths and grow them on for a time in a moderately warm temperature, when later on, after the plants have been suitably hardened, they may be planted outside, to be lifted and transferred to pots from the middle to the end of September. Salvias, Solanums and many other kinds of plants may be treated in the same way.

Coleus thyrsoideus.—As these plants go out of bloom, let them be somewhat rested in an intermediate temperature for some time. If cuttings are inserted in April, they should by the end of the season have made good plants. Nothing is gained by very early propagation.

Justicia carnea.—Insert cuttings when procurable singly in small pots, in sandy soil to be grown on. It is a very useful plant for rooms, &c.

Tuberoses.—A few of these should be potted at intervals to maintain a lengthy supply of flowers. If the bulbs are strong, one planted in a 5-inch pot will suffice. Let the soil be that of fibrous loam, old dried cow-manure, leaf-soil and grit. Remove any offsets growing round the bulbs previous to potting. Use good drainage and pot moderately firm. Much water will not be required for some time. The pots can be placed in a newly started vinery or plunged beneath a stage free from drip in the greenhouse till they have started into growth. The foliage must be carefully watched and kept free from red spider.

Vallota purpurea.—Plants may be grown either in small pots singly, larger pots with five or more bulbs, or planted out in clumps in the greenhouse beds. We have several clumps planted out which have not been disturbed for several years, and these produce a large quantity of flowers annually.

H. MARKHAM.
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Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

HARDY FRUIT DEPARTMENT.

PLANTING TREES AND BUSHES.—If from any cause planting was not completed in the closing months of the past year, it may now be done with every prospect of equally successful results. Avoid a time when the soil is adhesive through wet or the after-effects of frost. In preparing the stations make a cavity at least 30 inches in diameter and 12 inches deep in the well-worked surface soil. Whether the underlying stratum should be similarly treated must be left to the discretion of the operator, who alone can best judge its character; at any rate, it should be deeply broken up and, if found very retentive, lime rubble or burnt garden refuse may be freely incorporated with it as this will benefit both trees and soil. Upon this loosened surface place good soil (fresh loam if obtainable), and make all firm, with a slightly raised centre upon which to place the base of the tree, with the roots gently sloping all around. Spread out the more fibrous roots and work a little specially prepared compost among them, after which the first-removed soil may be replaced, so that the roots are covered to a depth of not less than 3 inches; afterwards secure each tree to a stake or other support to prevent it being damaged by the action of wind.

Raspberries. — These are usually the last fruits to undergo the operation of pruning, and the mode of procedure varies according to the method of training adopted. If planted in lines and the canes secured to supports running parallel thereto, the canes may be reduced in numbers, so that when secured spaces of 6 inches or 8 inches remain between them. If strong and straight the canes may be reduced in length to 5 feet or 6 feet from the ground, while any that show signs of extreme weakness are best severed at the same level, so that good growths may ensue for another year. Many other systems of training are favoured, such as putting one or more stakes to a plant and securing the canes thereto, or by bringing the tops of one row to meet those of another and securing them so that an arch is formed; but the principle throughout is to avoid overcrowding and make secure against storms of wind.

Propagation of Bush Fruits. — Prunings of Gooseberries and Currants selected for cuttings may be trimmed and inserted in rows upon a north border; 12 inches by 6 inches apart is ample, and gives space for cleaning the ground in due course. Cuttings of Gooseberries should be as straight as possible and about 18 inches in length. In preparing, all the buds except four at the point should be rubbed off. White and Red Currants need very similar treatment, but more buds may with advantage be left. Black Currants, on the other hand, may be inserted without any manipulation except a clean cut at the base, as sucker growths from below ground with these are helpful in maintaining the vigour and symmetry of the plants.

STOVE AND GREENHOUSE PLANTS.

Potting. — Presuming that all foliage plants have before this been thoroughly cleared of insect pests and the possible accumulations, where near towns, of soot and dirt arising from the recent frost and fog, potting may be at once proceeded with, commencing with such plants as show signs of increasing vitality, and so continue until all are completed.

Propagation of Pot Plants must of necessity have due consideration at this season and the wastage caused by their employment as decorative subjects under conditions the reverse to their well-being made good. Cuttings of most kinds can be accommodated in a small frame or propagating case proper, but others, such as the heads of Crotons and Dracænas, that have lost their lower leaves and, consequently, their attractiveness, may be too bulky for this course.

JAMES DAY.
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Galloway House, Garlieston, Wigtownshire.

GROWING SWEET PEAS FOR SEED.

OUR readers will be fairly conversant with illustrations of Sweet Peas as grown for exhibition or garden decorative purposes; but it may be of interest to note on what an extensive scale they are grown for seed purposes by our leading seedsmen. The accompanying illustration depicts a portion of Messrs. Webb and Son's trial grounds at Kinver, near Stourbridge, a most delightful and healthy spot. As will be seen, the plants are remarkably floriferous, and demonstrate in an unmistakable manner the good culture given them by Messrs. Webb.

SWEET PEAS AT STOURBRIDGE.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Number of varieties of Sweet Peas for an exhibit (*H. G. M. P.*).—So much depends upon local circumstances that it is most difficult for us to give a definite reply to your query. We presume that the committee, in framing their schedule, try to so arrange it that the greatest number of those eligible shall be able to exhibit. In any case we think it would be wise another year to have a class for nine varieties as an experiment, and if this answered well it might, the following year, be augmented by a class for twelve varieties. Of course, finance has to be considered, and possibly the money for prizes may not be forthcoming. If all conditions are suitable, we think a collection of twelve varieties would be the best; but at the same time we should certainly retain the class for six sorts. We thank you for your kind remarks.

Flowers for July and August (*E. S. L.*).—You might sow such plants as Godetias, *Stocks, *Asters, Nasturtiums, Marigolds, Mignonette, Chrysanthemum coronarium, C. carinatum in variety, C. Morning Star, C. Evening Star, Alyssum maritimum, *Nemesias, Dianthus, Poppies of many kinds and others. Those with an asterisk before them require to be raised in slight heat; the others could be sown in the open and in succession if you desired to prolong the display. The Begonias may certainly be planted out as you suggest, but it is not particularly good practice. A better way would be to arrange them in shallow boxes with a little soil, and without glass they would start quite well, but must not be exposed to frost. Cannas and Dahlias may be early planted in the same way, but the crowns must be well protected. If not too deeply buried, the plants will not be much later in coming into bloom. See that the Dahlias do not present a crowded thicket of shoots.

Treatment of Lilium auratum from Japan (*R. M. Dillwyn*).—Place the bulbs in shallow boxes in a cool cellar as soon as they are unpacked and well examined. A little airing in this way will be helpful to the bulbs after so long a period of close confinement. A few days later the bulbs may be planted in comparatively dry soil, arranging them about 4 inches deep and freely covering them above and below with sand. There is nothing to be gained by waiting, as in the natural order of things the bulbs should now be rooting freely. There is no effectual way of curing bulbs that are actually diseased when received, and once the base is affected the entire central core or growth-crown of the plant will be affected also. The disease or rot is set up by the terrible mutilation of roots prior to the bulbs being prepared for transit in Japan, and young and old roots are cleared away to permit of the bulbs being packed in tempered clay. Where the bulb-scales are merely tipped by disease, a little cleaning and exposure will suffice; but if the base of the bulb is affected, the heart of the bulb has long since been permeated by the disease and the plant irretrievably lost.

Annuals for north border (*B. D. North*).—You might plant any of the annual Chrysanthemums, such as C. carinatum and C. coronarium, of which there are many beautiful varieties, white, scarlet, crimson-white and yellow in the same flower, and others having quite double flowers. The Stocks, Asters and Godetias would also be excellent and give a prolonged season of flowers. For the climbing plants you cannot do better than try the Canary Creeper (Tropæolum canariense) and Convolvulus major (Ipomœa purpurea). The first-named may be sown from March to May in the open ground, but the latter should be sown in April in pots if it is desired to flower it early, and again in May in the open ground to keep up a good succession of flowers.

TREES AND SHRUBS.

Plants for wall facing west (*W. R. Philpot*).—If you care to plant fruit trees against your wall, Plums, Pears or Cherries in variety will thrive in your soil. Should you, however, prefer flowering shrubs, you will find the following suitable. Evergreens: Ceanothus veitchianus, C. thyrsiflorus, Cratægus Pyracantha, Escallonia macrantha, Magnolia grandiflora, Cotoneaster microphylla and Garrya elliptica. Among suitable deciduous shrubs the following are all ornamental: Prunus triloba fl.-pl., Hydrangea petiolaris, Jasminum nudiflorum, Clematis montana and the variety rubens, Chimonanthus fragrans grandiflorus and Wistaria chinensis. Roses, of course, can be used, and such varieties as Gloire de Dijon, W. A. Richardson, Alberic Barbier and Dorothy Perkins should be included. A good mixed selection of plants would be: Roses—W. A. Richardson and Dorothy Perkins; evergreens—Ceanothus veitchianus, Escallonia macrantha, Cotoneaster microphylla and Cratægus Pyracantha; deciduous — Prunus triloba fl.-pl., Jasminum nudiflorum, Clematis montana and Hydrangea petiolaris.

Pruning back a Berberis (*N. W.*).—When the severe frosts are over you may safely cut back your Barberry; but in this case you must be content to forego a crop of flowers this season, as if cut back now you cannot expect it to bloom this year. In a general way a Barberry should be pruned, when necessary, immediately after flowering, in which case its blooming another year will be little interfered with, unless it is pruned back very hard. You give us no details of the treatment to which your Hyacinths have been subjected, hence it is difficult to say the cause of the trouble. If the bulbs when potted were plunged in ashes, they may have been allowed to remain too long in the plunging material, or it was, perhaps, kept too moist. If they were stood out of doors without plunging, they may have been affected by the frost before taking them into the greenhouse. On the other hand, if the bulbs were taken into the greenhouse directly after potting, flower-stems would be pushed up before the roots were sufficiently advanced to support them, and this would be likely to cause the flowers to decay. Water spilled in the interior of the crown when the buds were still young might also cause the trouble.

THE GREENHOUSE.

Cut flowers for winter (*Novice*).—With one row of pipes in the house you will not be able to do much in the way of forcing, and unless you have facilities for disposing of the crops locally, you had better not embrace too many kinds. Shrubby subjects, such as Azalea mollis, Lilacs, Magnolias, Staphylea colchica, Prunus triloba and Deutzia gracilis are all valuable for early work and for cutting; but, as you probably know, do not stand well when cut if given a long journey. These would be best grown under glass. Moderate supplies of Orange blossoms are always in demand. The best way to force the two first-named would be to obtain retarded plants next autumn. We do not know of anything in the way of shrubs that would bloom out of doors in midwinter and prove of value for market at the same time. Were we in your locality, we would grow such Roses as Liberty and Richmond to the exclusion of all other plants named for early work, securing good plants now and growing them on. Lily of the Valley, Narcissus in many varieties and Lilium longiflorum are also good for early work, and some of these in conjunction with the Roses should prove of service to you.

Greenhouse plant to flower as soon as possible (*C. Barter*).—An exceedingly difficult question to grasp, as you ask us to recommend one greenhouse flowering plant, a fast grower and to bloom as soon as possible. Hyacinths in pots may now be bought that will flower in a very short time, and other things as well. If you wish to grow the plants in your house, such subjects as Zonal Pelargoniums, Fuchsias and tuberous Begonias can be recommended. While we are always anxious to oblige our correspondents, the question itself is, from lack of information, often a puzzle to us. Should you require further advice and will state your requirements more definitely, we shall be pleased to help you.

How to grow standard Heliotropes (*L. E. H.*).—In order to obtain standard plants of Heliotrope, any varieties except the particularly dwarf ones may be chosen. It is useless to commence with bushy plants such as are used for bedding purposes, as they can never be made into satisfactory standards. Take the cuttings in early spring and root them in a close propagating case in a moderately warm structure. When rooted, they must be for a few days inured to the atmosphere of the house in which they are to be grown. After this they should be potted singly into small pots in a compost made up of loam, leaf-mould and sand. When established, which will in the spring take little more than a week, the most vigorous ones should be selected for growing into standards. These must not have their tops pinched out, but need to be supported by a single stick in order to encourage them to grow upwards as quickly as possible. They will soon need repotting into 5-inch pots, and when these are full of roots larger ones may be employed. As the plants grow, all side shoots must be removed directly they make their appearance. It is very probable that in time a flower cluster will be formed at the top; if so, this must be at once pinched out, which treatment will cause a shoot to push immediately below the flower cluster. As soon as it is sufficiently advanced this must be tied erect, in order to form the upright stem. When this last has attained the height required, it may be allowed to branch and thus form the head.

Azaleas unhealthy (*Devonia*).—The few remaining leaves on the enclosed sprays of Azalea are very badly infested with thrips. These pests are sufficient to account for many of the leaves dropping, and what is more, their presence in such numbers would suggest that not only has the atmosphere of the house been kept too dry, but at times the roots also. The only chance to get your Azaleas out of the moribund state into which they have fallen is to repot them and encourage the formation of new roots. The soil for the purpose should be good fibrous peat with a liberal admixture of rough silver sand. In repotting, the plant must be turned out of its present pot and as much of the old soil as possible removed. This is best done with a pointed stick, care being taken not to break more of the delicate hair-like roots than is necessary. If the roots are in a poor state, which is very probable, it may be found that with the removal of the old soil the ball of earth is considerably reduced in size, and consequently the plant or plants may with advantage be put into a pot smaller than before. The pots must be quite clean, effectually drained, and large enough to allow a space of little more than half an inch between the ball of earth and the side of the pot. The new soil must be worked down firmly and regularly, otherwise if left loose in any place the water will drain through and leave the old ball of earth dry. After potting, these old Azaleas should be placed in a structure kept closer and warmer than an ordinary greenhouse, and be frequently syringed

overhead. This will encourage renewed activity at the roots and the production of new shoots and leaves. The structure in which the plants are placed must be shaded from the sun's rays.

Value of Cypripedium insigne (*Dubious*).—The value of a plant depends to a great extent upon its condition, and it is very difficult to set a value upon any Orchid without seeing it. If the Cypripedium insigne is in good condition it will be worth half-a-guinea, and the Vanda tricolor, if in the same state, one guinea.

ROSE GARDEN.

Artificial manure for Roses (*R. E. T.*).—You will find some form of guano an excellent stimulant to apply to your Roses in conjunction with cow-manure. There are several good sorts on the market, and we would refer you to our advertising columns for them. Soot is very good, so also is bone-meal, but this latter should be applied at once. House slops saved in a tank and applied, well diluted, during May and June would be also an excellent stimulant.

Transplanting Rose cuttings (*A. B. L.*).—If possible, lift off the frame you are wanting and leave the cuttings where they are. Should this not be practicable, lift them very carefully, with the soil adhering if possible, and place them in a sheltered part of the garden until April, when you can plant them into their final positions should they be rooted. It is well to prepare a small trench prior to lifting the cuttings; then you can place them, with soil attached, into this trench and cover over the soil with that taken out of the trench. If the soil will not adhere, just lay the cuttings into some gritty soil until the time named. Should you have room for a few 3-inch pots on your hot-bed, you could pot up some of the cuttings and place them on the hot-bed. This would assist them to root better than any other treatment, providing they are in a healthy condition when potted. If the cuttings are only callused over at the base, they will root by the aid of the warmth from the hot-bed. By callused we mean the formation of white matter at the base of the cutting from which eventually the roots emerge.

Roses in small tubs (*E. E. H.*).—Considering that the tubs will be exposed to the sun very much, we are afraid you will find the leaf-soil and sweepings much too porous for the welfare of the plants. They will need shielding from the burning rays by some means, and you must water them freely from May onwards. It would have been better if you had added some good holding loam with the other mixture; but you cannot do this now. The mistake can be rectified in the autumn. You will need to prune the plants a little during the month of March. Cut them back to within 12 inches to 18 inches of the top of the tub. You must be careful how you stimulate the plants until they have taken a good hold of the soil, but a handful or two of bone-meal to each will not harm them. This should be placed on the surface at once and lightly covered over with soil. In May and June give the plants a watering with soot water one week and guano the next. About a pint of the former made into a paste, then mixed with three or four gallons of water, would be the right amount. A teaspoonsful per plant of guano would do. Mix this into a gallon of water and apply, but see that the soil is moist previous to giving the liquid. Should this not be so, give the plants a good watering overnight. We have seen splendid Roses grown under similar conditions to those you name, but you must be very watchful to see that the soil does not get too dry during May and June, and, in fact, all through the summer.

Seeds of Hybrid Sweet Briars (*Mrs. R.*).—We know of no firm of seedsmen who sell seeds of Lord Penzance's Sweet Briars. If you are desirous of raising some of these Briars from seed we suggest that you ask some of your friends who possess some well-developed hedges or shrubs of these charming Briars to let you have some of the heps, if the birds have not already partaken of the majority. These Briars seed very freely, a few of them making quite a pretty feature in the autumn, and as soon as the heps are ripe they should be gatherd and stored in damp sand until the present time or sown when gathered. The seedlings will vary considerably, some of them even producing semi-double blooms; but it is a slow process to obtain plants for hedge-work in this way. It would be much better to buy some budded or own-root plants, which may be obtained at about 9s. per dozen from our leading nurserymen. Cuttings root very freely if inserted in October. If you bought a plant of each sort (there are about sixteen) and planted them out 6 feet apart they would afford you a lot of cuttings by next autumn.

Cow-manure in liquid form for Roses (*R. E. T.*).—A paraffin cask is one of the cheapest and best articles you can obtain for the liquid manure. You can place it in an out-of-the-way spot and stand it on three or four bricks. You need not fear any leakage. When the time comes for applying the liquid (about May or June, put a peck or so of fresh cow-manure in an old porous bag and drop it into the tub. Then put about half a peck of soot in another bag; place this also in the cask and fill up the latter with water. In three or four days the liquid is fit to use and may be applied neat. After filling up the tub once more you should renew the manure for a third supply of liquid. The bags should be moved about occasionally while in the tubs.

Rose growths injured (*A. Reid*).—It is well known that Rose growths attached to wire will perish in an unaccountable manner during the winter. We have frequently had the same thing happen when we have placed a wire label on the growth. Undoubtedly there is some magnetic force set up which causes the mischief. Probably in your case the friction caused by the wind would account for the injury appearing where the growths were tied, because the growth you sent was a soft, pithy one and should have been cut away in any case. We certainly think it would be advisable if you could place some laths or other form of wood between the wire and the shoots of the Roses. Of course, there might be something deleterious in the green paint, but we do not think so.

FRUIT GARDEN.

Peach Royal George dropping its buds (*P. H. R.*).—You have stated your case very clearly, and we quite understand the position and sympathise with you. The heavy crop you permitted the tree to bear no doubt has had something to do with the mischief; but we think that the principal cause of the trouble lies in the fact of your defoliating the tree of its leaves before they had time to complete the function of developing and ripening fruit-buds for next year. Without the aid of its leaves it is quite impossible for the tree to accomplish this. No doubt it will be a lesson to you to never again forcibly take the leaves off a Peach tree, but always allow them to fall naturally. Until they do so you may rest well assured that they have some essential duty to perform. It is the same with over-cropping; it only leads to failure in the future. Dame Nature will have her revenge! Provided the border is well drained we do not think the watering was to blame.

Pruning a pot Vine (*W. Frank*).—As the Vine has been in a pot for so long we are afraid the soil has become exhausted, and not much, if any, fruit can be expected from it. It would stand a better chance of succeeding if it were planted out of doors in a prepared border and the stem taken in through a hole in the wall. We presume that the branches marked C and B on sketch (which you say are of the thickness of an ordinary pencil) are of last year's growth. If so, they should be cut back to their thickest part, say, half their length. The young shoots which will emanate in due time from the shortened shoots may produce a few bunches of Grapes. *Re* your other suggestion, we fear it is impossible to adopt it at present. We already have too many demands on our space and much valuable matter has to be left out. However, it shall be borne in mind, and we thank you for the hint.

Paraffin as a winter wash for fruit trees (*H. W. T.*).—To half a pint of paraffin add half a pound of soft soap. Thoroughly dissolve the soap, and mix the two well together in two quarts of warm water. Add to this four gallons of rain-water, when it is ready for applying to every part of the trees in the form of a spray, either by using a syringe or knapsack sprayer. Paraffin does not easily mix with water; therefore, while one man is applying the emulsion, another should be churning it with a syringe by drawing it in and syringing it back again violently into the can.

An old Apricot tree to propagate from (*Flora*).—Your best way will be to consult a fruit tree nurseryman, who would be able to graft as many as you may desire, as they have generally prepared stocks on hand for the purpose. Failing this, the only thing to do is to pull off (full length) young shoots of last year's growth at their junction with the older wood, tearing off a little of the latter in the operation. Insert these cuttings 6 inches deep in fine sandy soil in a position out of doors facing north. Ram the soil hard round the cuttings and let them remain until the following autumn, by which time many of them will have emitted roots. They should then be planted in sunnier and warmer positions.

MISCELLANEOUS.

Arrangement of garden (*Norwich Amateur*).—Your garden is so small, 60 feet by 18 feet, that your plan of it seems almost too elaborate. Still further, you do not give the position of the house, but presumably it is at the east end. On the north side you have a corrugated iron fence, height not given. As that looks south it is your warmest position, and close to it, supported by wires or wood trellis, you could train horizontal Pears and Green Gage Plums; but the position is rather warm for a Victoria Plum, which if flat-trained should do best on the similar fence looking east. The open space next the arched trellis you probably will have turfed, and beyond that is a flat-trained Cox's Orange Apple tree, which we assume as an espalier you hope will grow to make a break across the width between the turf and the vegetable ground behind. This is a very small space for such a purpose, and would have been better occupied by planting on it Gooseberry and Currant bushes, Raspberries and Strawberries. Close to the iron fence, on the south side with a north aspect, you could plant Morello Cherries and Black Currants. It is difficult to give an opinion as to the merits of any garden plan on paper; the site needs to be seen to determine how best it may be utilised. With so small a garden we should prefer to devote it to either flowers or fruits absolutely. You can plant for climbing Roses Dorothy Perkins, pink; Dundee Rambler, white; Alberic Barbier, creamy white; and Paul Transon, soft salmon. If you plant another flat-trained Apple tree beyond Cox's Orange Pippin, have Allington Pippin or James Grieve. We have no recollection of the small garden plan you refer to. You will find it wise to let your plan grow under your eyes or, perhaps better still, have no plan at all, but just plant the small space at your disposal as you may fancy. This will give you far more pleasure than slavishly copying any plan.

LEGAL POINTS.

Master and servant (*W. G.*).—There is no rule preventing a master giving his servant notice at any hour of the day. The length of notice is governed by the original arrangement of the parties. If nothing was specially agreed upon, the rule in the case of domestic servants, including a head-gardener, is that they are entitled to a month's notice, which takes effect at the expiration of one calendar month from when it was given. Unless the conditions of hiring expressly provided that the master should pay for removals of the servant's furniture, the master cannot be called upon to bear the expense.

Objectionable erection (*Oaks*).—A man who had bought a small field when he was more prosperous than he now is, having been recently ejected from a public-house which he held as tenant, has bought a third-class railway carriage, put a stove in, &c., and is using it as a temporary dwelling-house. The fact that it is unsightly is nothing, and there is no evidence that it amounts to a common law nuisance, so you cannot take legal proceedings to stop it. But if the urban district council has express powers under its bye-laws to pull down all new buildings which do not comply with such bye-laws, it is possible that the council may intervene and so do you a good turn.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be dealt with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

THE CLASSIFICATION OF DAFFODILS

By the Royal Horticultural Society.

[*A reply to Mr. Engleheart.*]

WHEN I wrote my last notes and promised some comments on the Royal Horticultural Society's Daffodil classification, I had no idea that an article from Mr. Engleheart would appear in the same number. It is a happy coincidence, as we have now before us his own views on the subject, and also, let us hope, the views of those for whom he speaks. "Some of those most closely interested" have evidently written to the great prophet, "Come, curse me this classification." And he has cast his eyes over the little shilling list and studied it, and then (quite unconsciously, of course) he has written, "How goodly are thy divisions, O council! and thy nomenclature, O committee!"

For what do we find? One, and only one, real difficulty mentioned, namely, the somewhat heterogeneous company that find themselves together in Class 7. The others exist only in the imagination of the writer, for "Poets" will still be "Poets," natural classification will be absolutely untouched, the same seed-pod will continue to bring forth different types, and Messrs. Barr can go on arranging their catalogue exactly as they please. These things are not affected, I am happy to say, else indeed it would be a revolution in the ways of Nature and of men that this unassuming little list has caused.

I will now take the article *seriatim*. The keynote of the whole is struck in the title "The *New* Classification of Daffodils." For once the usually accurate Mr. Engleheart has allowed himself to use a word in an inaccurate manner. We can hardly describe anything as new unless something similar already exists. Now, I maintain, from a fairly wide experience, that, as far as judging at shows is concerned, there has been no recognised classification. Some wished to go by Baker, some by Messrs. Barr's list, others by parentage. To this day I know Mr. Watts, who showed Peach at Birmingham as a Parvi, considers himself an aggrieved mortal because of the happy-go-lucky method of judging at present in vogue. No, the classification of the Royal Horticultural Society is no *new* one in the sense that it is intended to supersede any other; it is rather a first attempt from headquarters to give the Daffodil world a convenient working arrangement for *show* purposes and to meet an acknowledged want.

The first column and a-half of Mr. Engleheart's article deal with points which neither affect the goodness nor the badness of the arrangement. However, I would point out, first, that it was the council themselves who appointed the classification committee, and the procedure was normal; secondly, that no extraordinary blunder has been made with regard to Mr. P. R. Barr's name, except by Mr. Engleheart himself, for the council nominated Mr. W. Barr and not Mr. P. R. Barr; and, thirdly, a better estimation of the purposes of the committee can be obtained from their completed work than from the isolated views of individuals who naturally lay stress on that particular aspect which most appeals to them as individuals.

Coming now to what one might call criticism on the work itself, Mr. Engleheart puts in the forefront of his remarks, as if he intended it to bear the heat and burden of the day, the "insuperable fault" that it is not a "natural classification." I conclude he means what is usually called a "botanical classification." If I am right, I think I may say this is precisely what is intended. It is a purely arbitrary arrangement which can be used for the passing needs of shows, but which will leave untouched the natural divisions of botanists, and which may sink into a well-earned oblivion when its ephemeral work is done. "*Naturam expellas furcâ, tamen usque recurret.*"

Division 7 contains strange bedfellows, everyone will admit; but I would urge that it was never intended to leave them as they are. Sub-divisions are contemplated here as in other sections (page 3, Royal Horticultural Society's Classification); and, further, I would point out that varieties with more than one flower on a stem are very nearly a negligable quantity at shows; hence the importance of Division 7 as a division is considerably lessened. My experience of Hyacinth, mentioned by Mr. Engleheart, is diametrically the reverse of his—with me it generally comes with more than one flower on a stem. The difficulty of the same variety varying in the number of its flowers from year to year is present now, and is a real pitfall to the unwary. In 1907 Hyacinth may have been shown in a class for, say, twenty varieties, "three blooms of a variety, neither more nor less," when it had only one bloom to a stem; but in 1908 the same variety might be set up in the same class and the unfortunate exhibitor not notice, or think it did not matter, two blooms on one of the stems. Result: Disqualification and disgust. This is impossible if the Royal Horticultural Society's classification be adopted.

In Division 1, attention is called to the fact that "flowers so totally distinct by nature and to the eye as Ajax proper, cyclamineus, hybrids of triandrus and Bulbocodium" are classed together. Well! this is nothing new. Both

Baker and Barr put them all in Group 1 (Magni-Coronati), and in a class for twelve actual practice it never happens, and the difficulty, if it is one, does not arise. The "Poet" question can easily be solved, as is suggested on page 3 of the Classification, by sub-dividing Division 4.

In concluding my remarks, I would refer to the last sentence of Mr. Engleheart's article: "This new classification ought not to have been launched until more practically complete." It is a fair criticism. No one for a moment will dispute the fact that to have issued a complete list would have been the ideal thing to do; but in the rough and tumble of life we have to be content with the best possible, and as the need was urgent and as every season the multitude of new forms would make the task more difficult, I do not think the Royal Horticultural Society should be blamed for making an effort to give the Daffodil world a standard for its shows at the earliest opportunity. The classification now issued is, in intention, complete as far as it goes, and it has not proved a difficult matter to alter the schedules of those societies which have adopted it. JOSEPH JACOB.

THE scholarly and dignified article from the Rev. G. H. Engleheart in your issue for the 20th ult. is a valuable contribution to the controversy raised by the publication of the classification of Daffodils by the Royal Horticultural Society. I am a comparative novice and cannot claim to speak on the matter with the experience he has gained in a quarter of a century's study of the flower, but I am quite content to take my time from him and to beat the big drum of discontent and revolt. The ways of the Royal Horticultural Society are, to the uninitiated, quaint and peculiar; so the fact that the special committee's report has not been referred to the Narcissus committee does not much surprise me. All the same, one would rather like to know definitely whether this special committee was given from the first what is, I think, called "power to act," or if the Narcissus committee (of which I was not then a member) agreed beforehand by resolution to accept their decisions? It would be waste of time to go over the points of objection Mr. Engleheart raises; most of us who study the Daffodil are agreed on them. One very distinct grievance of mine, however, as an admirer of Poeticus is that it has no class to itself, and thus, at a show like Birmingham, for instance, where Poeticus has always been a feature, it is to be mixed up with Parvis. in a class called "small cups," which, to use an expressive phrase of the Rev. G. P. Haydon's, is equivalent to showing hunters against thorough-breds. I am surprised that the Birmingham committee have adopted the classification, and one wonders if they thoroughly discussed it previous to doing so. In the case of the Tunbridge Wells show I confess I used what influence I possessed towards letting it slide for the present, and I cannot but think that the several other societies who have retained the old system have thereby shown common sense. F. HERBERT CHAPMAN.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

March 9. — Royal Horticultural Society. Exhibition of Flowers, Plants, &c., 1 p.m. to 6 p.m. Lecture at 3 p.m. by Mr. W. S. Murray on "Bulb-growing in Holland." Admission, 2s. 6d. Royal Horticultural Hall, Vincent Square, Westminster.

Our Special Spring Number.—Next week we shall publish a specially illustrated Spring Number, which will contain numerous articles by well-known experts on all phases of gardening. By this means we hope to encourage our readers still more in their efforts to make their gardens as beautiful and productive as possible. In addition to the illustrations from photographs, a coloured plate of a new Sweet Pea will be given, and the price, as usual, will be one penny.

National Horticultural Society of France.—At the recent elections of the above, our old contributor, Mr. Harman Payne, was elected a member of the floral committee of the Chrysanthemum section of the society.

French Horticultural Society of London.—At the annual dinner of the above society, held recently at the Café Royal, when Sir Albert K. Rollit, Officer of the Legion of Honour, presided, a telegram on behalf of the large company assembled was addressed to M. Fallières, President of the French Republic, offering the respectful salutations of the gathering. Sir Albert has recently received in reply a most cordial message from the Palais de l'Elysée, thanking him as chairman, Mr. G. Schneider, Mr. Harman Payne, and the members of the society for their kind message and salutations.

Gardeners' Royal Benevolent Institution.—The Liverpool Auxiliary held their seventh social gathering at the Bear's Paw on the 20th ult. E. Keaney, Esq., C.C., occupied the chair. The large hall was crowded and the programme was equal to its predecessors. The tables, as usual, were furnished with a choice display of cut flowers and plants, owing to the generous help of Messrs. R. P. Ker and Sons, C. A. Young, B. Webbs and Sons, Dickson's (Chester) and many others. The chairman gave a brief address, in which he noted that the parks committee hoped to remove their Botanic Gardens into the clearer atmosphere of Calderstones Park. Mr. R. G. Waterman ably carried out the secretarial duties.

Presentation to Mr. G. P. Berry. At the close of the series of lectures on horticulture given under the auspices of the Royal Horticultural Society of Perthshire during the winter by Mr. G. P. Berry of the Edinburgh and East of Scotland College of Agriculture, the lecturer was presented with a purse of sovereigns by the class as a token of their appreciation of his lectures. Mr. Rufus Pullar, hon. president of the society, took the chair and warmly eulogised the work done in the class, which numbered in all no fewer than 240. Mr. Berry, in a suitable reply, thanked the subscribers for their good feeling towards him.

The Royal Caledonian Horticultural Society.—The council of the Royal Caledonian Horticultural Society has issued its report for the past year, together with a list of members and a statement of accounts. In the same booklet is the schedule of prizes for the spring and autumn shows of the society. The spring show is to be held in the Waverley Market, Edinburgh, on April 7 and 8, and that in autumn, which is the Centenary show of the Royal Caledonian Society, is on September 8 and 9 in the same building. The prize-list for the spring show calls for no special reference, following, as it does, on much the same lines as the spring shows in former years. For the autumn show several Centenary prizes are offered. Thus, a Centenary cup is to be awarded for the most meritorious exhibit in the hardy and hot-house fruit classes, except the trophy class. A similar cup is also to be given for the most meritorious exhibit in the plant classes. An interesting competition will probably arise for the Centenary cup and 3 guineas, which, with a second prize of 5 guineas and a third of 3 guineas, are offered by the nursery trade in Edinburgh for thirty-six vases of cut flowers grown in and cut from the open, and to occupy a space 6 feet by 5 feet. A Centenary cup is also the first prize for the display of vegetables, eighteen varieties. These special prizes will not only help to mark an interesting period in the history of this old-established society, but should stimulate the competition at the autumn show.

A new foreman at Kew.—Mr. John Coutts, head-gardener, Killerton Park, Exeter, Devon, has been appointed to succeed Mr. Osborn in the decorative department at Kew. Mr. Coutts was a sub-foreman in the decorative department for some time previous to February, 1900, at which date he was appointed head-gardener to Sir T. Dyke Acland, Bart., at Killerton Park.

Broccoli and the weather.—As there are many reports of the failure of Broccoli through the frost, a good selection is always of importance, and I here append some varieties which have stood the ordeal well—Sutton's Late Queen, Satisfaction, Perfection, Snow White, Eastertide, June Monarch, Veitch's Model, Sutton's Christmas White and Sutton's Superb Early White. The two last mentioned produced excellent heads at Christmas, and all the other varieties mentioned look exceedingly well. Broccoli seed, in order that the plants may stand the frost well, should be sown thinly, and the seedlings transplanted so that they can grow sturdy and strong. By this means the plants gain points in stamina, and are therefore better able to withstand cold, frosty weather. Plants that are grown and taken from the seed-beds have not half the chance of those treated differently. Broccoli grown on the lines recommended are dwarf and sturdy; it is the long-stemmed plants that get frost-bitten. Broccoli require firm ground, and when planted should be made quite firm in the soil; but they also require a larger hole than the usual iron bar can make, especially when they have a mass of roots. Slipshod methods at planting time often bring food for reflection at the would-be cutting season.—W. A. COOK, *Leonardslee Gardens, Horsham.*

PRIZES FOR READERS. MARCH.

THE SIX MOST POPULAR ORCHIDS AND HOW TO GROW THEM.

A First Prize of FOUR GUINEAS,
A Second Prize of TWO GUINEAS,
A Third Prize of ONE GUINEA,
And a Fourth Prize of HALF-A-GUINEA
are offered for the best essays on the above subject.

The notes (restricted to 1,500 words) must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, W.C." The essays must reach this office not later than Wednesday, March 31. Both amateur and professional gardeners may compete, but it is hoped that those who contribute regularly to the pages of THE GARDEN will not do so. The name and address of the competitor must be written upon the MS., and not upon a separate piece of paper. The Editor accepts no responsibility for and cannot undertake to return the MSS. of unsuccessful competitors. The Editor's decision is final.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Broad Beans and black fly.—Seeing the article on "Broad Beans and their Culture" in THE GARDEN for January 30, I thought the following might be useful. It so happens that with me (unlike your correspondent) the Broad Bean has to be made the aristocrat of the kitchen garden, and I love to try by different means to prolong its season as much as possible. Last July I had a row nicely

set with Beans, when they became badly infested with black fly. I had the hose going one evening and took it to the Beans, and, using a good force of water with a finger on the mouth of the hose, thoroughly washed all the fly off. After a slight washing again the next morning the plants were perfectly clean, and no more black fly was seen. I won first prize in good company at an August show with Beans off that row. The variety was, what is in my experience the champion of all Broad Beans, Dickson's (Chester) Improved Longpod.—THOMAS DAVIES.

The colouring in the flowers of Hydrangea hortensis.—I read with much interest "A Note from British Columbia" (page 27) respecting the colouring of Hydrangea hortensis. I grow about thirty plants in 8-inch to 12-inch pots, which carry from fifteen to thirty blooms on each plant. When I first took charge of them about four years ago the blooms were all pink; the year following the smaller plants showed signs of coming blue, and all the plants have increased in colour each year (except two). This last year they were a pretty sight and were admired by all who saw them. I account for it by the fact that we use water from the moors, which contains iron in large quantities; the only stimulant they get is liquid manure from the farm, and about twice before they are in full bloom a sprinkling on the surface of the pots of an artificial manure.—F. R., *Baildon.*

Late-flowering Chrysanthemums.—I can endorse some of the remarks made by Mr. Harriss (page 55) relative to late-flowering Chrysanthemums, and particularly to the early closing of the season. The reason is no doubt due to the mild state of the winter. The white and yellow Thomsons are rightly claimed to be the best of those colours for late service; they have such splendid substance and consequent endurance. There are two stocks—A. J. Balfour and Nina Balfour—which to me appear identical; at least, they have proved to be so in my case. As a Christmas group they present strong claims for patronage, for their colours are so striking under natural or artificial light. Framfield Pink I have long since discarded because of the faults Mr. Harriss gives. Winter Cheer, said to be a sport from this variety, is a distinct acquisition of much brighter colour, and apparently of much greater vigour. I have not been able to reconcile it as having direct Framfield parentage; but whatever its origin, it is well remembered for its intensely bright colour tones and vigorous attitude. Another fine variety for December flowering is Dr. Englehardt, deep bright rose in colour. This, too, has a vigorous freedom in flower and growth, and seen when staged in groups creates a lasting impression. It is quite distinct from Nina Balfour, though flowering at the same time. Mrs. Barkley, like Framfield Pink, has deteriorated so much as a decorative that it is now discarded. Matthew Hodgson continues useful for January bloom, its bronzy coloured tints making it a welcome change from white, yellow and pink, which have had some predominance in late winter displays. Lord Hopetoun (crimson) and Wilfred Godfrey (bronze) are other useful winter varieties which, like Thomsons, give too few cuttings to become overstocked. Allman's Yellow and King of Plumes are deep-coloured varieties always welcome when changes in decorative schemes are needed. They are both good keepers. Sarah Owen (bronze) and Mrs. Judson (white) are incurveds of strictly decorative value, late; and the rich butter-yellow Romance gives handsome sprays that last long in perfection. Western King and its primrose sport, H. J. Gillingham, are good December sorts. Single varieties, which are becoming so prominent in present-day selections, give some distinctly useful late blooms. Not much information is given in catalogue descriptions bearing on late service, but I have found many plants raised from seed give December flowers. The time of stopping and the choice of buds, when a system of disbudding is practised, materially alter their season; but when better known there will be an accession of useful varieties available for mid-winter and later. Sorts that will extend the season into February will be welcomed, but the season 1908-9 has not favoured much late flowers of any section, single, incurved or Japanese. — W. STRUGNELL, *Rood Ashton Gardens.*

—— I was much interested in Mr. Harriss's note on late-flowering Chrysanthemums, and, like him, have found that Framfield Pink and also Mlle. L. Charvet have deteriorated to such an extent as not to be worth growing. Winter Cheer, a deep pink sport from Framfield Pink, is far superior to its parent. It is nearly the same shade of colour as A. J. Balfour, but does far better. With me the latter is so badly diseased as to be scarcely worth growing. Good as Mrs. J. Thompson is, with me Heston White is better. Clarke's Golden Thompson is a glistening pale yellow, but not deep enough for artificial light, and both Nagoya and Allman's Yellow are superior to it. Bronze Mrs. Thompson is a straw colour. Frank Wilcox has more red in it than Tuxedo, but both are good. The former is grown largely in this neighbourhood for the Christmas

KENTIA FORSTERIANA. (*See page 112.*)

trade. L. Canning is still one of the best, if not *the* best, white for dwarf pot plants for vases; but it is a variety for only certain situations, and no doubt does better 300 feet above sea-level (as here) than in low-lying districts. Gem of Earlswood is a very pretty little Anemone Pompon, the centre citron and the outer petals blush pink. Treasure is a small-flowered deep yellow single. All the above varieties were at their best here at Christmas, and Winter Cheer and Heston White were good till the middle of January.—J. R., *Enfield.*

"Herbaceous" flowers.—The question raised by Mr. Shanks respecting the proper description of plants or flowers which are qualified for exhibition in competitions when simply described as "herbaceous" is interesting, and one that it is always advisable in schedules to clearly explain in a footnote, as to so many diverse persons such terms as "herbaceous" may have a different interpretation. If the class indicated is to comprise those which are hardy in the metropolitan zone, they should be regarded as hardy all over the kingdom. This is the only way to overcome the difficulty. Then as to natures of plants meant when the term "herbaceous" is used, it should be in the commonly received sense that it applies to plants of which Phloxes, Erigerons, Michaelmas Daisies and perennial Sunflowers are good examples, these having perennial rootstocks and annual stem-growths which die down in the autumn. But if bulbous plants, such as Lilies, Galtonias, Montbretias and others similar are to be qualified, the footnote should say so. Schedules should not refer the competitor to the Royal Horticultural Society's Rules of Judging unless the classes are those of the Royal Horticultural Society. Drafters of schedules cannot be too clear in these matters, and are well advised to add starred footnotes in all cases to classes that need authoritative elucidation. The botanical construction of the term "herbaceous" is that it applies to all plants that have soft stems, even to Carnations, Pinks, Sweet Williams or Pansies, because their stems, unlike those of the Rose or shrubs or trees, are not hard or woody. This may be a proper or scientific use of the term, but it is not that generally accepted in gardens. I like the wording of the Shrewsbury schedule very much. This reads, "Bunches of hardy flowers, annuals and shrubs excluded." In such a class Roses and Carnations as well as bulbous flowers come in. It is well in encouraging hardy flowers to open the classes for them as wide as possible.—D. K.

ACETYLENE GAS GENERATOR REFUSE

FOR GARDEN CROPS.

[*In answer to several Correspondents.*]

THE question of the usefulness or otherwise in gardens of the refuse from the acetylene generator plants is very frequently raised. May this refuse be placed upon the land without injury to crops and with beneficial effect upon the soil? is mostly asked. Calcium carbide is made by causing lime and carbon to combine together in an electric furnace, so that a compound having the chemical formula CaC_2 is formed. When water is brought into contact with this substance, certain chemical reactions immediately take place, with the result that acetylene gas is generated and a white substance remains mixed and partly dissolved in water. This is shown by the following chemical equation:

$$CaC_2 + 2H_2O = C_2H_2 + Ca(OH)_2$$

(Calcium carbide) (water) (acetylene) (slaked lime)

The white substance is slaked lime, and if it were not for the presence of some impurities, derived mostly from the form of carbon used in the manufacture of the carbide (that have, of course, been ignored in the equation), this slaked lime would not differ in the least from that obtained when fresh burnt lime is slaked with water.

On account of the presence of some impurities in the carbide, however, the refuse is likely to contain certain compounds of sulphur and lime (sulphides), and occasionally some phosphide of lime, a compound of phosphorus and lime. Both of these compounds are injurious to plant-life, but the latter is not likely to be present in sufficient quantities to do any appreciable damage, and the former soon alter in composition in the soil and become innocuous. Thus the refuse may be used with advantage upon soils, though it should first be exposed to the action of the air for a time before it is allowed to come in contact with roots. It may be spread on the soil in the autumn at the rate of about half a bushel to the square rod, as evenly as possible, and allowed to lie for a time before it is forked in. Used in this way it will have the same beneficial effects upon the soil as a dressing of slaked lime applied in the same way, counteracting sourness of the soil and mitigating the evils arising therefrom, and, in the case of clay soils, causing the minute particles of clay to coagulate and therefore making the pores in the soil larger and the soil itself easier to work, more open to the air and, as a result, more easily warmed by the sun in the spring. SCIENTIST.

THE GREENHOUSE.

PALMS FOR MARKET.

ALMOST the only Palm brought into Covent Garden Market in my young days was the large-growing Fan Palm (Latania borbonica), and even this was met with in limited numbers. Time has, however, changed all this, and Palms are now, in some large establishments, grown literally by the acre, the demand for them being so great. What is more, the Latania now occupies a very subordinate position, the pride of place undoubtedly belonging to the Kentias, which, from plants in 2½-inch pots to noble specimens 12 feet high, all find a ready sale. It would be quite impossible to even hazard a guess as to the numbers that are disposed of in Covent Garden alone, grown in 5-inch, or, as they are termed, forty-eight-sized pots. Such an one as is illustrated on page 111 may realise anything from 1s. 6d. to 2s. 6d., which, considering all incidental expenses, does not seem to leave a large margin for profit. There are two kinds generally grown, namely, Kentia forsteriana, which is the one illustrated, and K. belmoreana, characterised by more numerous leaflets and a rather dwarfer habit. Intermediate forms, however, often crop up in a batch of seedlings. Although they are generally grown and referred to under the name of Kentias, these Palms are by botanists placed in the genus Howea. This name is derived from the fact that they are both natives of Lord Howe's Island, off the east coast of Australia. It was in the early seventies that they were first introduced into cultivation, but some years elapsed before they became popular.

At the present time immense importations of seeds reach this country, and they are, as a rule, bought up very quickly and sown without delay, for, in common with Palm seeds in general, they do not retain their vitality long when in a dry state. The plants as met with even on the costermongers' barrows in the streets of London are admirably suited for dropping into ornamental pots for various decorative purposes. Most of these Kentias are grown in comparatively small pots, and this is an item in their culture in which the amateur is very liable to err, for the plant is often shifted into a pot much too large, and it consequently soon falls into ill-health and ultimately dies. It is far better in most cases to allow the plant to remain in the same pot and, if necessary, give it an occasional stimulant in the shape of some of the highly concentrated manures now so much in vogue. When thoroughly established the stout roots are apt to coil around the bottom of the pot and, by slightly lifting the ball of earth, allow the water to escape between it and the pot. The result will be a gradual starving of the plant. If this is feared, a good way to water the Palm is to stand it in a pail of water and allow it to remain therein for half-an-hour or thereabouts. Then take it out and let it drain before placing it in the saucer or other receptacle. On no account must water be allowed to stand in the saucer, as this causes the soil to turn sour and sets up decay of the roots. The plant should always be shaded from the direct rays of the sun, and the foliage must be occasionally sponged. Where Kentias are grown in quantity, the object is to obtain saleable plants in as short a time as possible, and so they are kept in a warm, moisture-laden atmosphere. This makes them more susceptible to colds and draughts than plants grown under cooler conditions would be. In order to obviate this as far as possible, newly purchased plants should have a little extra care and attention bestowed upon them. H. P.

A NEW ORCHID (ODONTIODA CHELSIENSIS).

ODONTIODA CHELSIENSIS.

SEVERAL beautiful additions have been made to the Odontiodas during recent years, and one of the most beautiful forms the subject of this note. It was raised by Messrs. William Bull and Sons, King's Road, Chelsea, London, S.W., and was shown by them before the Manchester and North of England Orchid Society on January 7 of this year, when it received an award of merit. It is the result of crossing Cochlioda vulcanica grandiflora and Odontoglossum crispum, the flowers being a deep rosy carmine, shaded with violet purple. The single flower in the illustration is shown natural size.

THE TREATMENT OF FORCED SHRUBS.

DURING early spring we depend largely upon forced shrubs to keep up the floral display in our greenhouses and conservatories, and without a judicious selection of hardy shrubs gradually brought into flower, and thus anticipating their usual season of blooming when out of doors, there would be a considerable sameness at this period among the floral occupants of such structures.

In revising the shrubs suitable for this treatment, one cannot fail to be struck with our great indebtedness to the vast Rose family, as, even omitting Roses themselves, many of their immediate relatives are among the most useful shrubs we have for this purpose. The purple-leaved Plum, known generally as Prunus Pissardii, though from a foliage point of view frequently overdone in gardens, has the sombre-tinted bark of the branches (on the ends of which the bursting leaf-buds are showing just a suspicion of their reddish foliage) lit up with myriads of its pretty little blossoms, in colour white with a pinkish centre. This is most effective in the shape of large specimens.

After this may be named the small-growing Prunus sinensis, whose slender, upright shoots are wreathed with pretty double blossoms, in one form pure white and in the other slightly tinged with pink. This is grown in immense numbers by the Dutch nurserymen, who supply this country with the greater part of our forcing shrubs. Surely many of them could be grown here and thus keep the money at home. An equal favourite with the species just named is Prunus triloba, with semi-double blossoms of a rich rose colour. It is remarkably showy when at its best, and the readiness with which it can be forced renders it, like Prunus sinensis, a universal favourite.

As the genus Prunus is not now confined to the Plums, but also embraces the Cherries, Almonds and Peaches, there are others especially desirable for forcing. Prominent among them are the Japanese Cherries (Prunus Pseudo-Cerasus), represented by several varieties, among which J. H. Veitch, with its large, semi-double, blush-tinted flowers and bronzy leaves, stands out as one of the best. That rich-coloured variety of the Peach known as magnifica, from the brightness of its colouring, asserts itself in any group.

The above by no means exhaust the list of Rosaceous shrubs of great value for forcing, as we have the Spiræas, especially S. arguta, S. confusa, S. prunifolia flore-pleno and S. Thunbergii, Cydonia or Pyrus japonica in its several forms, Pyrus floribunda and Thorns of different sorts, but more particularly that rich-coloured form known as Paul's Double Scarlet.

Rhododendrons, now that the Azaleas are included therewith, form quite a host in themselves. Of the evergreen sorts, many of the early flowering varieties may be gently forced without difficulty, while such as R. præcox and R. Early Gem must on no account be passed over in any selection of the very best. The deciduous types, to which the name of Azalea still holds in gardens, contain in Azalea mollis one of the most popular of all shrubs for forcing. The warm terra-cotta tint of the blossoms of many of these is not only uncommon among shrubs, but is very effective by artificial light. Some take exception to Azalea mollis on account of its lumpiness, and to these the lighter and taller-growing forms known as Ghent Azaleas will commend themselves.

Lilacs have long been very popular for forcing, and they so readily lend themselves to this treatment that they are likely to remain favourites for a very long time. The double varieties do not flower so freely when small, hence they are scarcely so generally employed for forcing as the single sorts. Far and away the favourite for this purpose is the pure white Marie Legraye, which blooms freely when small.

It is not so very many years ago that Magnolias were rarely forced, but now they are largely treated in this way. The massive flowers render them totally distinct from any other forced shrubs; such as M. conspicua, M. Lennei and M. soulangeana among the larger forms, with the small-growing M. stellata, are the best for the purpose.

Almost from its introduction the pretty little Deutzia gracilis proved its adaptability for forcing, and one of the newer hybrids are equally desirable. Prominent among them is D. Lemoinei, a larger grower than D. gracilis. This note on shrubs for forcing might be much extended; but having already reached the limit of a reasonable article, I will just give the names of a few others that must not be omitted from any list, however select: Andromeda floribunda, A. japonica, Forsythia suspensa, Staphylea colchica, Viburnum Opulus sterile, V. plicatum and Xanthoceras sorbifolia. H. P.

THE FRUIT GARDEN.

FRUIT NOTES.

GRAFTING.—There is no doubt that this is one of the most important operations connected with the culture of our principal fruits, for it is by its aid that hundreds of thousands of trees are increased each season. With this phase of grafting, however, the amateur has little to do other than to experiment now and again, his grafting, as a rule, being restricted to the renovation of trees which either do not crop or produce fruits of no value. This aspect of the matter is full of interest, as it is a work demanding skill and care if gratifying results are to accrue. Every amateur gardener should try his hand at the insertion of scions, and he will soon find himself able to carry it out successfully on the Apples and Pears in the garden.

Time of Insertion.—The grafting of fruit trees is always carried out in the spring, and the correct time is just as the sap is rising freely in the stocks, but the scions themselves must still be in a perfectly dormant state. Old or useless trees that are to be operated upon should have their main branches cut back to within 1 foot or so of the bole or trunk, and it is into these stumps that the grafts will be inserted. It is almost always excellent practice, where old and probably somewhat debilitated stocks are being worked, to secure scions from vigorous-growing varieties, such as in Apple Bramley's Seedling and in Pear Pitmaston Duchess, for these appear to have the power to impart some of their vigour to the stocks, and thus splendid trees are secured in a comparatively short time. To keep the grafts at rest, they should have been stored in a very cool position, such as beneath a wall or a hedge with a northern aspect. At the moment of insertion each should have four healthy growth-buds lying closely down to the stem.

Method of Insertion.—The actual insertion of the grafts has been illustrated in The Garden on more than one occasion, and it will therefore suffice to briefly describe the process. With a chisel or sharp knife a wedge-shaped piece is cut out of the stump, and the scion is then taken in hand and cut so that the wedge left at the base corresponds exactly with that on the stock; it is then placed in position. In doing this, the fact must be borne in mind that a union of the inner barks is imperative on at least one side and preferably on both, or the operation will undoubtedly fail. To make the outer barks join up may be desirable; but it is the inner ones that effect the results. There are slight variations of this method of inserting the scions; but whichever one may be chosen for adoption, the secret of success will lie in ensuring the junction of the inner barks on one side at least.

Tying and Enclosing.—When young stocks are being worked in fruit nurseries only one scion is inserted in each, but when one is dealing with old trees four or more may be put to each stump, and when they are in it is necessary to securely tie with any convenient material. This done, the final detail must have attention, and this is to so enclose the union that it is impossible for air to gain admission, otherwise the operator will have to record a failure instead of a success. Where only a few stocks are being dealt with, grafting wax should always be used, and this can be purchased in tins practically ready for immediate use; but it is apt to run a trifle expensive, and a wax should either be made up at home or clay should be employed. The latter is the cheaper, but there is an ever-present liability that it will crack and thus air be able to gain admission; if it is used the grower should make it a rule to inspect the work frequently, and if cracks are seen to at once fill them up again. A good clay can be prepared with loam, very short manure and water, and these ingredients must be mixed until they become a beautifully plastic mass which can be worked and moulded into any desired shape. This is worked on with the hands, whereas if wax is used it is painted on in a semi-liquid condition with a brush, and it has the merit of never cracking, provided that it is properly prepared according to the directions of the vendors and applied strictly according to their instructions.

Fruit-grower.

SWEET PEA WHITE WAVED.

THE FLOWER GARDEN.

SWEET PEA WHITE WAVED.

THIS is a giant waved variety which produces its lovely pure white flowers in abundance and continues flowering until late in the season. It was distributed in this country last year by Mr. Henry Eckford of Wem, and proved to be one of the prettiest whites in existence. Last year I grew it with the beautiful scarlet variety, Queen Alexandra, and the contrast, though vivid, was of a very pleasing character. As a decorative and exhibition variety, White Waved deserves to be grown in all good collections. H.

METHODS OF GROWING SWEET PEAS FOR GARDEN DECORATION.

(*Second Prize Essay.*)

In considering the growing of Sweet Peas from the point of view of garden decoration only, one should premise that in the preparation of the soil, whether in the open ground or in pots, the sowing of seed, &c., the treatment accorded should be, to all intents and purposes, as if the blooms were intended for exhibition. Alas! far too often is the term "garden decoration" a synonym and an excuse for neglect and general carelessness. But apart altogether from the actual well-doing of the plants, there remains the even more important duty of their correct placing in the general colour scheme, so that the beauty of the flowers may be enjoyed to the fullest extent. Although, unfortunately, it is not given to all of us to have just the surroundings we should choose for our plants, yet perhaps a few hints may be useful, if only to indicate in general terms one or two of the more important points which must be borne in mind in considering such a question.

The chief note in all such should be restfulness and restraint, and there are but few gardens in which, by a little forethought, some quite simple garden picture may not be realised and one's artistic eye satisfied. To that end the mixed seed packet should be rigorously eschewed, experience teaching us that while so many hundred plants may be quite useful as an example of kaleidoscopic effect, they are not necessarily decorative, and that far more satisfactory results are obtained by the use of but one colour, or two colours at most, in any single clump or short row, and that hedges also should be planted in a well-ordered colour sequence.

One dwells with pleasure on the delightfully satisfying effect of one such picture realised last summer by the planting in grass of a clump of Mrs. Hardcastle Sykes (soft pink) with a background of old lichen-covered fruit trees to give just the proper amount of relief. An equally pretty arrangement would be a combination of a 3-feet-wide border of Giant White Stocks surrounding an isolated clump of Queen Alexandra (scarlet), or a planting of Dorothy Eckford (white) among blue Delphiniums, with a few pieces of Aster acris (soft blue) in front to hide the somewhat rusty appearance of the Delphiniums when dying down.

Other good garden pictures would result from a clump of Lady Grisel Hamilton (lavender) as a centre-piece to a bed of lemon-coloured Iceland

Poppies, a short row of Mrs. Walter Wright (mauve) with Dorothy Eckford, while a planting of Dora Breadmore (buff) amid pale pink double Hollyhocks, with a foreground of yellow Coreopsis, would also be successful. Such combinations can be multiplied almost indefinitely, and as one's experience grows and one's artistic sense develops it becomes a continuous delight to plan out colour schemes more and more ambitious, but which, in every example, must have the fundamental rule of harmony as its base.

An objection often urged against the use of Sweet Peas in garden decoration is that some considerable time must elapse before the haum is sufficiently grown to cover the sticks, and, in consequence, until that period arrives the immediate neighbourhood is rendered more or less unsightly. This may be largely, if not entirely, obviated by growing the Peas in 9-inch to 10-inch pots or tubs well away from the general view, and then, when growth is sufficiently forward, transferring the pots bodily into their allotted positions. One cannot too strongly condemn the slipshod way in which the generality of Sweet Peas are staked, the sticks often overlapping the plants in most obtrusive fashion. If from the outset the plants are trained to climb up outside the sticks, and when full growth is attained every piece not covered cut away, the health of the plants, owing to their being kept more open, as well as their general appearance, will be vastly improved.

In situations quite narrow and ribbon-like, unless a continuous Sweet Pea walk is required, it is wiser to rely more on the dwarf-growing and easily managed Cupid Peas, which, coming into bloom earlier than the taller varieties, can be made, by successive pot sowings, to do duty over a lengthy period. Here, again, one or two pretty combinations present themselves to the mind, such as a few pots of white Cupid Sweet Peas springing from a setting of Nigella Miss Jekyll, or a mixture of Cupid Countess of Radnor (lavender) and Primrose Cupid, or, again, some plants of Firefly (scarlet) half veiled in sprays of the Cloud Grass (Agrostis nebulosa). Note that seeds of Cupid varieties, which only grow to about 12 inches in height, should be set comparatively close together.

The importance of planting always with a continuous eye to the general colour arrangement cannot be better exemplified than in a Sweet Pea hedge designed, maybe, as a division between the kitchen and the flower garden, or as a shelter to the rosarium, or, again, as a screen to some out-of-the-way corner. Beginning with stretches, say, 3 feet to 4 feet, of dark and lighter blue, there should follow successive lengths of white, pale yellow and pale pink, the colour then toning up through rose to scarlet and crimson, dying away again in inverse order through orange, yellow, pale pink, buff and white, finishing with lavender and purple. If, further, it be arranged that no sharp division between the shades be noticeable, rather that they should gently merge one into the other, such a hedge, whether viewed either from a distance or examined at close quarters, will be a continual delight, each colour blending with its neighbour into one harmonious whole, and with none of the hard and violent contrasts which the use of mixed packets of seed must of necessity bring.

The growing of the tall varieties in tubs, &c., for the decoration of terraces or house walls is not suggested for general adoption, as their tendency is to unduly dwarf their surroundings, the Cupid varieties being for this reason much more suitable. If, however, economy of space renders their use imperative, every possible stretch of greenery should be utilised as a background, in the same way as the dark leaves of trees and shrubs must be pressed into service in the garden proper. If it be possible to view such from a little above their level, so much the better, as the full beauty of the plants, flowering as they do more freely at the top, can be the more easily appreciated. Due care must also be taken to ensure that the tubs be painted some good quiet colour that will not clash with the flowers. Almost anything will do rather than the harsh strong green which one so often sees used on Dahlia stakes, &c., but quite a soft shade of green can be made up of one part black, two parts light chrome and four parts white lead, a recipe copied some years ago from THE GARDEN.

Now for a selection of suitable varieties, free flowering and strong growing. For a hedge: Blue, Lord Nelson; light blue, Miss Philbrick; white, Dorothy Eckford; pale yellow, Mrs. Collier: pale pink, Mrs. Hardcastle Sykes; pink, Countess Spencer; salmon pink, Miss Willmott; rose, Marjorie Willis; scarlet, Queen Alexandra; crimson, King Edward VII.; orange, Helen Lewis; pink, Bolton's Pink; pale pink, Queen of Spain; buff, Dora Breadmore; creamy pink, Constance Oliver; white, Nora Unwin; white, edged lilac, Phenomenal; lavender, Lady Grisel Hamilton; and purple, A. J. Cook. These with Mrs. Walter Wright (mauve), Helen Pierce (mottled blue), Jeannie Gordon (rose and cream), America (white, striped crimson) and Black Knight (maroon) make up a list of twenty-four reliable sorts, which, with the Cupids given below, will be found sufficient for all the ordinary requirements of garden decoration. One regrets the exclusion of two such beautiful sorts as Henry Eckford (orange) and Audrey Crier (richest pink), but the former's poor growth and the latter's sportiveness render them both unsuitable for such a list.

Cupid varieties: Countess of Radnor, lavender; Firefly, scarlet; Royalty, pink; Captain of the Blues, violet-purple; Crimson and White.

W. BENTLEY.

Field End, Eastcote, Middlesex.

HYBRID TEA ROSE MARQUISE DE SINETY.

DAFFODILS IN MASSES.

DAFFODILS never look more beautiful than when seen growing in broad masses. I have a long border in which about 5,000 bulbs were planted two years ago. Bulbs of the Blue Grape Hyacinth (Muscari botryoides) were afterwards set out in irregular patches over the ground, 2,000 being used. A haze of blue was thus seen beneath the Daffodils and the effect was truly exquisite. The photograph reproduced on page 115, taken only a week after the severe snowstorm we experienced last April, when the buds and leaves were weighted to the ground, shows the border in full bloom.

ED. TESCHEMACHER.

THE ROSE GARDEN

ROSE MARQUISE DE SINETY.

FROM a colour point of view this superb Rose is the greatest triumph among Hybrid Teas that we have up to the present time. I consider it the *chef d'œuvre* of that eminently successful raiser, M. Pernet-Ducher. That he has blended Soleil d'Or or one of its offspring with the Hybrid Tea seems to be quite evident, although there is no trace of Briar-like growth as there is in the Lyon Rose. Marquise de Sinety is just like a giant Ma Capucine in the colouring of its quarter and half open flowers. Doubtless many readers of THE GARDEN have grown Ma Capucine, and they know what a really remarkable colour is to be found in its buds. Just imagine this colour in a flower the size of the left-hand example of the illustration, and one can have a fair idea of the beauty of this exquisite Rose. The raiser describes the colour as ochre carmine or Roman ochre, shaded with bright rosy scarlet; but how inadequate all black and white description is of a flower of this type! Even with the aid of the Royal Horticultural Society's colour chart I doubt if one could faithfully describe it.

I advise all who do not possess this Rose to obtain it at once, and plant a whole bed of it if possible. It is of good habit, stiff and sturdy shoots being produced, but not exuberantly vigorous. I never expect to find bushes taller than 2 feet, because it is a Rose that must be well pruned to keep up the quality of bloom and colouring. The thick, leathery leaves are of a reddish tinge, giving the plant a most unique appearance.

Marquise de Sinety has one special failing, namely, its expanded flowers pale considerably,

especially in bright sunshine. These go off to a sort of rich buff colour. The flowers are large, cup shaped and moderately double, but I wish the colour of the quarter-open flowers was maintained in the expanded blooms; then, indeed, we should have a rich bedding variety. It cannot be an exhibition Rose, but must be looked upon as a garden variety to be grown as a bush. I do not commend it for a standard, although doubtless with three or four years' growth it would make a respectable head by skilful pruning. As a dwarf standard it would be a great success, to be used as dot plants over a bed of dwarfs; but to obtain these one should bud some stocks at home, for I fear it will be some time before it is procurable in dwarf standard form. As a pot Rose under cool treatment Marquise de Sinety will be a useful addition to the stiff-stemmed Roses, and if a bush or two could be planted out under glass they would doubtless grow into very fine specimens. There is a sweet fragrance in its blooms, which it probably inherits from that deliciously perfumed Rose Soleil d'Or.

I used to think we were receiving too many of the apricot ochre and orange-tinted Roses; but there seems to be such a distinctness when one has grown them for a season or two that I have been impressed with their individuality. There is a variety sent out in 1903 named M. Paul Ledé, which even now is not so much grown as its merits deserve that it should be. Here we find a marvellous ochre red tint which never fails to catch the eye. This Rose could well be used to plant with Marquise de Sinety; the latter was introduced in 1906.

Another variety of the same raiser's which I believe will become very popular is Mrs. A. R. Waddell. It is a reddish salmon, but so far I have only seen it under glass. It struck me then as being most distinct in its colouring. P.

THE CLASSIFICATION OF PERPETUAL-FLOWERING ROSES.

To all who have the welfare of the National Rose Society at heart—and they now number thousands—the articles by Mr. Pemberton and Mr. H. E. Molyneux in your issues of January 9 and February 13 of this year should be of considerable interest. The society comes before the public most prominently in its exhibitions, and if it is to improve its position, it is of the utmost importance that it should not only advance, but advance on the right lines.

Among amateurs, at all events, the most numerous class of exhibitors will consist, for some time to come, of those who show exhibition Roses in boxes. No other method of exhibiting Roses has yet been devised which presents equal facilities for arrangement and carriage. For exhibitors of this class the question should really present few difficulties. They have simply to follow the classification adopted from time to time by the committee of the society and issued in their official catalogue and publications; while in the few cases where any Rose does not appear in these lists, the raiser's description should be followed, as in practice is now done.

This official classification is doubtless arbitrary, and must remain so. Probably the present classification would stand revision. We are told that a new official catalogue will have to be issued in the near future, and this will afford an opportunity of recasting the present classification. My own opinion is that, when this work is undertaken, the committee which has the work in hand might properly discard all attempts to trace the parentage of the varieties, and confine its attention exclusively to the character of the Rose as an exhibition flower. However this may be, the classification is selected by the society, and must be followed at the risk of disqualification.

Mr. Molyneux suggests that revision of the present schedules should take place in the direction of narrowing the existing classes. As far as exhibition Roses are concerned I am entirely with him. At the present day the exhibition boxes in the general sections are dominated by the Hybrid Tea. In box after box we see the proportion of Hybrid Perpetuals to the number of blooms in the box scarcely greater than that of the Teas. If this tendency increases, we may find before long that, in order to see a good Hybrid Perpetual, we shall have to wait for the Scotchmen in the autumn. We now have a general section and a section for Teas. Why should we not try the experiment of a few classes for Hybrid Perpetuals?

But leaving the exhibitors of Roses in boxes, there are also exhibitors of another gradually increasing class—those who exhibit decorative or garden Roses. I cannot help thinking that in writing their articles on this subject Mr. Pemberton had, and Mr. Molyneux had not, these exhibitors in mind. At all events, in dealing with these classes I part company from Mr. Molyneux. What we want here is not restriction, but expansion.

The rule hitherto obtaining, under which a Rose is admissible in the decorative classes, is that it must not be found in the exhibition lists, while in the classes for garden Roses all Hybrid Perpetuals and Hybrid Teas are excluded, except singles. Both these rules are unsatisfactory.

There are some Roses which, though capable of being brought up to exhibition size, attain their greatest perfection, at least in my opinion, both in the garden and on the bench, when the flowers are smaller and more blooms are allowed on the plant than can be the case where flowers of exhibition size are required. Antoine Rivoire is such a Rose. It is eminently adapted for showing as a decorative Rose, but is excluded because it has been absorbed into the exhibition lists. This is of little advantage to anyone. The Rose finds no place in Mr. Mawley's list of sixty-seven show Roses, so can be but seldom seen in a box; yet it cannot be shown in a decorative class. Another example from among the Teas is Mme. Jean Dupuis, which can be grown as a beautiful decorative Rose. Again, in the garden Roses we cannot show the Tea Rambler. This Rose is classed as a Hybrid Tea, so it is excluded from the garden varieties, though it makes a beautiful companion to W. A. Richardson, Crimson Rambler, Aimée Vibert and the like in classes where we look for beauty of colour, freshness and tasteful arrangement rather than perfection of form in the individual flower.

From this point of view I think the class introduced for the first time into last year's schedule for Roses of any variety arranged to show the foliage, habit of growth and decorative value of the Rose displayed, should prove a step in the right direction, and when better known it should become popular. It will be noticed that I have drawn a distinction between decorative and garden Roses. In my opinion there should be such a distinction. I should like to see the decorative classes dissected to embrace exhibits where beauty of form, freshness and taste in arrangement were the principal points for consideration with the judges, mere size of individual blooms, except where wanted for a particular effect, being treated rather as a defect than a merit; while in the garden Roses perfection of form should not be looked for, and should be replaced by qualities such as lightness and brilliance of colour. In both cases I should like to see a large discretion as to varieties left with the exhibitor. If necessary special lists for these classes might be settled. My point is that a Rose suitable for these classes should not be barred merely because it is also capable of being shown as an exhibition variety. In distinguishing these classes (decorative and garden Roses) I think I should find support from Mr. Pemberton, but I feel a difficulty in admitting separate classes for bedding Roses in the way he suggests. We have to remember that in framing a schedule we are legislating for the show bench and not (save indirectly) for the garden, and however valuable a class for bedding Roses may be in the garden, these Roses may properly find a place on the show bench either as exhibition Roses proper or among decorative or garden varieties. I would, however, suggest this distinction: that in some classes the attention of the judges should be directed to the exhibit as a whole, while in others the varieties should be directed to be shown in separate vases or stands and the judges requested to treat each vase or stand as a separate unit.

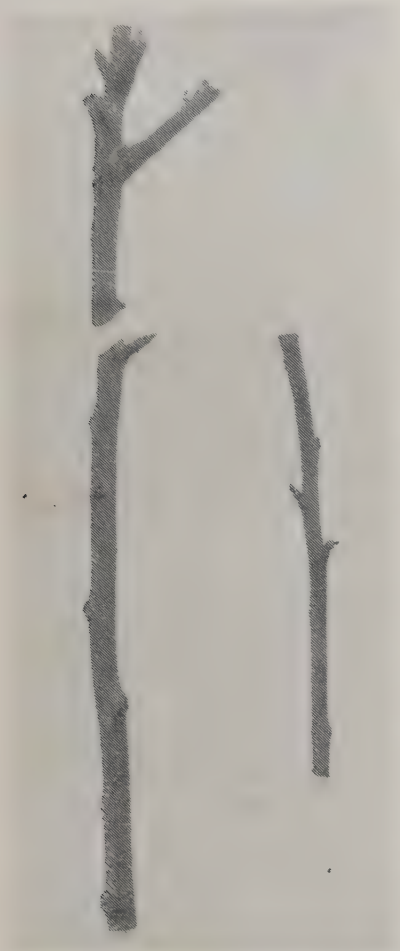
Potter's Bar. H. R. Darlington.

DAFFODILS MASSED IN MR. TESCHEMACHER'S GARDEN, WITH BLUE MUSCARI AS A CARPET.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Climbing plants that are growing on walls will probably need attention in the way of pruning and nailing, although in many instances this work will doubtless have been done during the winter months. The Winter Jasmine (Jasminum nudiflorum) has now finished flowering, and the growths may be shortened back or thinned out as desired. All climbing plants or those trained as such, and which naturally flower in the spring months, should not be pruned until after the flowers have faded; but those that flower in late summer and autumn may be dealt with now. It occasionally happens that a climber planted in an angle formed by two walls fails to get any appreciable amount of rain, even during the winter months; consequently the soil will need a thorough soaking with water. This may not seem possible at this season, but a day or two ago, when dealing with a Japanese Honeysuckle, I found the soil, with the exception of about 2 inches on the surface, was as dry as dust. Sweet Peas, if not already sown, should be got in without delay. Instructions for their sowing have so often been given in THE GARDEN that it is not necessary to do more than emphasise a few salient points here. Sow thinly and thin early; damp the seeds and roll them in red lead to prevent mice stealing them; string black cotton over the rows or clumps as soon as sowing is done, else birds will nip off the young shoots almost before they are seen by the human eye; and sow 2 inches deep, as Sweet Peas do best when sown thus deeply according to their size.



1.—THE ILLUSTRATION ON THE LEFT REPRESENTS THE "STOCK" AND THAT ON THE RIGHT THE "SCION." THE SCION IS THE GROWTH THAT IS GRAFTED ON THE STOCK.

Vegetable Garden.—Where a warm border at the foot of a south wall is available for them, a planting of an early Potato may be made therein. Choose a short-topped variety and plant in rows 15 inches to 18 inches apart and place the sets 10 inches asunder in the rows. A further sowing of Broad Beans, to follow the earliest crop, should be made, observing the directions given in a previous calendar. Herbs, such as Mint, Thyme and Sage, may now be propagated by division. The two first named easily lend themselves to this method of increase, and young plants always give the best returns. In the case of Thyme choose the vigorous outside portions, taking care that each has some roots. With Mint select the strongest white roots for replanting. Sage does not need dividing so frequently, and usually when increase is desired a small branch may be detached with a root or two adhering, and which will be suitable for planting. Where a large number of plants are required, it is best to take cuttings made from the young shoots, planting these in sandy soil in a cold or slightly heated frame. A sowing of Parsley may be made now with a good prospect of success.

Greenhouse and Frames.—Arum Lilies will now be pushing up their flowers freely, and consequently will need plenty of feeding and moisture. Weak liquid manure may be given twice a week, and on no account must the soil be allowed to become at all dry. Arums are practically bog plants during their growing and flowering season, and this should be firmly borne in mind. Hippeastrums or Amaryllis are other bulbous plants that will be pushing flowers now, and these also are benefited by frequent waterings with weak liquid manure. Rooted Chrysanthemum cuttings must be given plenty of air, kept quite cool and near the glass. Plants in frames generally will need more air, and this should be afforded whenever the outside conditions will permit of it being given. Keep young seedlings near the glass and, above all, be very careful with the watering, otherwise much damage in the form of damping off will occur.

Fruit Garden.—All pruning of Gooseberries and Currants must be finished off without delay, as buds will now be swelling and, in the case of early Gooseberries in warm situations, even bursting. Bullfinches will be troublesome on Gooseberries and Plums, and I have not yet found an effective remedy except the drastic one of shooting the pests, which I very much regret, as they are one of the most beautiful of all our wild birds. However, crops must be protected in some way.

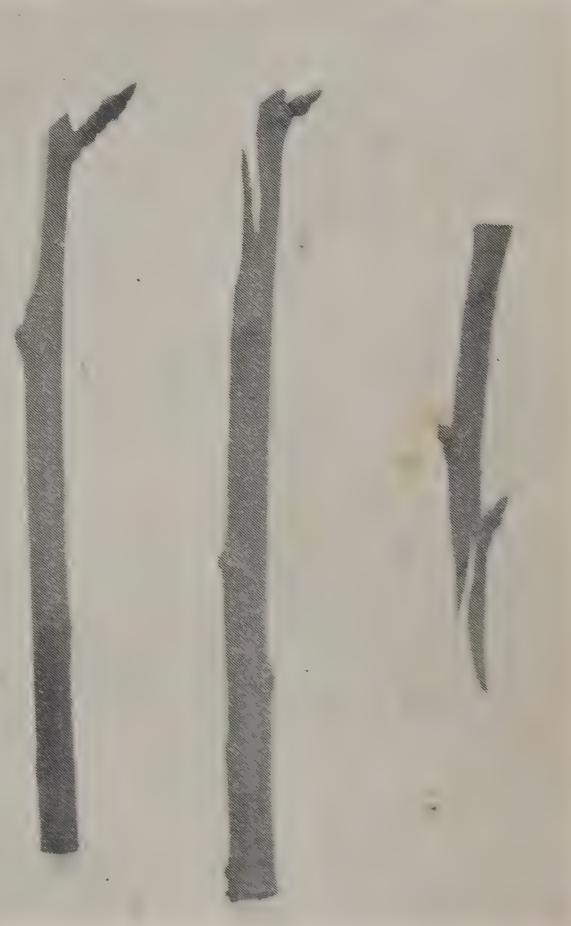
Window and Room Plants.—These will need rather more water now than hitherto, but care must still be exercised, as there is always a tendency to over rather than to under water these plants. All foliage must be kept clean by sponging, or, in the case of such as Araucaria excelsa, where the foliage is very small and intricate, dust and other deleterious accumulations may be removed by vigorously syringing them with weak soapy water that is heated to 100° Fahr. The plants should be laid on their sides for this purpose, as then there is no danger of the soil becoming soaked with the soapy water. Cacti that have been kept dry all the winter may now be given a light watering with tepid water, and allot to them the sunniest window in the house. H.

GRAFTING FRUIT TREES.

GRAFTING is one of the oldest methods of propagating fruit trees, the practice having been followed for hundreds of years by those who desired to increase their stock of different fruits. There are several methods of grafting fruit trees, the three more popular methods being (*a*) whip or tongue grafting; (*b*) crown or rind grafting; (*c*) cleft grafting. Whip grafting is usually carried out on small stocks, rind grafting on older trees and cleft grafting on large branches. There is also grafting by approach or inarching, which is a very simple method; slice grafting, as well as side grafting. We are more especially interested in the three methods first mentioned, as they are more generally observed by the practical man. We cannot deal with the three methods in the present instance, and propose, therefore, to explain the way in which whip or tongue grafting may be carried out.

Grafting is usually performed in the spring just as the sap is about to rise. In order to simplify this method of grafting we must, first of all, explain the terms used in connexion therewith. For instance, the plant or tree on which the graft is to be made is generally termed the "stock." The "scion" is that portion of growth of another tree that it is desired to unite to the "stock" aforementioned, and the "stock" and "scion" should be as nearly as possible of equal size.

First of all, we desire to portray how the "stock" should be treated previous to the actual grafting. In Fig. 1 the growth on the left of the picture shows how the cut should be made in sloping fashion, inserting the knife—which should be a strong and sharp one—opposite a bud, making the cut in an upward direction and finishing off about half an inch above the bud. The upper portion of the "stock" assists to give a better idea how the cut through the stem should be made. The growth on the right of the picture in Fig. 1 should represent a suitable "scion" for grafting purposes. To further simplify the method of procedure we have endeavoured to illustrate in Fig. 2 how both the "stock" and "scion" should be dealt with. Note on the left of the picture the same portion of "stock" as represented in Fig. 1, but with this difference: the "stock" is sliced, *i.e.*, an upward cut is made at its apex some 2 inches to 3 inches in length in slanting fashion, to correspond with the slanting cut downwards of the "scion" it is proposed to unite with this same "stock."



2.—ON THE LEFT IS SHOWN HOW THE UPPER PART OF THE STOCK IS SLICED IN AN UPWARD DIRECTION. THE CENTRAL FIGURE REPRESENTS THE STOCK "TONGUED," AND THE FIGURE ON THE RIGHT SHOWS THE SCION TONGUED PREPARATORY TO THE GRAFTING PROCESS.

3.—THE TONGUED SCION ADJUSTED IN POSITION IN THE TONGUED STOCK PREVIOUS TO BEING TIED WITH RAFFIA. NOTE HOW EVENLY THEY ARE PLACED TOGETHER.

The centre figure in the picture serves to illustrate the manner in which the "stock" is tongued. A close inspection of the upper portion of the "stock" will reveal what is known as a "tongue." This is made by another slanting cut, but in the present instance in a downward direction, at the same time inclining inwards. In small stocks nothing more than a simple cut downwards is necessary, but in older and larger "stocks" it is necessary to remove a piece of wood by making a vertical cut from the top, and in this way taking out a wedge-shaped piece of wood. The "scions" of larger growth need to be treated similarly in order that they shall fit into each other better when adjusted in position. The "scion" on the right of Fig. 2 was made from that seen on the right in Fig. 1. It is a growth of the previous year, and in its preparation a slanting cut downwards some 2 inches to 3 inches long was made to correspond with the "stock" prepared in a somewhat similar manner as described above. The cut should be made about an eighth to a quarter of an inch in depth. The "scion" is then "tongued," *i.e.*, a "tongue" is made by cutting upwards in a slanting direction and of such a depth that the "tongue" will fit in the cleft made in the "stock" for its reception. The "scion" may be rather less in diameter than the "stock," but the "tongue" must be of precisely the same length.

Fig. 3 shows the prepared "scion" with the "tongue" securely adjusted in position in the cleft of the "stock." Careful observation reveals the fact how neatly they agree; at least, on the one side on which the graft is being carried into effect. We wish before proceeding further to emphasise the importance of making the cuts in the cleanest and neatest fashion, and before entering on the final stage of the work to be quite satisfied the "scion" is properly and securely placed in position.

Fig. 4 aptly describes the closing operations. Note the care with which the "scion" has been secured to the "stock." Both "scion" and "stock" must be firmly bound together, using either matting or raffia for this purpose. We know of growers who do not hesitate to use twine of a suitable kind, and this has always answered very well. It is important to remember that the pressure of the binding material should be equal throughout.

The final operation is portrayed on the right of Fig. 4. Note the bulky character of the graft now that it is completed. This is quite necessary, and is carried out as follows: Cover the graft and binding material with clay that has been well worked with the fingers to make it pliable and adhesive, and use a sufficient quantity to exclude both air and moisture from the union, as an air-tight state of affairs is essential to success. Instead of using just ordinary clay, some persons make up the following preparation: Take 12oz. of resin, 2oz. of lard, and melt over a slow fire, subsequently adding 2⅔oz. of alcohol sp. gr. 30°. Before adding the last mentioned to the resin and lard the vessel should be removed from the fire, as there would be considerable risk of ignition owing to its inflammable nature. Mix well and turn into a tin of some sort, where it should be left to cool, after which it may be used. The clay should be maintained in a somewhat moist condition and the prepared mastic covering kept in an equally effective state. When the "scion" has made some 6 inches of growth, the ligature should be loosened and a stake or support of some kind or other inserted at once. See that both "scion" and "stock" are securely tied to this support, otherwise boisterous winds may arise unexpectedly and undo what has been successfully accomplished after so much devotion and patience.

Generally speaking it is best for the amateur to purchase his fruit trees from a good nurseryman who makes a special study of the various stocks and the effect that they have on the varieties grafted thereon, but instances are sure to crop up where it is useful to know how grafting should be done. D. B. C.

THE TOWN GARDEN.

The days are lengthening very perceptibly now, and although we may reasonably expect freedom from severe frosts, we may not escape occasional frosty weather, accompanied by very cold east winds. The sap will soon be rising and causing the buds of deciduous trees and shrubs, and also border plants, to grow, and we must hasten on all work of a preparatory character, so as to be able to attend to details connected with the successful management of the town garden when the time comes for prompt action. During the autumn and winter it is possible to put off some work from day to day for a time without any harm being done, but in spring any lengthy delay may prove decidedly harmful.

Pruning Deciduous Shrubs.—The judicious pruning of deciduous (and also evergreen) shrubs not only makes them more beautiful to look at, but strengthens them considerably, too. I urge judicious pruning, as any careless cutting away of branches may spoil the specimens altogether, and a formal trimming of all shoots robs them of their true character. Use the pruning knife, pruning scissors and saw for the carrying out of this work and not the hedge-shears. Cut off the shoots and branches, but do not mutilate the leaves—when dealing with evergreens—and avoid making any jagged cuts. After sawing off a thick branch, make the end of the stump quite smooth with a sharp knife. In all cases the branches must be cut off several inches inwards from the outer line of the shrub; if the branch be severed level with the small outside shoots, the new ones, when they grow from the end of the stump, would form a protruding cluster of shoots. Remove a few branches from different parts of the bush as required, so as to improve its form and yet retain the natural character of each kind dealt with. Shrubs that flower on last year's wood should not be pruned until after they have blossomed.

Pansies.—These are very suitable plants for the filling of borders both in spring and summer in the town garden. Many years ago I was much impressed by the beauty of a number of beds filled with Pansies in a town garden where the soil was almost pure sand. To be successful it is necessary to make the soil fairly rich with well-rotted manure in any case, that is, where the soil is of average good quality, but especially is it needful when the rooting medium is very sandy. Having obtained good plants and got them established, watering, top-dressing and the removal of all faded flowers regularly every week must be work that is never neglected. Plants overladen with seed-pods quickly cease to produce new flower-buds; but when the faded flowers are removed the plants strive to bear fresh ones, and so they gladden our hearts with their wealth of blossom during the whole of the summer season. Autumn-raised plants must now be carefully examined. Those growing in the beds in which they are to blossom ought to be top-dressed with a mixture of fibrous loam, leaf-soil and well-rotted manure. This must be made up as follows: Loam, two parts; leaf-soil, one part; and manure, one part. The latter ingredient must be passed through a 1-inch mesh sieve and then thoroughly mixed with the other parts. Very carefully put on the top-dressing about 2 inches deep among the plants. Extra fine flowers will be the result of such treatment. Plants in nursery beds must also be examined, the soil being lightly stirred with a stick on the surface, and any specimens showing a straggling habit must be pulled up and discarded, as all such generally bear small, insignificant flowers.

Violets.—As a rule old plants in clumps are retained from year to year, though they do not bear large flowers similar to those borne by young layers; but the old specimens may be strengthened very much by a top-dressing of loam and manure, or loam only. One may often see the surface roots of old Violet plants quite exposed. Put on the prepared top-dressing at once, well working in the compost among the

4.—ON THE LEFT IS THE GRAFT SECURELY TIED, AND ON THE RIGHT THE SAME GRAFT IS COVERED WITH CLAY TO MAKE IT AIR-TIGHT.

roots without injuring the leaves, and immediately afterwards give a thorough watering through a fine-rosed watering-can to settle the new soil in position.

The Lawn.—There are often occasions now when the lawn is comparatively dry on the surface. Take the first opportunity to get all worm-casts scattered with the besom, and then roll thoroughly; the dry soil will not adhere to the roller, but the latter will do a great deal of good. Avon.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Flower Garden.

PROPAGATING. — Where Alternantheras and similar plants are used in large quantities for carpet bedding, propagation is a matter of importance. From now onwards the old plants should be kept in a warm temperature for the production of quantities of young cuttings. These, if dibbled thickly in pots or shallow boxes filled with a sandy compost, well watered and placed in a propagating frame, and kept close and shaded from the bright sun, will quickly emit roots and produce more cuttings. Iresine, Lobelia, Coleus, Heliotrope, Verbena and several other plants for bedding purposes should receive every attention, and a sufficient number of cuttings should be rooted so that nice sturdy plants may be obtained by the time they are required.

Dahlia Roots.—These may be placed in heat to start them into growth for the production of cuttings. When propagating use short stubby growths, and pull them off with a bit of the parent tuber attached. Place the cutting pots in a warm bottom-heat, and pot the young plants into 4-inch pots when well rooted. Seed may also be sown of both the single and double varieties. The former are very useful for garden decoration.

Cannas resting may now be cleaned and placed in boxes and stood in a temperature of 55°. Let the roots be well watered to settle the soil, after which little more will be required for some time.

Hardy Fruits.

Pruning and Staking of all newly planted fruit trees should now be done. If the soil is in a rather dry state, trample moderately firmly over and about the roots. Use stout stakes for standards, and tie them so that there is no injury done to the bark. Prune the heads more or less according to the strength of the growths, and always cut back to a good bud pointing in the direction the following growth is required to take to form the future head of the tree. All newly planted trees I usually cut back to about 9 inches to 12 inches.

Protecting Fruit Trees.—See that all protecting material is in readiness for use. Peach trees we usually protect with two or three thicknesses of fish-netting, and in very severe frosts place small pieces of Portugal Laurel among the branches; in this way we usually obtain a good crop. In some seasons very little protection is needed, but as the weather is so very uncertain it is best to be prepared. A more elaborate system is that of blinds, these being raised or lowered according to the weather.

Vegetable Garden.

Onions.—The main crop of Onions should be sown when the land is in suitable condition. Let the soil be rich and firm and afford a heavy dressing of soot previous to drawing the drills 1 foot apart and 1 inch deep. Do not sow the seed thickly if new and good, but if there be a doubt as to its germinating powers sow more.

Parsnips.—These may also be sown when the soil is suitable. The land for these should be very deeply worked and the drills for the seed made 1 inch deep and 15 inches apart.

Celery.—Sow seeds of a good early white, and of other varieties for later use. In preparing pans or pots, the drainage should be good, and for all seed the soil should be pressed rather firm. Stand the pans in a newly started vinery and cover them with glass or paper until the young seedlings appear, when it should be gradually removed. H. Markham.

(Gardener to Viscount Enfield.)

Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

Fruit Department.

Early Vinery.—With lengthening days and increasing solar heat growth daily becomes more rapid, consequently greater and more frequent attention must be given to regulating, tying and stopping the shoots as they extend and fill the hitherto vacant parts of the trellis. Following upon this, lateral shoots as a rule start more freely, and these in turn are best stopped immediately above the nearest leaf to the base, unless from any cause the principal foliage of the Vine has been injured, when greater length may with advantage be left. Until now growth has been comparatively slow, and weekly attention to the foliage has been sufficient; but in future a shorter interval would be better. In the succession house, as soon as a few leaves expand along the Vines, disbudding may be performed, dispensing first with misplaced and superfluous buds until two only are left, the final selection of these being made when bunches are prominent. Late houses containing Muscat of Alexandria, Gros Colmar, Lady Downe's and Alicante, which, to do them justice, require a long season of growth, should now be put in order for starting by having all cleansing finished and the borders manured if necessary and well watered.

Peaches and Nectarines. — Surplus shoots having been removed from the branches in the earliest house, those reserved may be secured to the trellis, care being taken that only the number required to furnish the trees are retained. Thinning the crop should be carried out at intervals, and more freely than usual, as, owing to the brilliant weather of last summer, the wood became well ripened, hence premature casting of the fruit from the trees is this season improbable. As the flowers fade in the succession houses, the trees should be forcibly syringed with tepid water to clear away the decaying flower-petals, and if aphides have obtained a footing, 1oz. of Gishurst Compound dissolved and added to each gallon of liquid will exterminate them. Disbudding should follow in due course, or before the shoots crowd each other. With young trees the reserved shoots should start from the upper side of the branches, but with aged trees the main endeavour is to keep every part furnished with bearing wood, irrespective of its starting-point.

Kitchen Garden.

Potatoes.—The planting of these for an early supply may now be commenced in most localities whenever soil and weather are favourable. For a first crop Sharpe's Victor, Duke of York and Ringleader are reliable; while Midlothian Early and Sir John Llewelyn are excellent for succession. A south aspect at the foot of a wall or hedge is best for an early crop. The ground, having been manured and dug, may be laid out with drills at 2 feet apart, and the tubers (already sprouted) be placed therein at 9 inches apart and well covered with soil. The tubers sometimes fare badly in slug-infested ground; but soot, lime or burnt ash sprinkled within the drills and over the entire surface when all is finished are helpful in keeping these at bay.

Parsnips and Onions.—Both of these require a long season, and seeds should be sown as soon as the ground is dry and in good working order. A difficulty often arises in growing the first-named crop owing to grubs attacking the roots. Holes made with a pointed bar and filled with fresh soil and sand, upon which, on being made firm, the seeds are sown, is a pretty sure remedy. Onions thrive best and form the soundest bulbs upon firm ground. After being manured, dug and levelled, drills may be drawn 1 foot apart and the seeds sown therein thinly and evenly. Soot should if possible be applied and the surface made firm and even. James Day.

(Gardener to the Earl of Galloway.)

Galloway House, Garlieston, Wigtownshire.

NEW PLANTS.

Cymbidium woodhamsianum Orchidhurst variety.—This is a very bright and attractive variety, the sepals and petals being pale green, the labellum creamy white, with a bright carmine band nearly, but not quite, edging it, a thin creamy margin being present. The flowers are large and the plant is evidently very robust. Shown by Messrs. Armstrong and Brown, Tunbridge Wells. Award of merit.

Lælio-Cattleya Pizarro Westonbirt variety.—This is a very rich and refined Orchid, the large flower being of exceptionally good colour. The sepals and petals are of a bright rosy mauve colour, the latter being very broad and somewhat twisted. The labellum is very large and heavily fringed, the throat being rich golden yellow, suffused with carmine, a nearly half-inch-wide margin of the bright mauve colour finishing off this organ. Shown by Lieutenant-Colonel Holford, C.I.E., C.V.O., Tetbury, Gloucestershire. First-class certificate.

Cattleya Trianæ Mooreana.—A very beautiful variety of the well-known C. Trianæ. The sepals are rather narrow and almost lanceolate in shape, these being nearly obscured by the huge, slightly reflexing petals, the colour of both being rosy mauve. The labellum is of rich velvety carmine, with a zone of rich yellow placed within the throat, the outside of the labellum being mauve, suffused with carmine. Shown by Lieutenant-Colonel Holford. First-class certificate.

Dendrobium Lady Colman.—This is a very large-flowered member of this family. The large sepals and petals are creamy white at the base, this running off into bright mauve at the apices. The labellum is large and well shaped, a large zone of deep rich dull carmine extending well into the base. Surrounding this is a well-defined band of cream, and at the base is a broad edging of bright mauve or rosy pink. Shown by Sir Jeremiah Colman, Bart., Gatton Park. Award of merit.

Cynoches peruvianum Tracey's variety.—A very graceful and pretty variety. The small greenish yellow flowers are packed in dense, pendulous racemes, the sepals and petals being very freely dotted with small brownish crimson dots. The long, narrow labellum is of a reddish brown hue, and the star-like white column is a conspicuous feature. Shown by Mr. H. A. Tracey, Twickenham. Award of merit.

Dendrobium atro-brymerianum.—A very curious Dendrobium with pale green sepals and petals, dotted on the outside with small dull carmine spots. The recurved labellum is of the same colour as the other segments, but is also freely marked on the inside with the spots already mentioned. Shown by R. Thwaites, Esq. Certificate of appreciation.

Cypripedium Bridgei magnificum.—This is a very handsome member of the mottled or netted leaved section, although this feature is not very conspicuous. The labellum is extra large and sloped slightly forward, the green ground colour being almost obscured by the dark crimson colour except at the margins, which remain pale green. The petals are large, oar-shaped and very slightly twisted, the colour being dull carmine or almost crimson, suffused with green, this latter colour, dotted crimson, predominating at the base. The labellum is long, light crimson towards the mouth and pale green at the base. Shown by G. F. Moore, Esq., Chardwar. Award of merit.

Odontioda lutelea.—This is a very beautiful addition to this bi-generic family, the large flowers being of superb form. The petals, sepals and labellum are of a bright orange scarlet hue, these being marbled with dull cream. The plant shown had nine fully opened flowers and three buds. First-class certificate.

Odontioda keighleyense. — The brightest-coloured Odontioda yet shown; but the form of the flowers is not up to the average, the sepals and petals being rather narrow and of irregular

outline. The colour is bright scarlet with small pale yellow markings. Award of merit. Both the foregoing were shown by Messrs. Charlesworth and Co., Hayward's Heath.

Freesia Rose Queen.—This is a useful addition to a beautiful and elegant race of flowering plants, and, we believe, darker in colour than any of the coloured forms that have preceded it. It is of rosy purple hue—so far, indeed, as the true colour could be seen on a day of intense fog—paler at the base of the tube, where there is also a suspicion of yellow or orange. The variety is pleasingly scented, and there is no doubt that, when seen in a more established condition, it will command attention. Exhibited by Messrs. Barr and Sons, Covent Garden. Award of merit.

All the foregoing were shown before the Royal Horticultural Society on the 23rd ult., when the awards were made.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Raising annuals (*Suburb*).—All the annuals that you name, with the exception of the Zinnia, will do best, of course, where the plants are intended to grow, or, perhaps, we should say that there is no need to raise them in frames. The Zinnias are best raised in a warm frame, then hardened off and planted out in the usual way. Please see correspondence columns in last week's issue for Cupid Sweet Peas.

Plants for a bed (*James Lyons*).—We think your proposed arrangement will do quite well, and for a white-flowered plant we suggest the very free-flowering Alyssum maritimum, seeds of which could be sown where intended to flower, or the plants could be transplanted. This plant is rarely more than 4 inches to 6 inches high and blooms profusely. Achillea umbellata and A. Clavennæ are silvery leaved plants that should answer if you require something of a more permanent character.

Border Carnations (*Rus in Urbe*).—We agree with you that the border Carnation is indeed a charming flower and well worth any extra care involved in its culture. To succeed with this flower it is necessary to have a good and well-drained soil. If you desire to make another attempt, commence with a small circular bed, throw out all the old soil to a depth of 2 feet, fork up the bottom, then put in 6 inches of broken bricks, stones, clinkers or similar rubble. Next obtain a few barrow-loads of good loam and mix with it, at the rate of one part to three, some good one year old manure, a peck or two of road scrapings or sand and a peck of charcoal broken up small. Mix all well together and fill in the bed, allowing it to rise fully 6 inches above the ground level. The sooner the work is done the better. Procure pot-grown plants and plant out during March. The best time to plant is October, as the plants will then yield a lot of "grass," as the shoots are termed, which are layered for replanting the bed again and for planting other beds. The layering process is very simple. We shall doubtless have some articles dealing with this and other matters relating to Carnations during the season. If you have a heated greenhouse, seedling Carnations could be raised, and they give the best results, for they are more robust and less particular as to soil. It is possible to have plants of seedlings develop into large plants, carrying as many as 100 to 200 blooms each, and as the seedlings will produce from 70 per cent. to 80 per cent. of double varieties, it will be seen that an investment in a packet of good seed is a profitable one. Some good fancy Carnations are Hidalgo, Yolande, Brodick, Monarch, Zingara and Mrs. G. A. Reynolds; and Picotees His Excellency, Empress Eugénie, Mrs. Tremayne, Dervish, Mr. Nigel and Mohican.

Plants for bordering a drive (*Amateur*).—We presume you require annual flowers and such as would make a good display for a lengthy period. Just what you might grow satisfactorily will depend not a little upon the conveniences you have for raising them, though if you prefer such as could be grown in the open, you might indulge freely in Sweet Peas in variety, arranging them in groups 3 feet across and a few feet asunder, and alternate these with groups of annual Sunflowers. These would make a bold back line of groups. In front of these plant Lavatera trimestris, Rocket Larkspur, Helianthus cucumerifolius and green and variegated Maize; and again, in front of these might come Snapdragons, Pentstemons, Chrysanthemums Evening Star and Morning Star, C. carinatum in variety, C. coronatum and others. In the more immediate front, Godetias, Phlox Drummondii, Calliopsis, Mignonette, Linum, Candytuft and many more could be arranged, while if you possess a greenhouse, Stocks, Asters, Nicotiana sylvestris, Love-lies-Bleeding and Zinnias may be raised for successional flowering. There are, of course, many perennials that could be planted to flower this year (the Michaelmas Daisies, for example), and you might add a collection of the early flowering Chrysanthemums, which would carry on the display well into the autumn months. For the smaller beds we suggest tuberous Begonias in white, pink, scarlet, yellow and crimson shades, one colour only in each bed. These may be planted out in May or early June from the boxes in which they had been started, arranging them at 9 inches apart each way and, if need be, sowing a sprinkling of Mignonette among the plants.

Supports for Sweet Peas (*J. H. M.*).—As you object to brushy sticks, you cannot do better than use 2-inch mesh wire netting as you suggest. This is largely employed by many growers without injury to the plants resulting. The string has the disadvantage of becoming very taut or slack, according to the humidity of the atmosphere.

Climbing plant for wall (*Church Circle*).—We do not think you can improve upon the Nasturtium for a quick-growing annual climber, but, of course, there will be a certain amount of training necessary for this, as for other things. Eccremocarpus scaber and Tropæolum tuberosum are both good for sunny aspects, the former being of sub-shrubby habit and the latter tuberous rooted. The Tropæolum should do uncommonly well in your district.

Vitis henryana (*Salop*).—We presume this is the plant you refer to when you write of Ampelopsis henryanus, and which you will find quite hardy in your district. In the Midlands generally the species is safe enough when planted in open positions, such as pergolas, pillars or even as isolated examples on rude poles. The species also possesses a decorative value of its own when grown in the cool conservatory, the well-marked leaves being most effective.

Peat-moss litter (*H.*).—You did quite right in spreading the manure on the garden with which it was intended presently to be incorporated for the cultivation of flowering plants. Having been on the surface some months it would be in a condition for digging in, to the benefit of almost any crop you like to plant. It is another matter altogether, however, to bring the fresh manure into contact with living plants, and this we cannot advise you to do. The manure in question is of a strongly absorbent nature, and in placing it upon vacant ground you did the right thing, as the manurial properties would be carried down and so enrich the soil. Whether the manure is good as a mulch will depend upon circumstances and, in particular, the crop to which it is applied. Speaking generally, it would not be safe to use it as a mulch fresh from the stables if applied to growing plants; far better that you stack it or place it in a pit and incorporate with it one-third its bulk of garden soil. In this way, and at the end of three or four months, you would be possessed of a heap of material of much value and rich in the primary essentials to plant-life.

Single Violet plants in frames not flowering (*H. P. B.*).—The past winter has been a very trying one for Violet plants. No doubt as the days lengthen and with brighter weather the plants will flower freely. It is the custom with many to grow the plants intended for winter flowering on shady borders. This is a mistake, as grown on this aspect the plants are soft and not in good condition to stand the rigours of a hard winter even under glass. Let them be grown rather in well-manured and cultivated land where they can be exposed to sun and light all day. Another frequent cause of Violet plants not flowering well in winter is because they have been allowed to flower freely in late summer and early autumn out of doors before being placed under glass. This should on no account be allowed; every bud should be picked off as it appears.

Summer bedding (*M. L. Fell*).—What might be done in the way of novelty in these matters is often prohibited either by reason of the cost or from lack of convenience to grow the necessary plants. We are not surprised that you have a desire to get away from the eternal and meaningless glare of scarlet Geranium (so-called) and Calceolaria, though in any case summer bedding not infrequently becomes more or less monotonous for the same reason that makes the things named objectionable now. Just what you may advantageously employ depends not a little on the size of the beds, and of this you give us no idea. But seeing that you possess a longing for sweet-scented flowers, we think you might with pleasure and profit try some beds of the perpetual-flowering Carnations, such as Winter Cheer and Britannia, scarlet: Mrs. T. W. Lawson, cerise; Mrs. Brooks, white; Enchantress, pale pink; and Floriana, cerise pink. To do these justice, strong plants should be put out late in May from 5-inch pots, and such as these would flower till frosts set in. Not all the above are strongly fragrant, but most of these have a fragrance of their own. The surfaces of these Carnation beds could be carpeted or thinly planted with white Alyssum, Mignonette or Tufted Pansies. Possibly, too, you would like to embrace beds of Stocks, say, a white variety, with Liberty or Richmond Rose springing therefrom, or the same Roses with a carpet of white Tufted Pansy Empress. Other beds might be planted with scarlet Fuchsias, interspersed with variegated Cock's-foot Grass, while the ever-welcome fragrance of Cherry Pie or Heliotrope becomes an essential item where fragrance is so much desired. Another delightful subject is that most fragrant Verbena Lovely Blue, which is as unique in colour as it is in fragrance. Beds wholly composed of the two last named or in duplicate might easily be arranged in the narrow section given in the sketch or at opposite ends of the two square plots shown, and if in the former a centre bed of the white-flowered Tobacco (Nicotiana affinis) might be arranged with scarlet Lobelia fulgens or Queen Victoria springing therefrom. The majority of the plants named are profuse flowering, and valuable from that point of view, and we feel sure that a trial of some of them during the ensuing summer will afford you a great amount of pleasure. The scented-leaved Verbena and the Lavender are also delightful subjects in the garden.

THE GREENHOUSE.

Narcissus Sir Watkin not flowering well (*E. B. B.*).—Your enquiry is a little vague, and we should like to have fuller particulars to enable us to give a definite reply. If we understand you rightly, you dug up and divided the bulbs last June, in itself an early date for your district, and one that would hardly admit of the embryo flower-bud being well formed. You say "it had been necessary to divide the bulbs," but it is not clearly stated that the bulbs were divided last June, and if so, the probabilities are that the flowering bulbs were planted back. Narcissus Sir Watkin is usually a robust grower and a reliable variety to flower. So far as the lifting period is concerned, mid-July for your district would have been better, and for the purpose you name this nearly perpetual-rooting variety needed no drying off at all. Drying is a sort of necessary evil that should be peculiar to the commercial aspect of the case, but for a private garden it is not necessary and, like all alien methods, is weakening in its effects. The fact that so small a percentage has flowered may be due to a variety of causes, and may be accounted for by reason of the crowded growth that rendered division necessary, and which should have been rectified by a full year's growth as separate individuals in the open ground; or it may be due to too early lifting and at a stage prior to the formation of the flower-bud. Had

we a bulb or two before us, we could have given you a more definite reply, and if you would like to send a fair sample of the failing ones, foliage and all complete, together with a few more particulars, we will do our best to make matters perfectly clear and easy for you in the future.

Plants for glass house facing north (*J. P.*).—In such a structure as that indicated by you greenhouse plants of many kinds could be grown, including the subjects named in your query. For the roof, besides Roses and Fuchsias, you might have Clematis indivisa, Passifloras, Lantana salviæfolia and Abutilons. These last, owing to their quick growth and showy pendulous flowers, are seen to great advantage trained to a roof. Two of the best are Boule de Neige (white) and Golden Fleece (yellow). If you fancy growing several different subjects you may, on the shelves, grow a miscellaneous collection of greenhouse plants. Besides the Begonias, Carnations and Geraniums named by you, most of the plants commonly met with in a greenhouse can be grown therein. Among them may be named Fuchsias, as well as those trained to the roof, Bouvardias, Cannas, Heliotrope, Lantanas, Primulas, Campanulas, Arum Lilies, Lilium longiflorum and many others.

Carnation for inspection (*P. T. T.*).—Although the Carnation flower you send is pleasing enough, we do not think it of sufficient merit to retain, even if you can fix it. As you say it was growing on a plant of Lady Bountiful, it is, without doubt, a sport of that variety, and, of course, we cannot give you its name beyond that, for the simple reason that it has not got one.

Size and paint for hot-water pipes (*C. A. T.*).—We have made enquiries in all directions and cannot find anyone who has had practical experience of size mixed with paint for the coating of hot-water pipes. At the same time, we should not expect the size to cause any injury to the plants; still, your experience would suggest that it is the cause of the trouble. Perhaps some readers of THE GARDEN will be able to help us in the matter?

Bulbs after flowering (*J. D.*).—Your bulbs are not likely to give you much satisfaction another year; indeed, the Paper-white Narcissi and Roman Hyacinths may be thrown away at once. The others may be stood in a cold frame till frosts are over, when they should be laid in the ground till the leaves die down. If taken up in summer and cleaned, they may be planted out anywhere in the open, as they will in all probability throw up a few flowers, but are useless for blooming in pots another season.

Sample of potting soil for inspection (*E. R.*).—We have carefully examined the enclosed sample of soil and find it very poor in quality, and not at all suited for potting purposes. It is certainly no better than ordinary mould from a garden; at least, soil equally good may be dug up from many gardens. As you say, it is next to impossible to keep it in a medium state of moisture, it becoming either sodden or dust dry. If loam such as that forms the basis of your available potting compost, this is sufficient to account for the failure of your Begonias and Cinerarias. Horse-manure should not be mixed with potting soil, this being of too light and drying a nature unless the soil itself is too heavy.

KITCHEN GARDEN.

Growing Mushrooms in a cellar (*Zero*).—In a cellar of the dimensions you name you could have three separate beds, each 9 yards long, leaving ample spaces between each bed for covering over and gathering the Mushrooms, &c. The beds are made in ridge form, 2½ feet high and 2½ feet wide at the base. Two heaped-up cartloads of fresh stable manure (to include about half short straw) is the quantity required to make 3 yards run of bed. The manure has to undergo a process of fermentation before it is used, when its bulk, of course, will be considerably reduced. Good spawn will cost from 1s. 6d. to 2s. a bushel, and a bushel will spawn about 2 yards of bed. Ordinary garden soil will do for covering the beds after spawning. If the crop is a good one, a yard of bed should return from 12s. to 15s. Success depends upon a good supply of fresh horse-manure being available and cheap, and upon a knowledge of the details of culture. We advise you to invest 1s. 3d. in a book on Mushroom culture by Mr. Barter (a life-long successful Mushroom grower), to be obtained from the publisher, 41, Wellington Street, W.C., or to consult back numbers of THE GARDEN, where the subject is exhaustively treated.

ROSE GARDEN.

Pruning Roses (*Percy*).—We are glad you find THE GARDEN so helpful. The part of Essex in which you reside is excellent for Roses; indeed, the county is noted for the high quality of the blooms it produces. The plants should be pruned about the middle of March, generally speaking, but the Tea-scented varieties are deferred until April. Climbing Roses should be pruned when they have finished blooming. This consists in removing some of the old growths and retaining the best of the new shoots. They are then gone over again in February and the side or lateral shoots then shortened to two or three eyes or buds. Standard Roses are pruned very similar to dwarf or bush plants. The vigorous-growing sorts are shortened back to about 12 inches to 15 inches, while those of medium growth are reduced to 6 inches or 8 inches. Some vigorous-growing standard Roses of the climbing type, such as Gloire de Dijon and W. A. Richardson, may have their growths left almost full length and tied over umbrella-like, attaching the shoots by means of string to the stem. This induces a freer blooming all over the tied growths. After flowering, some of these growths are cut away and younger shoots utilised another year. You will find some useful information as to pruning the various sorts in our issues for February 23 and March 2 of the year 1907, and March 7 and 14 of last year.

Sixty best exhibition Roses (*W. Hindle*).—We append herewith a list of sixty varieties that are, in our opinion, the best for exhibition purposes. A few of them would be best budded annually, and for this purpose you should plant during the present and next month some Briar cutting stocks or some seedling Briars, and bud them this coming July and August. The varieties that should be thus budded we have marked with an asterisk. For the Tea-scented varieties it would be best if you could procure them as half-standards, for one obtains much superior flowers in this form than from bushes. The sixty varieties we recommend are as follows: Hybrid Perpetuals—Frau Karl Druschki, Mrs. John Laing, Ulrich Brunner, *A. K. Williams, Hugh Dickson, Mrs. R. G. Sharman Crawford, *Gustave Piganeau, Her Majesty, *Victor Hugo, *Horace Vernet, *Helen Keller, Suzanne M. Rodocanachi, Captain Hayward, Marchioness of Londonderry, Dr. William Gordon, Prince Arthur, Charles Lefebvre, Marie Baumann and Alfred Colomb. Hybrid Teas—*Bessie Brown, Dean Hole, *Mildred Grant, Caroline Testout, J. B. Clark, Florence Pemberton, *Kaiserin Augusta Victoria, *Mrs. W. J. Grant, Alice Lindsell, La France, Lady Ashtown, William Shean, *Marquise Litta, Killarney, Mrs. T. Roosevelt, *White Lady and Queen of Spain. Tea-scented—White Maman Cochet, Mrs. E. Mawley, Mme. J. Gravereaux, Maman Cochet, Souvenir de Pierre Notting, Comtesse de Nadaillac, Medea, The Bride, Muriel Grahame, Catherine Mermet, Mme. Cusin, Bridesmaid, Innocente Pirola, Souvenir de S. A. Prince, Souvenir d'Elise Vardon, Mme. Constant Soupert, Mme. Hoste, Souvenir d'un Ami, Maréchal Niel, Anna Ollivier, Mrs. Myles Kennedy, Lady Roberts, Golden Gate and Marie van Houtte.

Rose hedge facing east (*D. Morris*).—You cannot do better than plant several of the beautiful wichuraiana Roses for forming your hedge. They are prodigious-growing, one plant making an enormous amount of growth in one season, and there is a wide range of colour now among them. The Roses you name to mix with the above are, with the exception of Frau Karl Druschki, Fellenberg, Mme. Abel Chatenay, Hugh Dickson and Grüss an Teplitz, quite unsuitable, their growth not being sufficiently vigorous. We give the names of varieties eminently suitable for making a hedge, and have arranged them in three groups—early, medium and late flowering—so that you may so distribute them as to have your hedge interesting from early June to late October, and even November in your district. We have put an asterisk against those that are most evergreen. Early flowering wichuraianas: *Alberic Barbier, *Gardenia, *Jersey Beauty, Réné André, Ruby Queen. Other classes: Penzance Briars, Carmine Pillar, The Dawson Rose, Mrs. A. Waterer, Mme. Plantier, Blairii No. 2, The Lion, Una, Harrisonii, *Aglaia, Electra, Waltham Bride, robusta. Medium wichuraianas: Auguste Barbier, *Elise Robichon, *Sweetheart, *Evergreen Gem, *Ferdinand Roussel. Other classes: Flora, Grüss an Zabern, Mme. d'Arblay, Blush Rambler, Rubin, The Wallflower. Late flowering wichuraianas: *Dorothy Perkins, *White Dorothy Perkins, Manda's Triumph, *wichuraiana rubra, *Edmond Proust. Other classes: *Félicité Perpétue, Crimson Rambler, Conrad F. Meyer, Stanwell Perpetual, Waltham Rambler, Trier, *Mme. Alfred Carrière, *Aimée Vibert, *Grüss an Teplitz, Lady Waterlow, Fellenberg, Zepherin Drouhin, *Longworth Rambler, *Mme. Isaac Pereire, *Cheshunt Hybrid, François Crousse, *Pink Rover, Frau Karl Druschki, Mme. Abel Chatenay, Hugh Dickson, J. B. Clark and *Blanc Double de Coubert.

Moving Rose trees from the open ground in May and June (*Flora*).—The best method would be to take up the Roses as early as possible and pot them; they could then be replanted at any convenient time during the summer, without the trees receiving any check or sacrificing the bloom. If planted from the ground early in May, many of them no doubt would live and succeed fairly well afterwards; but to plant in June would be courting failure.

FRUIT GARDEN.

Apple trees cankered (*Canker*).—Canker in Apple trees is one of those mysterious diseases the cause and cure of which is unknown to vegetable pathologists. The only thing we know is that some varieties are much more liable to its attack than others, and we also know that the disease is far more prevalent on heavy and cold land than on that which is of a warmer nature. Canker seldom or ever kills a tree outright. We often meet with veteran trees which have been its victims for scores of years and yet bearing fair crops of average quality fruit. In your case, having a tenacious, heavy soil to deal with, we would have the land extra well drained. This will considerably increase the temperature of the soil and also have a beneficial effect upon the health of your trees. Also cut away all the dead parts, especially round the wounds; this has the effect sometimes of causing the healthy new bark to grow over the wounded part.

Bands round stems of trees in Apple orchards (*A. M. B.*).—These bands are placed round the stems of Apple trees to prevent depredations from the codlin moth, the most destructive of all the insect pests the Apple tree is exposed to. The bands may be formed of stout brown paper, or thin pieces of carpet or sacking may be used. They should be 5 inches wide and long enough to allow a little overlapping at the ends. They must be tied tightly round the stems of the trees at a distance of 18 inches from the ground. Previously the outer side (not the one next the bark) must be thickly dressed with tar, bird-lime or some other greasy or sticky substance. This will prevent the insects from ascending the trees from the ground. The bands must be occasionally redressed so that the surface may retain its stickiness, or the insects would be able to crawl over the hardened surface. The female insects, which cause the trouble, are wingless, and can only reach the branches by climbing up the stem. The caustic alkali burning wash is the best for removing moss, &c., from fruit trees. It is too late to apply it now, as buds are commencing to swell.

MISCELLANEOUS.

Tank for fish (*Rita*).—If the green is caused by stagnant water, your remedy would be in an overflow to carry off the scum daily. This could be done by pumping. If, on the other hand, the green is the fault of the water itself, only filtration will modify it. In any case you might place a few inches of clean gravel in the tank, which would be helpful, and adopt the suggestion of overflowing the water to carry off the scum.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

HOW TO GROW FRUIT TREES IN POTS.

By J. Hudson, V.M.H.

THE following series of articles have been written by Mr. J. Hudson, V.M.H., whose success in the cultivation of fruit trees in this way is well known. Mr. Hudson has given in these articles the results of years of experience, and brings this interesting and profitable way of growing fruit trees in pots thoroughly up-to-date.

Introductory.

It often takes years before any new idea is fully grasped or developed, be it in whatever line one may think of or suggest. So it has been in regard to the subject now brought before the readers of The Garden. The pot culture of fruits in orchard houses is not a new development now; but one thinks it is still in its infancy with many fruit-growers, more especially with those who grow fruits for home consumption. The pioneer of orchard house culture was the late Thomas Rivers, whose writings thereon were looked at askance by many and considered very good in theory, but not so in practice. I have to admit that this was my view of the matter some few years back; but since I have had the opportunity of thoroughly testing this mode of culture, my opinions have completely changed. I have proved now, after some few years of practice, and that to my complete satisfaction, that there is much, I may say, to recommend this system of culture. Opinions, as in other instances, may still differ; but in what follows I shall state only what I have done or what has come under my immediate observation. I may add at this point that it was at the instigation of my present employer, Mr. Leopold de Rothschild, who is himself a most enthusiastic gardener with a practical knowledge of gardening, and, may I also add, with a gardener's difficulties too, that I first embarked into this system of fruit-growing. This is the outcome of one among many other instances resulting from the present-day policy of the Royal Horticultural Society, as it relates to the annual exhibitions held now for so many years in the Temple Gardens. It was at one or more of these shows that Mr. de Rothschild noted the fine displays made by Messrs. Thomas Rivers and Son of Sawbridgeworth. He saw at once that there must be something in the system, and he left it to me to work out in the best way possible.

The Orchard House: What is it? Its Development, &c.

By the term "orchard house" I take it that only such fruits as cannot, in every locality, be grown out of doors was originally intended, where, for instance, the injuries resulting from spring frosts made the crops somewhat precarious and uncertain. This was, in fact, I believe Mr. Thomas Rivers' view of it, so that crops might be ensured year by year, when frequently they would only be partially so outside, owing either to the spring frosts or to the climatic conditions not being so favourable at the time of ripening. Such houses as these would not be heated. The first erections at Sawbridgeworth were not; in fact, the very first houses were merely sheltered at the sides by hedges, or, in other words, a glass roof between two hedges. Now, however, and for some few years past, owing to the enterprise of the firm, a more extended system has been developed, whereby early forcing has been clearly and successfully demonstrated, notably in the case of Nectarines and Peaches. This has opened up a wider range in fruit culture under glass, which is still on the increase. No better proof of this could be needed than by the yearly demand for fruit trees in pots, which has taxed the resources of the firm named, and also those of Messrs. Bunyard and Co. and Messrs. J. Veitch and Sons. Both of these firms now make, like Messrs. Rivers and Son, a speciality of pot fruits.

Their adaptability for other crops, *i.e.*, when forcing is done, is a great feature in favour of such houses, *i.e.*, those for pot trees only. To begin with there is an advantage, inasmuch as sufficient trees to fill at least three or four houses may be kept in one house until the fruit is set, if needs be. I do not advise it being done to this extent if it can be avoided; but one house may be made to contain sufficient trees for two houses later on. For instance, both early and midseason Nectarines and Peaches may be brought forward in the same house, being separated after the fruit is set, the early in one and the midseason in another. Then under the pot trees bulbs may be brought forward for use elsewhere when in bloom or for cutting. Strawberries in pots can be grown from start to finish upon shelves if the pot trees are not too much crowded. When the fruit is gathered and the trees hardened off, so that they can be stood outside, another crop may follow at once. Two or three suggestions for this purpose might be quoted, viz., Melons and Cucumbers, Tomatoes and Figs (the latter in pots, the other three planted out or in pots, as may be most convenient), or if it be a nurseryman's house, other young trees in pots can be thinned out from those houses that are too much crowded, where they can mature and finish their growth. Whether it be in a private garden or in a nursery, such a house by the end of September, or when the other crops are over, might again be filled, this time with Chrysanthemums for October, November and December flowering. In my case the routine has been as follows: First, the pot trees are started from December 1 to December 10, the fruit being all ripe and gathered by the end of May or the first week in June, when the house is well ventilated for a week or ten days. The trees are then stood outside and the house well cleansed, after which we bring in another stock of fruit trees in pots that have set their fruit in a cold house, somewhat crowded together, and those that were temporarily stood outside are placed in this cold house, where they are plunged to the rims in coal-ashes, and where they remain until the time of potting comes round again. This cold house through the winter holds sufficient trees, chiefly of choice dessert Plums, to fill three houses later on. In changing the trees over we only put into it the trees from two early forcing houses, so that they are not overcrowded. The trees from the third house and the Cherries in pots from another

are stood outside until the time of potting, but plunged as a matter of course (the advantage of plunging will be shown later on). To fill up around the sides of the houses some Tomatoes in pots are grown, and upon shelves autumn-fruiting Strawberries are ripened, if occasion arises. We used to prepare a supply of Melons in 6-inch pots to plant out in one house the first week in July; but as these are now found accommodation in another quarter they do not now enter into the routine system of the orchard house. These Melons used to ripen off during September, after which the house was ready for early Chrysanthemums.

(To be continued.)

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

*** *The dates given below are those supplied by the respective Secretaries.*

March 23.—Royal Horticultural Society. Exhibition of Flowers, Plants, &c., 1 p.m. to 6 p.m. Lecture at three o'clock by Mr. R. Lloyd Praeger, on "Rock Gardens, Natural and Artificial." Admission 2s. 6d. Royal Horticultural Hall, Vincent Square, Westminster.

"The Garden" Flower Show.—Judging by the numerous letters received from our readers, this show will be a considerable advance on the excellent exhibition held last year. We would draw the attention of any new readers to the schedule enclosed with this issue, and we ask all to carefully read the particulars contained therein. The names of the judges will be announced in due course. We hope readers will do all they possibly can to make the show widely known, and also bring the results of their labours to the show so that we can see for ourselves what they are capable of growing. Remember the date, July 28th, at the Royal Horticultural Society's Hall, Vincent Square, Westminster, and do not forget that £100 in prizes and a gold medal and silver medals are to be competed for.

Our February Competition.—Owing to the large number of essays sent in we are obliged to hold over the results of this competition until next week, when we hope to announce them and publish the first prize essay.

The Coloured Plate.—We had intended presenting with this issue a coloured plate of a new Sweet Pea; but owing to unforeseen circumstances we are unable to do so. We are, therefore, giving a plate of seedling Chrysanthemums, which marks quite a new departure in colour photography as applied to horticulture, it being reproduced direct from a Lumière plate, which was taken direct from Nature. Colour photography has long been the object of photographic specialists, and it is now, of course, an accomplished fact. We believe that the plate presented with this issue is the first of its kind ever published in a horticultural journal, and on this account it is of more than usual interest.

The Gardeners' Royal Benevolent Institution.—At a largely attended meeting of the committee, presided over by Mr. Harry J. Veitch and including the hon. solicitor (Mr. W. A. Bilney), it was unanimously resolved: "That in view of amendments to the Old Age Pensions Act which will probably be proposed by the Government during the present Session of Parliament, no immediate steps should be taken for the alteration of annuities payable by the institution." At the same meeting £45 was voted from the Good Samaritan Fund in several sums to six gardeners and two widows of gardeners who were in distressed circumstances and in urgent need of assistance.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

The classification of perpetual Roses.—The correspondence is drifting. May I recall your readers to the point? The question is this: Owing to the cross-fertilisation of hybrids is there still, or is there not, any definite botanical distinction easily recognisable between Hybrid Perpetuals, Hybrid Teas, Bourbons and Teas? This was the primary point of my article. We can detect the difference between hybrids of moschata, multiflora and wichuraiana by wood, prickles or foliage. Can the same be said of the four groups of perpetuals above mentioned? It is gratifying to observe that up to the present no one has replied in the affirmative. The question of grouping these Roses for the garden and exhibition purposes is a secondary consideration. The primary point should be bravely faced, not shied at. What is the good of preserving a merely conventional distinction when, for all practical purposes, it is useless? Remarks on the views expressed by your correspondents I will reserve for the present.—JOSEPH H. PEMBERTON, *Havering-atte-Bower*. [We hope our correspondents will keep to the main issue in this discussion.—ED.]

The new classification of Daffodils.—I ask for space for a brief rejoinder to Mr. Jacob, chiefly in order to have an opportunity of making an apology for words which blamed, or seemed to blame, the Council of the Royal Horticultural Society for the failure of the new classification. It appears that the Council did in every respect exactly what the Narcissus Committee requested them to do—no more and no less. The Narcissus Committee—and I share the blame—should, of course, have asked for the work of their delegates to be referred back to them for mature consideration before being presented to the Council for final authorisation. I used the name of the Council inadvertently; my meaning was simply that such a sweeping innovation should not have received the *imprimatur* of the Royal Horticultural Society until endorsed by the whole body of experts. Travesties of Scripture are not necessarily cogent arguments, and much of Mr. Jacob's reply I do not answer because it is scarcely serious or pertinent. He charges me with inaccuracy in calling this classification "new," and devotes a paragraph to my refutation on this point. My answer need not be so lengthy. I refer him first to the introduction to the Royal Horticultural Society's Classified List, which states on its first page that it has become necessary to adopt some "new or modified classification . . . ." and, secondly, to the Royal Horticultural Society's Official Report for 1908, in which it is said (page 13) that "the Committee have delivered their Report instituting an *entirely new system of classification.*" Mr. Jacob asserts that "no extraordinary blunder has been made with regard to" (the omission of) "Mr. P. R. Barr's name, except by Mr. Engleheart himself." He is singularly misinformed. The indisputable facts are that Mr. P. R. Barr, as the original mover for a revision, was one of the first and foremost to be appointed by the Narcissus Committee, and that the subsequent omission of his name came about by a deplorable mistake. Mr. Jacob's remarks about botanical and natural classifications are not very intelligible to me. He quotes my criticism that the new scheme is entirely arbitrary, and seems to think that the quotation is a justification of the scheme. I asserted, and assert, that a scheme so artificial as to ignore broad natural distinctions, which are obvious to the eye of a child, is near to an absurdity. Mr. Jacob's proposition that we can have two concurrent classifications, a common-sense one for common use and another "for the passing needs of shows," is surely a contribution to comic rather than to serious literature. It is much as if, "for the passing needs of horse shows," mules, asses and zebras were to be reckoned as ponies and in everyday life were again to resume their ordinary names. And what should we think of a classification which put together horses and mules in one division and mules and asses in another? This is precisely what this very new classification does by mixing up pure trumpets with their hybrids and pure Poets with their hybrids. No "convenience for shows" can justify such absurdities. As to the place of the pure Poeticus, Mr. Jacob's solution by a sub-division of Class 4 is no solution, as I pointed out in my first notes. If the judge at a horse show has to sort out the pure-bred asses from a class which was obviously meant to include both them and mules, such classification is condemned as ridiculous. But this "entirely new system" has been received with such a chorus of disapproval that it may already be reckoned more dead than Queen Anne. "Unwept, unhonoured and unsung," no one regrets it; we regret only its ill-considered adoption by two or three provincial societies. The subscribers to the Midland Daffodil Society in particular have reason to complain that the schedule was hurriedly altered to the very new classification by one or two over-zealous members, without any notice to the members at large.—G. H. ENGLEHEART.

—— The classification of Daffodils has been adorned by altered texts from the holy library by a presbyter who wrote a feeling article in a late number of THE GARDEN, yet it does not seem to many that he proved the title "new" as given to the efforts of the Royal Horticultural Society to be wrong. Parkinson, Turner, Clusius, Lobel, Gerard, Salisbury, Haworth, Herbert, Leeds, Nelson, Baker, Burbidge and Barr have all worked in the nomenclature and classification of the flower; and with respect to those who have gone before, one does not like to say that their work is all rot and we must wipe it out and begin again. The article which Mr. Engleheart wrote summed up much which had made its appearance before in print under other names, and certainly needed no contradiction from a member of the special committee. One would strive as much as possible to keep the private feelings of individuals out of the question; but doubtless, where so many of the authorities on the said flower are so busy in conducting their own business, it is hard to get a committee of the best judges together to do an unthankful and tedious work. Whether or not any mistake arose in the names of the sub-committee appointed to consider the matter is not for the outside public to judge. Whether any members used their personal influence to have the new classification adopted in local shows is a matter for the committee of such shows to think about. To the general public the question is: Is it a help to exhibitors or merely something extra to learn? As the list now stands it is of little use to either judges or exhibitors. Out of a total of some 2,200 names 800 have been left unclassed. How is a judge to decide what class to place an unclassed flower in when White Queen is Class 2 and the similar yellow Sir Watkin is Class 3? Again, if the classification is to be done by a central authority, how are flowers to be adjudged as to the right or wrong class when shown for the first time in a local show? Mr. Jacob in his article makes remarks about Hyacinth. In the new classification S. H. de Graaff is classed seven quite right, as probably a Polyanthus cross, but it very rarely has more than one flower; while Mary Magdalene de Graaff is classed three when it mostly has two flowers. Doctors differ. Surely in such cases, provided all the stems were the same, whether one, two or more flowers, they should be allowed as qualified for that number, and not be relegated to a class which someone is sure to disagree about.—AGRICOLA.

The new classification of Daffodils.—I am sure many of your readers will be pleased to see the letter from Mr. Engleheart in THE GARDEN of February 20, and will be relieved to know that neither Mr. Engleheart nor Mr. P. R. Barr approves of the new classification; neither the little handbook containing the classified list nor the report of the Royal Horticultural Society's council gives the names of those who formed the committee appointed to undertake the task. There was urgent need of some recognised means of classifying the many new seedlings that appear year after year in increasing numbers; but the committee in its zeal has done too much. It would have been quite sufficient if it had drawn up a list of all the doubtful flowers and classified them according to the old and well-known divisions, instead of instituting an entirely new system and asking us all to take it like a dose of physic; I do not think it will be swallowed so readily. The Daffodil world, not being so very seriously ill, is inclined, I fancy, to enquire rather critically into the ingredients of the medicine that has been prescribed for it, and the more the new classification is examined the more distasteful it appears. It will be no more easy under the new system to say whether a doubtful seedling is a long or a short trumpet, a large or a small or a flat cup, or a "bunch flowered" than it was under the old to say whether it were a Magni, Medio or a Parvi, and then there were all the sub-divisions to help us in the old system. There is a saving clause on pages 2 and 3 of the new Classification which states that: "If the principle involved in the present list should find acceptance, it is intended in a future edition not only to correct and modify the arrangement according to further experience, but also to indicate which varieties are considered to be self yellow and self white large and small trumpets; bicolor large and small trumpets; Poeticus varieties; and colour divisions in other classes." Would it not have been wiser to have submitted the new system to the various Daffodil societies for approval before trying it, or, at least, to have kept it back until it had been made fairly workable and complete? The old system with a classified list of all doubtful flowers for show purposes would have worked very well and would, I feel sure, have satisfied everybody. The Midland Daffodil Society has adopted the new system, and I see in its schedule for 1909 a clause on page 43 providing for the case of a flower being shown which is not classified, and stating that the judges will be instructed to give exhibitors the benefit of any reasonable doubt. I think if they had been so instructed before the last show we should not have seen the little green book which has created such a flutter among the trumpets and the cups.—DIANTHUS.

Mealy bug on Vines.—The worries and disappointments attendant on the culture of the Grape Vine when there is this loathsome pest in possession can scarcely be described in words, verbal or written, and therefore hosts of your readers who are victims will peruse Mr. Wythes's notes (page 53) with more than passing interest. As he very correctly says, there are various means devised for their extermination, and it might also be said that the uncertainty of results are almost equally varied. Very few, according to my experience and observation, lay claim to having survived the ordeal of annihilating an established stock of mealy bug, but I am equally emphatic on the possibility of complete riddance, providing the necessary and persistent measures are rigidly practised. It is not difficult to point to instances where the winter dressings, liming of walls and other attendant details are zealously practised year by year, and still there remains a stock of mealy bug to impose their alien infection, and each season the hope is raised in the minds of such gardeners that actual eradication is assured. There was a time when the whole of our Vine stock was more or less infested, and for several years war was waged against the pests without actual result; but at the present moment we are in the enviable position of having overcome their claim of priority, both in regard to Vines and plants also. It is, I find, absolutely futile to trust to winter dressings alone. Our practice was to follow up the winter series by a spring and summer course; and though it may appear to many readers beyond the bounds of possibility to devote this time in busy seasons, yet in practice it does not involve so much sacrifice as it appears to claim. Petroleum, though so valuable as a general insecticide, gives rise to a forbidding thought when the winter dressing of Vines is in season. We have witnessed so many casualties following the use of this fluid on Vines that the most persuasive testimony in its favour would not change convictions. Gas tar, which Mr. Wythes claims to be equally offensive, was our chief winter remedy, using only sufficient to give colour to the clay and water paint. We have not found that this injured the Vines or the buds, but it is safe to err on the minimum use of this ammoniacal liquid. Wires, eyelets and all ironwork can be advantageously painted with pure petroleum, taking, of course, the utmost care that none touches the Vine rods. Methylated spirit could be employed perhaps with more safety. This can be used on the Vines themselves without risk, and in summer-time is a perfect remedy. A feather or camel-hair brush charged with the spirit will instantly "melt" the mealy bug, and herein lies the most potent factor in effecting a clearance. Methylated spirit pressed into weekly service on plants will have the same magical efficiency, and that, too, without that fear of injury which is attendant on the use of raw petroleum as a feather "dip." Soluble paraffin becomes a valued every-day remedy for plant syringing or dipping, used in proper proportions, prepared as Mr. Wythes advises, or, better still, purchased from merchant sundriesmen who make it a prized speciality. I have no proof of the efficiency of nicotine insecticides for mealy bug; but for other insects, such as thrip and red spider, black or green fly it is unchallenged, and I am hopeful that scale will yield to its destroying influence. I agree with Mr. Wythes that hydrocyanic gas requires further experiments by the expert.—W. STRUGNELL.

PHORMIUM TENAX IN A NEW ZEALAND GARDEN.

Phormium tenax in New Zealand.—I am sending you a photograph of Phormium tenax growing in its native land, which I hope will be of interest to other readers of THE GARDEN. I seldom photograph anything except trees and flowers, but I am only a beginner. I look with longing eyes at the schedule of your flower show and wish I could send something to it. —(Mrs.) E. T. IZARD, *Christchurch, New Zealand.*

New Potatoes at Christmas.—Having read the article by C. H. Clissold, I should like to be a little further instructed as to his method of obtaining new Potatoes at Christmas. What is meant by hardening them off? and is the Melon frame to be heated with pipes or manure? I should like to know what temperature the frame should be throughout their growth.—H. WALTERS.

THE KITCHEN GARDEN.

GARDEN PEAS.

FEW vegetables are more highly esteemed during the summer months than Peas, and certainly nothing pays better for good cultivation. It should be the aim of everyone with a kitchen garden of any dimensions to prolong the season as far as possible; and with the great improvements that have been effected during recent years, especially in relation to early and late varieties, there is no reason why these may not be had from the beginning of June until November in many localities. Not only have varieties suitable both for early and late production been raised, but, what is of the first importance, these possess a quality, generally speaking, as well as an appearance, far in advance of those cultivated, say, twenty or thirty years ago.

PREPARATION OF THE GROUND.

As the Pea roots deeply it is important that the land be well cultivated and enriched with good manure. The ground should be trenched during winter or early spring to a depth of at least from 2 feet to 3 feet, and left rough for the weather to penetrate and pulverise the surface, so that when the time arrives for either sowing the seed or transplanting from boxes after being raised under glass a fine tilth is assured. Where the land is at all wanting in lime, a good sprinkling should be strewn over the surface immediately after the trenching is completed, and the same of soot and wood-ashes. For midseason and late varieties the system of preparing trenches practised by many is to be highly commended. This I have adopted and advised for many years. There is no better time than the month of March for opening these and preparing the same. First of all, the surface should be forked over to the depth of about 6 inches, after which the trenches should be taken out to a good depth, much in the same way as for Celery, the bottom being deeply forked up and at least 1 foot of good manure put in, for choice that from the farmyard which has been stacked in a heap and partly rotted. The soil excavated should be allowed to remain until the time arrives for putting in the seed, and the distance between the rows must, to a great extent, depend on circumstances, both as to the varieties selected and the room at command. Here let me point out that one had far better err on the side of allowing too much rather than too little space between the rows; indeed, I much prefer, whenever possible, especially for midseason and late varieties, to

allow sufficient room between the rows to grow some other crop, such as three or four rows of Cauliflowers or other vegetables of the Brassica type. By so doing I have proved beyond doubt that the crops are much heavier and the plants will continue to bear for a much longer period. Peas ought never to be grown on the same site two years in succession, and it is better still if an interval of two years can be allowed.

SOWING THE SEED.

I have always advocated and practised raising all the early and second early varieties in boxes under glass and, after they are about 3 inches in height and the plants are well hardened, putting them out on the prepared ground during favourable weather, staking and netting them at the same time. This to many may appear a waste of time, but it is really not so; success is much better assured. The seeds germinate much better in a more genial temperature and a warmer soil, they are more under command as regards vermin which attack them, and nothing transplants better when done at the right moment than the Pea. Generally speaking, more failures are due to overcrowding than to any other cause, and it is safe to say that in many cases at least from six to eight plants occupy the space where two would suffice; the result is a weakened and impoverished growth, and the supply is short. The stronger and taller the variety, naturally, the more space should be given. For instance, such varieties as Quite Content, Hercules, Alderman and Centenary should be allowed 8 inches to 10 inches from plant to plant. When sowing in the open ground, sow the seed as thick again as the plants are intended to remain, and thin the seedlings to the required distance when these are safely above ground. It is essential in nearly all cases to take means either to destroy or trap vermin, such as rats or mice, immediately the seed is sown, and it is often necessary to protect against many birds, both before and immediately after germinating, nothing being better than ordinary Pea-guards for this purpose.

STAKING.

There have been many inventions for supporting the growth, but I know of nothing better than the old method of good brush Pea-sticks, Hazel for choice. These should, if possible, be new each year, be well sharpened and got in readiness during inclement weather. Insert them firmly, straight and in a workmanlike manner, always taking care to place them as near the plants at the bottom as possible. Use a few small twigs placed between to conduct them to the larger stakes.

THE EARLY SPRING SNOWFLAKE, LEUCOJUM VERNUM VAGNERI (CARPATICUM) IN A SCOTTISH GARDEN.

MULCHING AND WATERING.

During drought the ground should be well mulched with long litter and copious supplies of liquid manure and clear water be given. The tops will be much benefited if syringed during the evenings after hot days. Late Peas are frequently attacked by mildew, but this is generally due to overcrowding and insufficient moisture at the roots.

VARIETIES.

The names of these are almost legion. Many could only be distinguished by the names attached. It is fair to say that though one Pea may do well in one locality it is anything but satisfactory in another; but, at the same time, there are standard varieties which seldom fail. Those which I have found among the best are enumerated. Early varieties: Among the dwarf sorts I favour American Wonder and Daisy, both now fairly old, but extremely good. Varieties of medium height, and which I much prefer to the dwarfer sorts, are Early Giant, Early Morn and Edwin Beckett; each is a prolific bearer, of good constitution and of the very highest quality. To follow these Improved Duke of Albany is hard to beat for any purpose. For midseason Alderman and Quite Content are perhaps the two finest Peas yet raised, either for exhibition or general purposes. Essex Wonder is a grand new Pea raised by that enthusiastic amateur, Mr. G. Hobday of Romford; it only requires to be better known to make it a general favourite. Hercules is a new and distinct Pea of which I think very highly; Centenary, too, is a good one. For late supplies the Gladstone, Autocrat, Masterpiece and Michaelmas are all worthy of a place; but the first named, in my opinion, lacks quality, though fine in appearance.

EDWIN BECKETT.

Aldenham House Gardens, Elstree.

THE FLOWER GARDEN.

SWEET PEA CHAT.

PLANTS IN POTS.—As the seedlings show freely through the surface of the soil in the pots it will be imperative to give them more than usually careful attention, for this is one of the most critical periods in their life-history. The roots will be fine, tender and not very abundant, and they will have, comparatively, a large bulk of soil in which to work. This is as it should be; but unless the grower exercises the utmost care he may get that soil too wet, with the result that the roots will rot and the plant suffer a most severe check. When the pots are full of roots watering is far easier, as moisture is constantly being drawn from the soil; but up to that point water should only be given after each pot has been separately tested to make sure whether liquid supplies are really required or not. Let the seedlings have full light and as much fresh air as the weather will permit; dry cold will not hurt them, but frosts following damp may cause some trouble. It may be well to remind the inexperienced grower that the varieties with light-coloured seeds demand far more care in watering in the earliest stages than the others.

Outdoor Sowing.—Notwithstanding the fact that many hundreds of thousands of seeds are now sown in pots and boxes in the autumn and the spring, there still remain vast numbers of growers who would not think of adopting such a system, and who still pin their faith upon March sowing in the open garden where the plants are to flower. The reason many people do this is that they affirm that it is impossible to transplant without giving the plants a more or less severe check; but, personally, I do not think there is anything at all in this, provided that proper care is taken in preparing the youngsters for putting out and in the actual process of setting. However, the outdoor sower is and always will be with us, and he achieves equally as gratifying results as his brother enthusiast who sows under glass.

It is, of course, assumed that the soil was prepared thoroughly some time back in accordance with the ideas of the grower or the instructions which were given previously. In either case it will be necessary, just prior to the sowing, to fork over the top 8 inches of soil and to break it down into as fine and friable a condition as possible. The next thing will be to firm it and cut out the trenches or drills. In no circumstances must these be cut triangularly with the corner of a draw hoe; flat-bottomed drills are essential to the greatest success, and the bases must always be made firm and level. If the plants are to be grown in single lines, the trench should be about 5 inches wide and 2 inches or 3 inches deep, while if they are to be in double lines, the width should be 14 inches and the depth the same as before. In the former event the seeds will be set down the middle of the drill, and in the latter along each side about 1 inch away from the edge, so as to leave 10 inches or 12 inches between the plants at the base; this can be slightly increased by placing the seeds triangularly and thinning out so that they still retain this formation. In this system they secure more air as well as space.

The distance of setting the seeds must depend upon circumstances. Where mice are particularly troublesome, allowance must be made for losses, which, however, can be substantially reduced by damping the seeds and shaking them up in a bag containing dry red lead before sowing. Again, where birds are a serious nuisance and protection is difficult or impossible, the seed should be sown rather thicker, so that the feathered visitors may take their toll and still leave sufficient for a perfect row of plants. Generally speaking, about 2 inches asunder will

make all things safe. The seeds should be covered with fine soil to a depth of at least 1 inch. The precise time of sowing must necessarily depend upon the weather and the condition of the soil; but about the end of the third week of March suits the South of England, and two or three weeks later the Midlands and the North. These should be taken as approximate times, and each grower must finally decide for himself. SPENCER.

THE WHITE COSMOS BIPINNATUS.

THIS is one of the most handsome of our half-hardy annuals, but unfortunately it has one drawback, viz., that it does not commence to flower until well into the autumn. This may to some extent be obviated by sowing the seeds under glass in February or early in March, putting out the plants in their permanent quarters when all danger of frost is over. The plants usually attain a height of 6 feet, their finely-cut foliage being of an ornamental character. In addition to the tall-growing type there is now a dwarf form obtainable, which has dull mauve-coloured flowers. This grows about 3 feet high and flowers rather earlier than the type.

A VASE OF WHITE-FLOWERED COSMOS BIPINNATUS.

VAGNER'S SPRING SNOWFLAKE.

(LEUCOJUM VERNUM VAGNERI.)

SPRING SNOWFLAKES are among the most delightful flowers of the early season, and their increased cultivation would tend greatly to add to the pleasures of the garden at that period of the year. The purity of the white ground colour of the blossoms, which is of satin-like lustre, is heightened by the contrast afforded by the deep green or yellow spots with which the exterior of the segments is tipped; and the graceful poise of the flowers on the stout, yet proportionate, stems, together with their elegant formation, will cause these Snowflakes to appeal to all admirers of the hardy flowers of spring.

Near allies of the Snowdrops and, like them, belonging to the impressive Natural Order of the Amaryllideæ, one which comprises so many fine plants, the Snowflakes are even more beautiful than the "harbinger of the infant year" which welcomes the earliest days of the season. The variety of Leucojum vernum which is figured in the illustration on the previous page is one of the most precious of the genus and one which deserves to be widely cultivated. It is among the earliest of flowers, often opening in January, and the illustration shows a group taken early in February last, although all the blooms were not open.

This Snowflake is one of the finest of all, and is distinguished from the other Spring Snowflakes by its smaller stature, its earliness, the large size of its blooms and the frequency with which it gives two blossoms on a stem. The last-named feature is not invariably present, but the greater number of strong bulbs usually give the twin flowers. To add to its worth, Vagner's Spring Snowflake shares in a marked degree the virtue of affording us a delicious Violet-like fragrance when in bloom. The leaves are handsome and deep green, and the stem, though stout, is in harmony with the grace and elegance of the flowers themselves.

Occasionally this Snowflake is to be found in nurseries and gardens under the name of L. vernum carpaticum; but, according to Mr. J. G. Baker in his "Handbook of the Amaryllideæ," the latter is the name of the smaller Spring Snowflake, which has yellow instead of green spots and generally gives one flower to a stem. This should be observed by purchasers of the Snowflakes, as Vagner's variety is earlier than any other form. The planting of these Snowflakes, which may be done in any good garden soil, is best effected in early autumn, the bulbs being set with the crowns from 3 inches to 6 inches deep.

Sunnymead, Dumfries. S. ARNOTT.

FRENCH AND AFRICAN MARIGOLDS.

(TAGETES PATULA AND T. ERECTA.)

THE Marigolds have long held a place in popular estimation, and have come to be regarded as indispensable for summer and autumn decorations in the open air. Apart from the fact that they are easily raised from seeds, and require only a few simple details in their after culture, they have an additional value by reason of their long-continued season of flowering, their profuseness and good colour. In this latter respect, indeed, these plants may be regarded as unique, and long after many of the bedding plants have ceased their flowering, these half-hardy annuals may be seen affording stretches of colour and beauty in the garden. It is for these reasons that I unconditionally recommend them to readers of THE GARDEN.

The Marigolds with which we are chiefly concerned to-day are the African and the French. Botanically, the Marigolds are recognised by the family name Tagetes, T. erecta being that known as the African Marigold, and T. patula, which is known as the French Marigold. In each case there are many distinct varieties. Also well known to gardeners are the Mexican Marigolds, T. lucida, and that small growing species or its variety, T. signata pumila, which has been in the past used in bedding arrangements either in a flowering or a non-flowering state. The African varieties produce large, round-headed blossoms of yellow, lemon or orange on plants of tall—*i.e.*, 2½ feet high—erect habit, hence they are distinctly effective in the garden when rightly disposed, and whether seen alone or in conjunction with other plants, they invariably command attention.

The other section, *i.e.*, the French, embraces both single and double and self and striped or blotched flowers, and the plants vary in height from 6 inches to 2 feet, the dwarfer forms, such as Legion of Honour, being admirably adapted for bedding purposes where free-flowering plants are mostly in request. Indeed, there are many varieties in this latter section which as bedding plants alone, or for grouping in positions of much warmth, are very desirable. At the same time, I cannot too strongly emphasise the fact that, while these Marigolds appear to delight in stony ground or very hot situations or seasons, they invariably respond to a more liberal condition of soil or of treatment by providing a greater galaxy, it may be, of much more handsome flowers. Therefore, those readers who would like to grow these plants for exhibition purposes should remember that they respond to a liberal fare and to a sunny position. With respect to their cultivation, the plants may be raised in the greenhouse or on a mild hot-bed when required for early flowering, or by sowing the seeds in the open ground when all fear of spring frosts is gone. What amount of success may be in either case achieved will depend entirely upon the way the work is done, the condition of the soil, and other things. The Marigold, however, so readily submits to transplanting from boxes or pans, and suffers so little therefrom, that I am disposed to recommend it for general adoption, and, of course, seedlings raised and transplanted before being finally transferred to the open ground, run no risk whatever from overcrowding. Later in the year the seeds may be thinly sown in boxes of sandy soil in the open or by merely covering them with a sheet of glass, and such as these will afford a good succession to the first batch.

It is important to sow the seeds quite thinly and to cover them with not more than a quarter of an inch of very fine and sandy soil, the latter to be of comparative dryness. As soon as the seedlings are well in the rough leaf they may be

transplanted to other boxes, and in these, given the shelter of a frame or light, they will be quite safe till bedding-out time comes.

Seeds may be sown at any time between February and May for purposes of bedding or for late flowering, while if grown from the exhibition standpoint the first-named month would be best. In any case the seed boxes should never be subjected to strong heat. A temperature of 45° is sufficient and capable of producing that steady growth which is, after all, but the forerunner of so much success. When planting in the border it should be remembered that we get spring frosts quite late, and no gain will have to be recorded if the plants are put out before the end of May, having been previously thoroughly hardened off. All the tall-growing types or varieties should be given 1 foot or 18 inches of room between each plant; the smaller-growing French varieties will do quite well at from 9 inches to 1 foot apart, and those of miniature growth about one-half of this latter distance. E. H. JENKINS.

ROSE GARDEN.

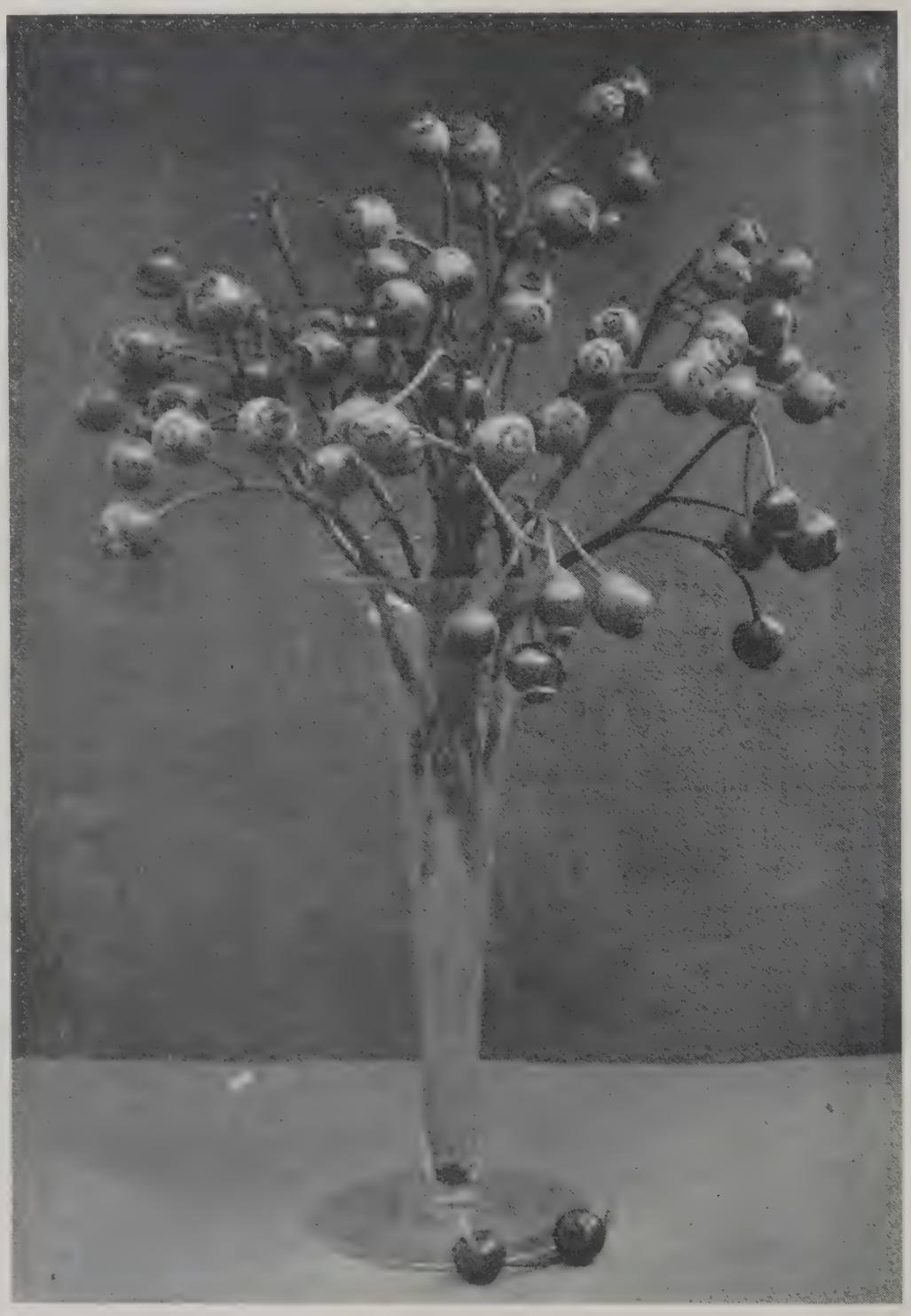
PRUNING ROSES.

OFTEN this most important part in Rose culture is carried out in too formal a manner. No hard-and-fast rule can be followed; and this becomes even more the case now that we are intermixing the sections and classes so much by hybridisation. Sometimes one sees the knife used in such a ruthless way that mutilation would seem a more fitting word than pruning, and a great deal of disappointment results. To those with a little experience, it seems almost incredible that so much abuse of the knife or sécateur should still be evident. We frequently see the long shoots of our climbers and others of extra vigorous growth cut back so hard that scarcely a flower results during the ensuing season. Instead of realising the wealth of blossom already stored up, we force the plant to make more long and comparatively flowerless shoots. Perhaps one of the safest rules we can follow is to cut our Roses hard if of weak growth, and merely thin out, and so allow of more light and air among the wood of very vigorous sorts. Generally speaking, these long growths of climbers produce flowers from all well-matured eyes, and these should be left as much as possible according to the space available. The chief art in pruning very strong growers, such as the wichuraianas, Evergreen, climbing Teas and Noisettes, lies in thinning out the weakest shoots at this time of year and removing the others during late summer, after the main crop of bloom has been secured. This will thin out the plants, and at the same time encourage more of the most serviceable growth to form for the ensuing season's display. In almost all cases of strong-growing sorts I would advise this thinning out, and do not fear to use the knife freely.

When we come to those of average growth, no matter of which class or section, from 4 inches to 9 inches of last year's growth may be left Mlle. Gabriel Luizet, Margaret Dickson and others used as pegged-down Roses may have almost the whole of their maiden shoots left, merely thinning out as much of the old wood as can be spared. This also applies to such Teas and Noisettes as Gloire de Dijon, William Allen Richardson and Reine Marie Henriette, only these are not so much used for pegging down. The maiden wood of the previous season is always the most valuable.

Varieties of short and sturdy growth, such as Prince de Bulgarie, Marjorie and Baroness Rothschild, may be cut back to three or four eyes of last year's wood, not fearing to cut out very freely from the centre of the plant. Nor need one fear to cut so as to get a fairly good-shaped plant when dealing with this class. On the other hand, it is folly to cut away the best sucker-like growths of Perle des Jardins, Comtesse de Nadaillac and a few more that so often produce their best shoots from the base and in a more or less one-sided manner. These are generally rather soft or sappy, and may be cut back to the first sound eye or bud.

More often than not Roses are pruned too early. A rapid and unchecked growth is best. Early growths get frost-nipped, or at any rate much crippled by cold nights, and then insects and other enemies gain the upper hand. Our own practice is to prune the last week in March or early in April, and we do not feel alarmed because the end or terminal eyes of our Roses are sometimes well into leaf. I prefer the loss of a little sap to premature growth of the eyes one thought signified bloom. A little consideration as to why one is pruning is useful. Do you want a few flowers of extra quality or a quantity of medium merit? The harder you prune, the less flowers; but these are generally of a better quality. Finally, never fail to get rid of as much of the old, bark-bound and sere wood as you can. Most Roses can be cut much harder in this respect than is generally practised. A. P.



HEPS OF ROSE UNA GROWN IN MESSRS. R. VEITCH AND SONS NURSERY AT EXETER.

FRUITS OF ROSE UNA.

SEVERAL weeks ago we received a splendid collection of hardy Heaths and other winter-flowering subjects from Messrs. Robert Veitch and Son, Royal Nurseries, Exeter, and among them was a beautiful bunch of fruits of the well-known Rose Una. In colour these were a superb orange scarlet, and they would be of considerable value for winter decoration. We have now much pleasure in reproducing a photograph of these fruits which we had taken, as we think that our available plants for winter decoration are far too few, and any that possess this character should be made as widely known as possible.

COLOURED PLATE.

PLATE 1369.

CHRYSANTHEMUMS TO FLOWER IN NOVEMBER FROM SEED.

THE culture of Chrysanthemums from seed is as simple as that of Primulas or Asters, and the variety and delicate charm of the seedlings far surpass the formal plants of years ago. Seed should be sown in February or March, using a compost consisting of two parts leaf-soil to one part of loam, and the pots or pans placed in a temperature of from 65° to 70°. As soon as seedlings appear they should be moved to a somewhat lower temperature of about 55° to 60°. When the young plants are large enough to handle, prick them off into 4-inch pots, placing five or six seedlings round the edge of each pot and using a little more loam in the soil.

When the plants have made five or six leaves, place them singly in 3-inch pots, keeping them in the same temperature, and when nicely rooted, if thought desirable, they may be stopped once. About June shift them into 6-inch pots, using a compost of half leaf-soil and half loam, with some coarse silver and. Ten days later place them out of doors, standing the pots in ashes. Towards the end of July move into 9½-inch pots (for flowering), using soil of the same composition as before, or perhaps a little coarser. Keep them standing on ashes or boards, if possible at the north side of a hedge or house. When thoroughly rooted a little manure water may be given once a week.

In October stand the plants in a cool house, and in the first week of November move them

into the house in which they are intended to flower, keeping the temperature from 55° to 60°.

If required for blooming in the open, prick the seedlings off as soon as they will bear handling, and in May have them planted out in the position in which they are required to flower, giving a little protection at first. They will be found to yield a profusion of blooms, which will prove invaluable for decorative purposes throughout the autumn months. From seed sown in the open ground, even as late as April, we have known fine plants to flower in the November following.

The accompanying coloured plate represents a house of these seedling Chrysanthemums in Messrs. Sutton and Sons' nurseries, and is reproduced from a photograph in natural colours supplied by them. The plants flowered within nine months of sowing the seed.

FRUIT GARDEN.

THE MELON AND ITS CULTURE.

THIS fruit can be successfully grown in any sort of glass house or pit, provided it is well heated and that the plants can have abundance of light and be near the glass. Some of the best Melons I have ever seen, as well as some of the heaviest crops, were grown in small, narrow pits exactly like ordinary garden frames, raised on walls sufficiently high for a man to work and walk in comfortably. The roof-lights are movable the same as an ordinary garden frame, the requisite ventilation being provided by tilting the lights. Three 4-inch hot-water pipes will provide sufficient top-heat, and a bed of fermenting material makes excellent provision for a genial bottom-heat for months. These pits can be built very cheaply and of any length and width desired. A convenient size is the following: Back wall, 7 feet high; front wall, 5 feet; width, 7 feet. A wall 3 feet high should be built inside, 2 feet from the front wall, to hold the fermenting material and a border of soil for the plants to grow in.

The best soil in which to grow them is turf cut 4 inches thick from an old pasture. It will be better if it is of a rather marly or heavy loamy texture. The grass should be mown off close before the turf is cut, and in preparing for planting cut the turves with the spade into pieces the size of a cricket ball, add a quart of bone-dust to each barrow-load of soil, mix together and keep in a dry place until wanted. After the fermenting material has been formed into a bed in the pit or house for about a week the dangerous foul gases will have escaped, and the soil for the border may then be placed on the manure. The way to do this is to place two turves side by side the whole length and down the centre of the manure-bed, grass side downwards, ramming them down firmly with a wooden rammer. On the top of the turves, in the middle, place a ridge of the prepared soil 15 inches wide at the base and 10 inches high at the apex, allowing it to taper gradually. The soil in another week will have been warmed through and be in good condition for plants raised in pots.

The simplest and best way to raise the plants at this time of the year is to sow the seeds half an inch deep in the border, two seeds together, at distances apart of 20 inches. This may be done the second day after the soil has been introduced. Why it is recommended that two seeds should be sown is because one might not germinate or an accident might happen, thereby delaying the progress of the crop. If all the seeds grow, one plant at each station only is wanted, and the duplicate must be removed.

The young plants will grow very quickly when once well started and will require daily attention. The main single stem should be allowed to grow without stopping until it is 3 feet long, and secured to the trellis (fixed under the glass roof and 9 inches from it) with matting, being careful not to tie the young shoots too tightly. When the main shoots have attained this length they should be stopped. (This is a term used for pinching off the top of the shoot in order to arrest its progress upwards for the moment.) In the meantime side shoots, commonly called laterals, will have grown out of this main stem. It is on these side shoots the fruits will be borne. After they have formed from three to four leaves, a female flower with an embryo fruit will usually have been formed, and when such is the case the shoot must be stopped after it has formed one more leaf above that by the side of which the flower is formed. It sometimes happens that these side shoots are barren, not showing female flowers at all. The best way of converting them into fruitfulness is to stop them at the fourth leaf like the others, the probability being that the next growth after stopping will produce fruit.

In order to secure a full crop of at least three or four fruits to a plant, it is absolutely necessary to wait until one can secure these three or four fruit-blossoms of the same age on the one plant, each to be fertilised by the male pollen at the same time, when they will all grow and swell away together, resulting in a fine, heavy crop. On the other hand, if one blossom is fertilised to-day and another a week hence the result will be a poor crop of one or two fruits only to a plant. In speaking of the border of soil in which the plants grow, I ought to have stated that it should be rammed perfectly hard after the seed had been sown and while the soil is in a dry condition.

After a sufficient number of fruits have been set to secure a good crop, the chief attention the plants require will be thinning of the young growths, and the way to do this is by stopping each new shoot as it is formed at the third leaf. With the multiplication of these shoots the time comes when it is necessary that a general thinning of the shoots and foliage must take place, in order that the plant's vigour and strength may be directed more to the swelling of the fruit than to the development of the foliage. This general thinning is effected by cutting the end of each side branch back to within one leaf of where it was stopped the second time in the first instance. This process could be demonstrated in a moment on the living plant, but it is rather difficult to make clear in writing.

DWARF FRENCH MARIGOLD (TAGETES PATULA NANA).

While the plants are in active growth and swelling their fruit freely they must be liberally supplied with water, weak manure being applied alternately with clean water until the fruit has grown to its full size, when clean water only should be given, and that in less volume than before, or there is danger of the fruit splitting. As the fruit shows signs of ripeness, less water still must be applied, but the soil should not be allowed to become dust dry even at this time. In watering particular care must be taken not to wet the stems of the plants, and the same precaution must be taken in syringing, or canker and rot of the stems will take place, jeopardising the safety of the crop. The foliage of the plants should be copiously syringed twice a day on warm days, but not so freely in dull, cold weather—in the morning about 8 a.m. and in the afternoon about 3.30 p.m., closing the house up with a moist sun temperature of from 80° to 84° Fahr. Generally speaking, a minimum temperature of 65° at night, and a maximum of 75° by day, without sun-heat, should be maintained. In sunny weather little or no fire-heat is required in the daytime, but at night the necessary high temperature must be kept up by its aid.

Supporting the fruits is best done by placing small nets under them and fastening them to the trellis. The ripening process must be carefully watched and the fruit cut some days before it is quite ripe, preserving the stalks intact for the length of 3 inches. Among the green-fleshed varieties I consider Royal Jubilee to be one of the best. Among the white-fleshed varieties there are few better than Frogmore Orange and Hero of Lockinge. Of the red-fleshed sorts Blenheim Orange is still one of the best. Syon House and Frogmore Scarlet are both excellent.

Owen Thomas.

GARDENING FOR BEGINNERS.

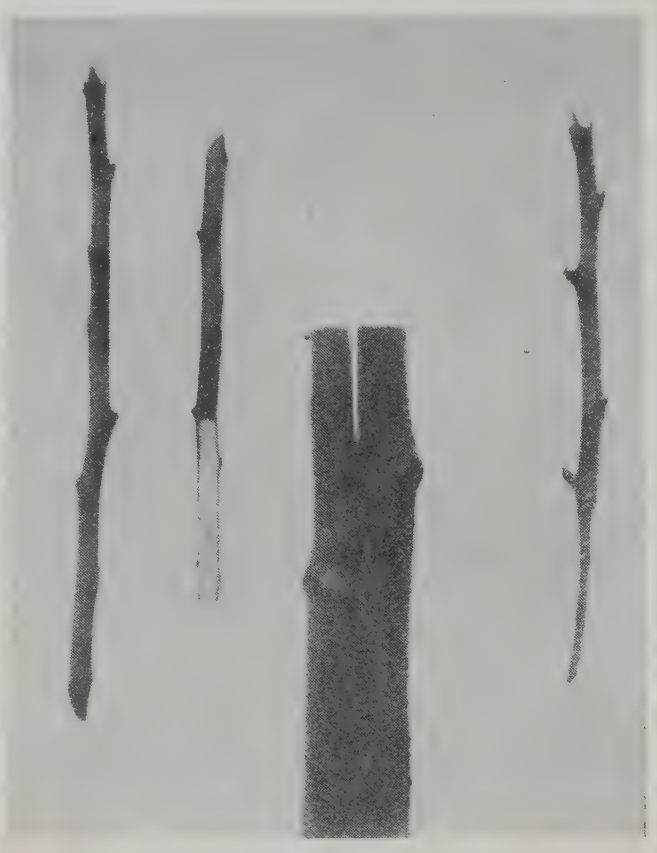
GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—The exceedingly frosty and snowy weather experienced recently has kept work at a standstill in all outdoor departments, and consequently there is much in the way of dividing and replanting still to be done. Growth of many herbaceous plants is now active, and replanting must not be further delayed. The sowing of Sweet Peas in the open must also be pushed on, especially if early flowers are desired. Young plants in pots will need growing on as sturdy as possible, and with this end in view keep them near the glass and ventilate freely whenever possible. Bulbs such as Tulips, Hyacinths and Daffodils that are showing well up above the soil will be much benefited if the ground between them is lightly stirred with a Dutch hoe, but the greatest care must be exercised that no soil gets into the centres of the plants, else considerable damage will be done. If not already attended to some stakes about 1 foot long and rather thicker than a lead pencil should be prepared for the Hyacinths; they should be painted a nice quiet shade of green. The flowers are sure to need these supports in a few weeks' time.

Vegetable Garden.—A good-sized sowing of an early wrinkled Pea may be made now, and considering the past weather it is very probable that the crop from these will be ready quite as soon as from those sown earlier. Sow moderately thickly and not more than 1 inch deep. Autumn-planted Cabbages will now be making new growth, and this will be greatly facilitated by frequent hoeings and light applications of nitrate of soda or sulphate of ammonia, a teaspoonful of either being sufficient for four plants. It should be finely crushed and sprinkled round, not on, the plants before hoeing, the latter operation working it into the soil. The same remarks apply with equal force to Lettuces sown or planted last autumn. A good sowing of Carrots should be made if not already done, following on the lines advised in a recent calendar. If wireworms are suspected treat the soil with Kilogrub; last year I used this with complete success, not a root being injured, although grown in soil where the pest had previously given considerable trouble. Sow Radishes, Lettuces and Onions, if not already done. Of the first-named choose one of the many excellent stump-rooted varieties that are now on the market and resemble the old French Breakfast in every respect except colour. A Cabbage Lettuce should be selected at this early season, a superb all-round variety being Carter's Holborn Standard. This has a large, solid, crisp heart and beats many of the Cos varieties for quality. Celery for the late crop may now be sown in shallow boxes and placed in slight warmth. I have raised excellent plants by sowing in a warm situation outdoors, but this procedure is rather risky. If it must be adopted tread the soil firm after sowing the same as adopted for Onion beds.

Fruit Garden.—Strawberry plants will now or shortly be pushing new leaves from their centres, and all weeds should be hoed up and raked off, so as to make the beds as clean and tidy as possible. The plants will be benefited by this stirring of the soil, but do not let the hoe go within a few inches of the crown of the plant, else many surface and valuable roots will be destroyed. I prefer to leave the mulching until early in April, using the rather long strawy manure for the purpose. If for any reason new beds were not planted, the work may be done now, but a crop of fruit must not be expected from the plants this summer. Raspberries, which should have been pruned and tied last autumn, may be given a good mulching of partially decayed farmyard manure, placing this along each side of the row or round the clump about 4 inches thick. Where this cannot be procured, Wakeley's Patent Hop Manure makes an excellent substitute, as, unlike ordinary artificial manures, this is rich in humus.

Greenhouse and Frames.—As the sun is now becoming more powerful the plants growing in



1.—THE FIRST ILLUSTRATION ON THE LEFT REPRESENTS AN UNPREPARED SCION, THE SECOND A SCION PARTIALLY PREPARED, THE LOWER PART BEING CUT 2 INCHES TO 3 INCHES IN A SLANTING DIRECTION. THE ILLUSTRATION ON THE EXTREME RIGHT IS THE SCION PROPERLY PREPARED. THE STOCK, REPRESENTED BY THE STOUT GROWTH, SHOWS THE LONGITUDINAL CUT THROUGH THE BARK INTO WHICH THE SCION IS INSERTED.

greenhouses and frames will need more air and water, but with newly-potted subjects the atmosphere should be kept rather close and humid for a few days until roots have permeated the new soil. Watering, too, in this case must be done very carefully, as roots will not enter new soil that is sodden and, consequently, devoid of air. Seedlings of all descriptions must be pricked off without delay as they become large enough. Generally speaking, boxes or pans some 3 inches deep are the best receptacles for the purpose, and the seedlings should be placed from 2 inches to 3 inches apart each way, according to their habits.

CROWN OR RIND GRAFTING.

LAST week we dealt somewhat fully with whip or tongue grafting, but in the present instance we are showing how crown or rind grafting may be satisfactorily accomplished. A good time to carry out the work in the South of England is during March and April, commencing operations in the middle of the former month and concluding as soon as possible in the latter. Those readers whose gardens are situated in the North had better do their grafting during the first half of April. In the meantime take the earliest opportunity of procuring the necessary scions or grafts, laying them in the soil in a cool border until required. The growths from which the most desirable scions are obtained are healthy shoots of last year's growth of moderate size.

Crown or rind grafting is a capital method of dealing with large trees, as the size of the stock is of little consequence. Seedling trees are more often used as the stock for grafting purposes, but Apple or Pear trees of worthless or inferior varieties may be refurnished with new growths by grafting on them scions of newer and choicer varieties. It is well to remember, however, that young stocks are more often ready for grafting some ten days to a fortnight earlier than old trees. There is a great deal in knowing just when to begin grafting; and that the beginner may be assisted in determining how soon to commence, it is necessary to make frequent observations and not to graft until there is evidence that the sap is flowing freely in the stock. Another point to remember is to cut through or saw off the branches to within 1 foot or thereabouts of the main trunk of the tree before the sap rises, say, as early as possible in the year, or at least some time before the grafting is to be done. Some workers recommend that the stock be cut obliquely, but we fail to see the advantage of this, and invariably make the cut straight through.

Fig. 1 shows the scion and its preparation for grafting, and the way to deal with the stock for a like purpose. Scions that are 6 inches or rather longer after preparation are a very good length. In the preparatory work the scion, as represented on the left of the figure, is cut off at the head in a slanting manner, finishing the cut about half an inch above the uppermost bud. Three or more good buds should be retained on each scion at its upper end, and the lower part should be cut in a slanting direction, 2 inches to 3 inches long and tapering thinly down to the bottom. The second illustration on the left in Fig. 1 gives a good indication how this slanting cut should be made. The finished scion is very clearly depicted on the extreme right of this same figure. The tapering character of the lower part of the scion is clearly defined, and what is of some importance is the shoulder-cut made halfway through the scion to fit the top of the stock when the former is adjusted in position. A sharp budding knife is an essential factor in successfully trimming the grafts, carelessness in this respect jeopardising a successful issue to this important operation. The stout stem of the stock is easily distinguished in this figure. To prepare this for grafting it is necessary to make a longitudinal cut through the bark between 2 inches and 3 inches in length. Preparatory to the insertion of the scion, gently raise the bark on either side of the cut and insert a hard wood wedge, shaped like the scion but of rather less size. Insert the wedge at the top, as nearly as possible in the centre of the cut, taking care that it is pushed down between the wood and the bark to within about half an inch of the bottom of the cut part of the stock. The chief factor of success at this period is to see that the white sap wood of the stock is made to meet that of the scion. The latter should fit well, and the shoulder of the scion already referred to should rest on the top of the stock.

Fig. 2 shows three scions adjusted in position. We would again remind readers that it may be preferable in some instances to graft one, two or three to suit the needs of individual growers, but if the size of the stock permits it is customary to graft more than one scion.

Fig. 3 illustrates a most important piece of work. The scions must be securely tied in position, and this must be done with some care and

intelligence. The material for binding may be either a stout and reliable raffia or string of a nature that will not bruise the bark. The method of tying may be seen at a glance in the accompanying illustration.

The final operation in crown grafting is what is known as claying. A simple covering is made of clay as advised last week. Fig. 4 aptly illustrates the method. It is extremely important that this portion of the work be well done, as the surroundings of the grafts must be rendered quite air-tight. D. B. C.

HOW TO GROW THE FLORIST'S RANUNCULUS.

Old-fashioned, stiff and ugly are only a few of the epithets that have been hurled at the florist's Ranunculus (R. asiaticus) in the past; yet through a most vigorous period, wherein new introductions have been made at a tremendous rate, these flowers have retained a hold on at least a section of the flower-loving public, and signs are not wanting that they are once again creeping into general favour, although their culture seems to be much less understood than it was a decade or two ago. The finest flowers the writer has ever seen were annually grown in the garden of an old cottager in Essex—indeed, so fine were they that details of their culture were solicited and given in that spirit of freedom so characteristic of the true gardener, and for the benefit of others they are appended herewith.

During the winter, before Christmas if possible, the ground was thoroughly broken up two spits deep, and with this was incorporated a heavy dressing of cow-manure which the old fellow had assiduously collected from the roads the previous summer, containing a good percentage of coarse sand, the roads in the district being constructed with gravel and not much frequented by motor-vehicles. This manure was thrown into a heap as collected, and there left till required. The middle of February was the time for a forking over of the surface of the bed, breaking any lumps encountered, so that a fine tilth was ensured ready for planting, which was always done the last week in February if the outside conditions were at all favourable.

Drills were made about 9 inches apart and 3 inches deep, and in the bottom of each a thin layer of sharp road-sand was placed, the tubers next being stood in position about 4 inches asunder with the claws downwards. These next received a heavy sprinkling of sand, and then the natural soil was returned and the surface raked level. During dry weather the beds were thoroughly watered, and as soon as flowering commenced, or rather when the buds were swelling, weekly applications of weak cow-manure were given.

After flowering, and when the leaves had turned quite yellow, the tubers were lifted and stored for the winter in dry soil in a cool shed, the frost being just kept away. Those who have a liking for these old-fashioned flowers might well give the above system of cultivation a trial, as it answers equally as well for the Persian and Turkish varieties as for the French. There are, of course, some most gorgeous colours obtainable in these plants. Owing to the intensely cold weather recently experienced there is still time for planting to be done; indeed, some cultivators prefer waiting until the middle of March before putting in the tubers. In any case planting ought not to be delayed later than the end of March. H.

HOW TO MANAGE A HOT-BED FRAME.

A hot-bed frame is one of the most useful of all appliances in the garden for growing early crops in spring. Such a frame, however, requires very careful management. The heat in the hot-bed must be regular. If the material is wrongly prepared it will heat violently for a short time and then fail, because it has become spent. Now, if inexperienced cultivators of various kinds of plants suitable for raising in a frame make up a bed of this kind, they run several risks, the two greatest of which are scalding the foliage from overheating of the material at first, and of losing seedlings and plants afterwards through the sudden cooling of the bed when the heat is spent. Such unsuitable beds are the result of putting together the littery manure too soon, before it has been sweetened.

The litter must be spread out thinly every day as it is gathered fresh from the stables (never use litter from a large heap which has turned white inside through excessive heating) and be turned over every morning. When a sufficient quantity has been collected, throw it up into one large heap and allow it to remain so for twenty-four hours; then open out the material again and so get rid of the burning gases. If the heap is large it may be treated again in the same way, and afterwards put up to form the bed. There will not be any danger from burning and overheating afterwards, and the temperature of the bed will be comparatively high and regular for a long time.

Leave a small opening at the top of the frame for the escape of steam arising from the bed, and always cover the glass at night with mats to conserve the heat in the frame. Do not tread upon the sides of the hot-bed, as this results in the material being displaced and becoming too wet when rains come; this cools the temperature. Ventilate always on the opposite side of the frame to that from which the wind blows when it is necessary to admit air. Those plants requiring the most heat must be placed in the centre of the frame. Shamrock.

2.—THE STOCK WITH THREE SCIONS ADJUSTED IN POSITION.

3.—THE STOCK AND SCIONS BOUND WITH RAFFIA TO KEEP THEM SECURE.

4.—THE JUNCTION COVERED WITH CLAY TO KEEP THE WHOLE AIR-TIGHT.

THE TOWN GARDEN.

Delphiniums and Slugs.—In sheltered borders the young crowns of Delphiniums are swelling rapidly, and every precaution must be taken to preserve them from the attacks of slugs. These pests have a great partiality for the young leaves and crowns; in many instances I have seen the latter hollowed out as cleanly as though a person had used a knife for the purpose. Of course, when the crowns are so eaten they are, in most cases, quite spoiled. The main crown will not grow freely, but small side ones do, and these are not strong enough to bear satisfactory spikes of flowers. Do not wait for the slugs to eat a number of the plants, but forthwith scatter some very fine dry ashes on the surface of the border, especially on the crowns themselves. The ashes are sharp and slugs cannot crawl over them with freedom, so that the plants remain secure. When about 6 inches of new growth has been made, it is quite safe from slugs, and as the new stems grow quickly not more than one covering of ashes will be necessary.

Calceolarias in Frames. — Bedding-out Calceolarias growing in cool frames will now require attention. Cuttings which were inserted late last autumn have not made many roots up to the present time, but root-action will be rapid from now onwards. It is a good plan to pinch off the point of each young plant at once, then side shoots will grow in due course and the plants become bushy and very strong. The plants will withstand cold weather very well; they are never satisfactory when grown in warm quarters during the winter-time. The hardily grown specimens always give satisfaction. The town gardener may succeed with Calceolarias in winter-time better than with many other kinds of bedding-out subjects. These and Marguerite Daisies ought to be largely propagated in frames in the autumn. People who have not hitherto grown these two useful town plants should make provision for doing so next autumn, and if they watch the pages of The Garden they will find helpful hints bearing on the subject.

The Use of Sweet Leaf-soil. A quantity of nice, sweet leaf-soil ought to be kept in every town garden. More or less must be stored according to requirements. In large gardens a good-sized heap will be necessary, whereas in a small one a peck of leaf-soil may be sufficient. It is very useful for mixing with loam which is intended for seeds and seedlings of annuals, and also for a few pot plants. In clayey borders where herbaceous plants are grown, a handful of leaf-soil placed around the roots of a newly planted specimen will give a decided impetus to the growth of that plant. The leaf-soil acts in the following way: When a plant is lifted, whether from the nursery or the home garden, a number of roots are exposed, and in many instances badly crippled; they do not readily enter the cold, clayey soil of the border, but quickly permeate the leaf-soil, so that there is no serious check to the growth, and as the season advances and the border soil becomes warmer the roots of the new plants enter it freely.

Stakes and Labels.—Do not throw away old stakes nor long labels which have been used in pots and beds. Simply cut off the decaying ends, when both the stakes and the labels will be

useful for smaller plants again. Paint the stakes with green paint, both new and old ones, as they present a much better appearance than those that are not painted. Tie up all stakes in bundles of various lengths and then they will be ready for use when required, which will probably be at a busy time. Thousands of plants are spoiled every year through neglect as regards staking, and where the plants are neatly labelled an added interest is given to them.

BORDER CHRYSANTHEMUMS. — Few border plants are more hardy than these, and as they blossom at a time when flowers for cutting are none too plentiful, it behoves the town gardener to see to the propagation of young stock, or the due division of the old roots. It is a very good plan to lift the old roots at this season, divide them carefully and then place the healthiest shoots in a bed of leaf-soil, loam and sand in a cool frame, or even in such a bed in one corner of the garden. New roots will soon grow, and the cultivator can replant the young specimens.

AVON.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUIT HOUSES.

VINERIES.—Attend carefully to all Vines in later stages of development by timely thinning superfluous shoots and bunches, tying down gradually the laterals and stopping them at two joints above where the bunches show. Be very careful not to pull down the growths too much at one time, especially in sunny weather, when they are more limp, otherwise, during the night following, some of the best and the most promising may snap at the heel. In late houses, Lady Downe's, Alicantes and Appley Towers will soon be on the move, and as soon as growth is visible close the ventilator and begin to syringe the rods twice daily, keeping the night temperature at about 50°. Examine all borders to ascertain whether the roots require water. If dry, give sufficient to thoroughly moisten the whole of the soil in preference to frequent dribbles. Let the water be applied in a tepid state, and make a note of the date and the quantity supplied for reference.

Cold Peach Houses.—The trees in these will now be fast swelling their buds, but growth should not be hurried for the present. It is better to keep them back as much as possible till the danger of severe frost is past. If the borders were well watered, top-dressed and mulched at the time of pruning and dressing the trees, no more water will be necessary till the flowering period is past. All trees should be kept free from green aphis by timely fumigating, either before or after the flowering period, and when the fruits are well formed. At such critical periods it is better to fumigate twice lightly than to run any risk of damaging the future crop by an overdose.

Figs.—When thinning and pruning these, be careful to leave plenty of sturdy, short-jointed fruitful wood, and only shorten back those pieces not required for fruiting this season. When planting the Fig the border should be somewhat restricted and the soil good, but made very firm. A mixture of loam, plenty of old brick mortar, wood-ashes and well-decayed manure used rather sparingly if the loam is full of fibre makes a good compost. Brown Turkey is one of the most reliable varieties, although there are others which fruit well under glass. They must have plenty of room for extension, otherwise the roots must be manipulated at intervals to check exuberant growth. Figs in pots will require well feeding, and should be kept growing in a warm, moist temperature.

Melons.—These raised from seed sown a month ago will be ready to plant out. Let the bottom-heat be about 80°, and the soil firm and rather heavy. Plant on little mounds, and train the leaders singly till they have attained the height of 3 feet to 4 feet, when they may be stopped to furnish fruit-bearing laterals. Keep the temperature at 70° by night, allowing a rise of 10° by day with sun-heat. Syringe early after dinner and keep the plants growing sturdily on.

PLANT HOUSES.

Azalea indica.—These should be well syringed to keep the foliage clean and to encourage the flowers to expand. Those which may have bloomed and need repotting may be at once attended to. Use clean, dry pots, well drained, and a compost of tough, fibrous, sandy peat, a little sandy loam, pieces of charcoal and plenty of grit. Let the repotting be firm, and stand the plants where the heat and moisture are sufficient to encourage root and top growth.

Heaths and Epacrises.—When potting these see that the soil is rammed very firmly, and do not give too large a shift at one time. After the flowering is over and previous to repotting they may be pruned into shape, and afterwards encouraged to make strong, fresh growth to produce good flowers.

Roses.—All plants that are making good growth and showing bloom need careful watching. Fumigate if green fly puts in an appearance. Batches introduced after this date should bloom more freely. A little feeding with liquid manure or some approved patent manure will greatly assist the size of the flowers and the health and strength of the plants generally.

H. MARKHAM.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

MUSHROOM HOUSE.

FOR beds in bearing a temperature of about 55° is ample, and as the manure will have lost most of its warmth, overhead watering must be very carefully done. Succession beds usually go from the time of spawning until produce appears without watering; but should the material become dry, a light sprinkle by means of a syringe or very fine rose is preferable to any other mode, and the water should always be applied at a temperature slightly above that of the house. Another bed may be made up, as in the usual course this will carry on the supply for three months longer, after which house-grown Mushrooms are not satisfactory. Manure from hard-fed horses is best, and this, after having the rougher portions removed, may be thrown into a heap under cover to generate heat, and being turned a few times at intervals until the rank gases are dispersed, may be placed in position and made quite firm; a depth when finished of 15 inches is sufficient. Spawning may follow when the thermometer indicates that the maximum temperature has been attained, but soiling the surface is best deferred for a few days to avoid the possibility of overheating.

HARDY FRUIT.

Peaches and Nectarines that were pruned and had the remaining shoots released from the wall or other support, with the view of retarding the buds, may now have these resecured. A space of about 4 inches between the shoots is ample, and whether shreds or ties are used, care should be taken that these are not tight and are not immediately against a prominent fruit-bud. Fungoid diseases and blistering of the foliage are prevalent evils with the Peach family outside. Bordeaux mixture sprayed upon the trees immediately before and after the flowering period mitigates such attacks very considerably. Protection in some form should be provided for the trees while in bloom. Of improvised methods canvas blinds are the most effective and convenient to apply; but if branches or nets are used, these should be secured beyond the possibility of their getting in contact with the trees in windy weather.

KITCHEN GARDEN DEPARTMENT.

Sowing Seeds.—All kinds of green plants for transplanting may now be sown upon a warm and well-prepared border, covering the seeds with half an inch of soil and making it firm. Birds are often troublesome, and the beds should be securely netted or, previous to sowing, the seeds be damped and rolled in red lead to frustrate their attentions. Successional sowings of Peas, Broad Beans, Parsnips, Onions, Parsley, Radishes and Carrots should be made from time to time; the main crop of the latter, however, is best deferred until the end of the month. Turnips sown now should be afforded the protection of a frame or spare lights to ensure usable roots.

Seakale.—This useful vegetable is not a success in many Northern gardens; but where it succeeds the thongs selected some time ago may now be planted on well-manured and deeply worked ground, in lines about 20 inches apart, keeping the tops just below the surface and covering each set with a handful of coal-ashes should damage from slugs be apprehended. Established plantations may have pots placed over the crowns, and straw, Fern, or fermenting litter and leaves be placed around to exclude light and stimulate growth.

FLOWER GARDEN AND LAWNS.

Flower Beds and Borders unoccupied by plants may now be put in order for the approaching season by having the soil enriched by manuring, or changed to suit the subjects intended to be planted. Any failures among spring-flowering plants should be made good from the reserve garden, and all made firm by treading, after which stirring the surface would prove beneficial.

Lawns and Verges.—Removing or relaying turf is best carried out before the dry, harsh winds of spring set in. Bowling, tennis and similar games played upon greensward often cause this to be unduly worn in places. If fairly level, the work of renovation may be accomplished without much disturbance of the surface by spreading around a quantity of rich, finely sifted soil and raking or brushing the same among the crowns of the grasses and consolidating by rolling afterwards. If from lack of nutriment the refreshing verdure, so much appreciated, is absent, a dressing of bone-meal or superphosphate of lime in quantities of from 2oz. to 4oz. per square yard may now be given, preferably in conjunction with the soil mentioned.

JAMES DAY.
(Gardener to the Earl of Galloway.)
Galloway House, Garlieston, Wigtownshire.

THE COLD WEATHER.

THE unexpected recent heavy and widespread snowfall has come to all who "garden" as an object-lesson. We have in our ordinary operations become rather hidebound in our arrangements as to sowing, cropping, pruning, planting and general garden work; as with us, so with our garden calendars, it is the rule to do this, that or the other because tradition has so prescribed it to be done at particular periods. Prior to the snowfall an eminent member of the Meteorological Society told us there had been in the soil a material fall in temperature, and that, too, at the end of February. Yet had the snowfall not have occurred, the moment frosts had disappeared the work of sowing and planting would have gone on just as usual without that fact as to soil temperature being in the slightest degree regarded. The snow came to check what would have been under the circumstances an unwise practice; but

it left behind a condition of things worse than that which previously existed, as snow-water is admittedly of exceedingly low temperature and very near to the frost line. Need it be said that to commit seeds, Potatoes or roots generally to soil so cold would be to court failure, as the conditions of temperature essential to vegetative existence are necessarily lacking. It does not seem to have occurred, even to the most advanced cultivator, that in such atmospheric conditions as now prevail the soil temperature should be ascertained, not only a few inches, but 12 inches in depth. That would not be difficult to carry out, and the result or test should furnish a good guide as to the times for cropping such soils. The great thing now is to secure for the soil all possible new warmth. If a period of gloom and cloud follows with low temperature, the soil will not be affected; if the sun shines out warmly, if only for a few hours daily, it will rapidly regain warmth, and thus in a few days be restored to its normal March temperature.

If, on the other hand, westerly winds bring soft, genial rains, then, too, the soil would regain warmth; but in the former case, the soil will be enabled more rapidly to absorb sun warmth if loosened or lightly forked over, as the snowfall may have closed the air passages and thus checked atmospheric absorption. The moral of all this is that the gardener, no matter who he may be, must curb his impetuosity and exercise patience. It is a very valuable virtue, and is so far repaid that much more success in garden operations now is likely to follow a policy of waiting for genial soil and atmospheric conditions than would follow impetuous haste. But where there is one or more frames, or a greenhouse, and soil to place in pots has been kept under cover, not only may Sweet Peas, Tomatoes, Cauliflowers, Cabbages, Lettuces, or seeds of various tender flowers, such as Petunia, Verbena and Lobelia, or seeds of hardier things, like Snapdragon, Pentstemon, annual Carnation and Wallflower, be sown, but Potato tubers for planting, set up in shallow boxes, may be exposed to light to sprout early. Dahlia roots may also be brought from their winter quarters and set thickly in shallow boxes with soil about them and be watered, also be induced to break into growth and, if desired, furnish cuttings for propagation.

Where trees, shrubs or Roses are to be planted, provided no heavy rainfalls occur it will help to expose the soil to warmer air all the more quickly if holes for the reception of such plants be opened. When planting can be safely done under more favourable conditions of temperature, it can be done all the more expeditiously, and the change the roots will find on being transferred from cold soil to that which is a few degrees warmer will speedily make them active and be of great benefit to the subjects planted. Thus a policy of patience is the winning one in the end. A. D.

HYACINTHUS AZUREUS.

(Syn. Muscaria).

ONE of the most welcome flowers of the early months of the year, companion for the Crocus, the Snowdrop, the Winter Aconite and other delightful heralds of our earliest springtime, is the turquoise blue flowered Hyacinthus azureus, or, as it is not infrequently known, Muscaria azureum. It often pushes its sweet little pyramids of blue through the ground while frost may still be expected, holding its dainty spikes above the morning rime. Three inches or so in height and turquoise blue in colour, this veritable harbinger of spring may be seen quite early in February forcing its way through the soil. No one to whom I have shown this hardy flower has failed to admire it.

Within touch or shelter of a shrub protecting it from north and east the plant always blooms early, while its rapid increase and simple cultural requirements serve to guarantee its worth or demonstrate its fitness for a much larger sphere of usefulness than at present obtains. Ridiculously cheap by the hundred or thousand, the plant might be advantageously used on banks or sunny slopes where thin grass or elastic sod would admit of its sending forth its tiny spikes with impunity.

To make a brave or even a pretty show the plant should be freely dappled over the turf or spring from a rocky shelf where presently the white or the blue of the Harebell shall come; or, where the alpine house exists, pans of it at flowering time should delight the eye, while assisting to make gay the structure that affords it welcome protection. In the hardy fernery or sheltering glade, or thinly stretching over the grass near woodland walks, there is ample room for this sky blue treasure; and, indeed, there is hardly a spot in the garden where its clustering miniature bells would not be seen to advantage. It is not, of course, suited for association with coarse herbage, above which it could not raise its pigmy heads of flowers, but it may be planted freely in almost any other position. There is a stronger-growing variety called robustum, and though it is but a giant of inches merely, it is quite as hardy as the type. There is nothing fastidious about it, and it should be planted in September or later not more than 2 inches deep, preferably in light and very sandy soils. A 6-inch pan will hold a dozen or more of its not large bulbs and provide its owner with a pretty picture while the majority of things are still asleep.

THE PRETTY LITTLE HYACINTHUS AZUREUS.

Hampton Hill. E. H. Jenkins.

PRIZES FOR READERS. MARCH.

THE SIX MOST POPULAR ORCHIDS AND HOW TO GROW THEM.

A First Prize of FOUR GUINEAS,
A Second Prize of TWO GUINEAS,
A Third Prize of ONE GUINEA,
And a Fourth Prize of HALF-A-GUINEA
are offered for the best essays on the above subject.

The notes (restricted to 1,500 words) must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of The Garden, 20, Tavistock Street, Covent Garden, W.C." The essays must reach this office not later than Wednesday, March 31. Both amateur and professional gardeners may compete, but it is hoped that those who contribute regularly to the pages of The Garden will not do so. The name and address of the competitor must be written upon the MS., and not upon a separate piece of paper. The Editor accepts no responsibility for and cannot undertake to return the MSS. of unsuccessful competitors. The Editor's decision is final.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* The Garden *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* Editor *of* The Garden, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* Publisher. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Gladiolus The Bride (*M. L. St. Aubyn*).—The plant is probably Panax Victoria, but from the small scrap sent we are not certain. The Gladioli appear, in part at least, to be suffering from frost, and others appear to be suffering from a species of fungus, which is as fatal in its results as the frosts. Of this latter we are by no means absolutely sure, by reason of the advanced decay. The large percentage of losses, however, points rather to the frost, and if the pots of bulbs were in the frame during the severe frost at Christmas time, this would account for much. We have known entire batches of thousands to be ruined in this way, although they were covered with a moderate depth of litter.

Foliage plants (*Funkia*). — If you require the plants for summer effect only, the Funkias would do quite well, but being gross-rooting subjects the plants would require a good deal of attention in watering. If, on the other hand, a plant with permanent foliage would be more valued, you could hardly do better than plant Yucca recurvifolia in the tubs, though Megasea cordifolia purpurea would answer admirably. The best of the Funkias are F. Sieboldii, with bold, glaucous foliage, or F. ovata maculata aurea which is very handsome when well grown. These latter would require the most attention of those we have named, but the handsome leaf-growth is worth a good deal. These plants prefer rich soil and plenty of water in summer; the others named prefer a less rich soil and do not require so much root moisture. A good flowering subject, of course, would be the Fuchsia, and if grown in pyramid form would produce a very telling effect. These, however, would require protection in winter.

Water Lilies for pond (*Nymphæa*).—We think you might indulge in some of the free-growing sorts, arranging these at long intervals and interspersing them with others of smaller size. The following are all good: Nymphæa Marliacea carnea, N. M. chromatella and N. M. ignea. These would do for the larger positions. Other good sorts are N. liliacea, N. Laydekeri rosea, N. L. fulva, N. odorata sulphurea, N. o. minor and N. o. alba. N. pygmæa is the smallest of the Water Lilies, and its variety N. p. Helvola is interesting. It is quite possible that N. stellata, the blue Water Lily, would succeed with you; at any rate, it is worthy of a trial. Place a bushel or two of soil ready for each plant, mark the position by a stick and sink the plant on the soil by weighting it down with a stone. March and April are the best times for planting. Your idea for treating the end will do quite well, but

we would prefer the double white Arabis for a climax, with possibly a plant or two of Cotoneaster horizontalis draping the big stones. The Aubrietias, too, are excellent carpeting plants, and so is Campanula muralis. Tufts of Thrift wedged against the sides of the stones would be productive of good effect.

Arranging borders (*Yorkshire*).—There is no need to do away with the central portion, as it assists to break up the formal outline of the borders; a group of the variegated Maize would look well there. Last season you appear to have used too many shades of colour, and an indiscriminate mixture rarely is good. You might for this year try the effect of a white Tufted Pansy for a groundwork, and over this presently plant mauve-coloured Chinese Asters, with occasional plants of the Summer Cypress (Kochia) to relieve the monotony. In the centre, in addition to the Maize you might arrange the Gladioli and carpet the groundwork with deep blue Violas, or by arranging the semicircles alike you might prefer to plant white and mauve-coloured Asters at each of the two opposite ends, using white and blue Violas on the groundwork, and carrying the plants to nearly the edge of the border. In this way you simplify matters and secure an effect which is easy of accomplishment and beautiful withal.

Plants for cut flowers (*Percy*).—With the exception of the Delphiniums, all the plants you name will do in the soil referred to. The above-named can also be made to succeed if you can add road grit or anything likely to lighten the soil. The Delphiniums are not the best of things to last in water, owing to the hollow nature of their stems. Other good plants for your purpose are single and double Pyrethrums, Trollius, Gaillardias, Columbines, Campanulas of the Peach-leaved section, Michaelmas Daisies, Alstrœmerias, perennial Pea, Montbretias, Achillea The Pearl and Flag Irises. All the above are perennials, and succeed quite well in any well-dug and moderately rich garden soil. You might also freely plant the border Pinks in variety. Of annuals you cannot do better than sow Sweet Sultans, Sweet Peas, Chrysanthemum coronarium in variety, Asters, Stocks, Shirley and other Poppies, and others. The perennials could be obtained from any of the hardy plant dealers, and the annuals from any of the seedsmen advertising in THE GARDEN.

Violets diseased (*Violet, Surrey*).—The plants are attacked by the fungus known as Urocystis Violæ, and your only present remedy is to collect and burn all the affected leaves and spray the plants with sulphur in solution or sulphide of potassium at the rate of half an ounce to two gallons of rain-water. Keep the frames freely ventilated and stir the soil about the plants, subsequently giving a dressing of soot. Unfortunately, the disease is likely to occur again, and the plants and frame should be thoroughly cleansed. The better way would be to discard and burn the plants when flowering is over, and obtain a clean stock and treat as above on preventive lines.

Violets going wrong (*W. A. S.*).—The plants are attacked by the Violet fungus (Puccinia Violæ), which is one of the most troublesome and disfiguring as well as destructive pests to contend with. The attack has nothing to do with putting air on the frames, though a confined condition greatly assists the development of the disease. If all your plants are as badly attacked as the leaves you sent, we can only recommend that you collect and burn all the affected leaves at once; indeed, it would be best to burn the plants entirely, discard the soil, and thoroughly cleanse the frame before starting with a fresh lot. In future you might in summer-time spray the plants with sulphide of potassium, half an ounce to a gallon of water, to keep the disease in check.

Selection of inexpensive fancy Pansies (*A. Ingham*).—You must quite understand that in giving a selection of inexpensive fancy Pansies it is not possible to include any of the newer sorts. The varieties in the subjoined list, however, represent those of good quality, and are excellent for most purposes. To grow Pansies well, the ground should be deeply dug and heavily manured at the time, and if the quarters can be prepared at once and the surface soil left in a rough condition, both frost and weather will do it incalculable good in the interval between the digging and the planting. Varieties: Colonel M. R. F. Buchanan, Emmie Bateman, John Picken, Maggie Watson, Mrs. B. Welbourne, John Gillies, Henry Stirling, Mary Philip, Mrs. John Lister, Robert White, Nurse Eaglesome, Sam Craig, W. B. Smellie, William J. Cupples, Archie Milloy, A. D. Lister, Colin Pye, Effie R. Wilson, George Stewart, James Dodds, Lord Roberts, Mrs. A. B. Douglas, Miss Neil and Provost Thomson.

Lathyrus magellanicus (*T. A. Dymes*).—We fear you will have some difficulty in getting the true plant, and if you have tried such firms as Van Houtte of Belgium, M. E. Benary of Germany and Thompson and Morgan of Ipswich without success, we can only suggest that you write to the curator, Royal Gardens, Kew, as by so doing the source of the true plants you saw there in flower might be traced.

TREES AND SHRUBS.

Shrubs for arches and wall (*J. M. S.*).—Climbing Roses suitable for your arches are Crimson Rambler, Philadelphia Rambler, Hiawatha, Helène, Alberic Barbier, Tea Rambler, Electra and Una. Other plants suitable for the position are Aristolochia Sipho, Jasminum nudiflorum, J. officinale, Forsythia suspensa, Wistaria multijuga alba, Clematis Jackmanii, C. lanuginosa, C. Viticella and their respective varieties. For your wall the following plants are suitable: Escallonia macrantha, Ceanothus rigidus, C. veitchianus, Prunus triloba fl.-pl., Chimonanthus fragrans grandiflora, Ribes speciosum, Garrya elliptica (the male form), Cydonia japonica and Cotoneaster angustifolia. Roses William Allen Richardson and Gloire de Dijon are also suitable.

Pines as shelter for exposed garden (*H. C.*).—You cannot do better than stick to Austrian and Scotch Pines for your shelter belt, with Birch and Mountain Ash to relieve them. It is doubtful whether Cedrus Deodara would be a success in the position you name, and it is really better to confine the selection to the trees recommended. A break from the monotony of the Pines can be made by planting a good variety of trees inside your shelter belt.

ROSE GARDEN.

Transplanting four year old Rose bushes (*Roses*).—If the work is carried out early in the autumn, there is no risk in removing such plants; in fact, all Roses should be periodically transplanted if they are found to be growing rather indifferently. We advise you to prune the plants back hard, say, to within 1 foot of the ground, at the time of transplanting, and dip their roots immediately into some thick puddle made by stirring up clayey soil and water. If you are unable to replant at once, heel the plants in the soil under a north wall or hedge, but the sooner they are placed in their permanent positions the better.

Portion of dead Rose shoot for inspection (*R. C. Bailey*).—Judging by the portion of shoot sent, the Rose bush must have been very badly neglected in the past. The brown protuberances are scale insects and constitute one of the worst pests that attack Roses under glass. Cut out and burn all dead portions, then scrub the other wood with one of the many excellent insecticides now on the market, taking care not to injure the buds. You must, in scrubbing, make sure that all the brown scales are removed, and the bush will need careful watching during the summer, as some more of the insects are sure to appear. We have never seen a shoot so badly infested as that you send.

Roses in a town garden (*Rus in Urbe*).—The selection you have planted is on the whole a very good one, the only exception being Marquise de Moustier. This is a very fine Rose for a hot country, but it is too double we fear to open satisfactorily with you. The next time you order we advise you to stipulate that the plants must be all from the open ground. Small pot-grown plants are not suitable for planting where the conditions are to some extent unfavourable. In the case of these pot plants we advise very little pruning this season. Just remove 1 inch or 2 inches from the extreme ends of the shoots. If the growths are somewhat long, give them the support of a small stick. Although you may not obtain very good quality flowers from these plants this season, the growths retained will enable the plants to send out good basal growths, which will probably produce some very fair blooms in autumn. The plants from the open ground may be cut back to within 4 inches to 6 inches of their base this season, and the best time will be about the third week in March. You did well to plant Frau Karl Druschki in the centre of the bed. It would be a good plan to train this as a pillar Rose, securing its growths to a small stake, and in this case it would not be advisable to prune much. The growths may be retained about 2 feet in length this season, and as it sends out long growths tie them loosely to the stake. The Dandy is rather a strong grower, but if it grows in excess of the other sorts and is likely to spoil the evenness of the bed, you could peg down its growths to within about 1 foot of the ground. We hope you will be able to compete at THE GARDEN Flower Show, for it was with the object of encouraging enthusiastic amateurs like yourself that this exhibition was promoted.

Evergreen Roses (*R. H. Allen*).—There are really no true Evergreen Roses, although several retain their foliage in sheltered gardens well beyond Christmas. Some of the best varieties to plant for this object would be Aimée Vibert, Félicité Perpétue, Leopoldine d'Orleans, Aglaia, Jersey Beauty, Gardenia, Evergreen Gem, Dorothy Perkins, Lady Gay, Hiawatha, alba rubrifolia, Polyantha grandiflora, Reine Olga de Wurtemburg, M. Desir and Mme. A. Carrière.

FRUIT GARDEN.

Fig tree injured (*H. E. S.*).—Many thanks for sending us a branch of your injured tree. About a month ago we had 30° of frost in many parts round London, and we think the injury to your tree was caused by this frost, as the Fig is a tender subject and cannot stand such a frost uninjured without adequate protection. The branch sent had borne fine fruit, and it is injured only in one of the places where the fruit had been pulled off. The pulling off of the later set fruit was only anticipating the action of the tree itself later on. This is a recognised method of sound culture, and is in no way responsible for injury to the tree.

Treatment of a Vine (*W. G.*).—You would be well advised to rub off with a gloved hand the rough, loose, outer bark of your Vine, but the live bark should not be touched. Without further particulars before us it is not easy to say what is the cause of your Grapes shrivelling. It may be that the foliage had been damaged by insects or in some other way before the fruit had been properly developed. A Vine will not perfect its crop unless the foliage remains healthy to the end of the season; or it may be that the roots of the Vine are unhealthy and unable properly to support a crop of Grapes as formerly. In any case we suggest the following treatment: In the first place mix half a pound of soft soap in a gallon of hot water. Wash your Vine thoroughly with this as soon as it has cooled down, using a brush not too hard (an old carriage brush would do), and penetrating into all the crevices of the bark where any embryo insects may be concealed, but taking care not to rub the buds off the Vine. The washing finished, paint over the Vine with the following solution: Flowers of sulphur, 4oz.; quicklime, 4oz.; soft soap, 4oz.; tobacco juice, one wineglassful. Mix well together in warm water and add as much soft clay as will bring the mixture to the consistency of paint. This mixture may be left on the Vine; it will gradually wear away in the course of the spring and summer. In the meantime any pests concealed in the bark of the Vine will have been destroyed. The next thing to do will be to thoroughly wash the glass roof and woodwork of the vinery and to colour-wash the walls, afterwards taking off the surface soil of the border until a good number of roots are found and wheeling it away. Replace it to the same depth with the best turfy loam you can find, chopping it up into pieces the size of a coffee cup, and mixing with each barrow-load of turf half a gallon of bone-meal and one gallon of lime. After well mixing, place the soil over the roots as far as they extend and press it firmly down. This treatment we hope will soon bring your Vine back to health.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

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Offices: 20, Tavistock Street, Covent Garden, W.C.

THE BEST METHODS OF USING A COLD FRAME.

(First Prize Essay.)

OF all the aids and contrivances which benefit a gardener, be he professional or amateur, there is none more useful than a cold frame; indeed, so valuable an auxiliary has been designated, not inaptly, the "half-way house" from greenhouse to garden. That a cold frame is almost indispensable to anyone having a greenhouse it is scarcely necessary to state, and though it is left on record that he "who loves a garden, loves a greenhouse too," it is not implied that a cold frame is any the less appreciated. In such a structure one may do very much in growing subjects that will help in no small degree to keep a garden gay, and also to provide salads for the table and for raising produce of a certain sort for the kitchen garden. In fact, so useful is a cold frame that in a well-managed garden it need never be really empty for long; and not merely in large establishments is such a receptacle of service in a variety of ways, but it is equally so to the owner of a small garden, whose only claim to "glass" is gauged by the dimensions of his garden frame.

In order, therefore, to demonstrate fully the best ways of using a cold frame, it should be borne in mind that the capabilities of a cold frame are fourfold, viz., that of shelter, propagation, hardening and for growing on plants for various requirements. I will assume that it is early autumn and for the time being I am acting in the capacity of three different persons—(1) a professional gardener, (2) an amateur, (3) a cottager.

As a Professional Gardener

I have under my charge a number of houses, a large kitchen garden—no inconsiderable part of which is allocated to fruit-growing—lawns and flower beds and borders. A good-sized frame (span-roofed) runs between the entire length of two of the houses, and this is divided into partitions, which are loose and may be removed as circumstances demand. Having regard to the uncertainty of growing salads out of doors in winter, a portion is devoted to Lettuces, two sorts being grown, viz., Winter White Cos and All the Year Round Cabbage. Plants are obtained from open beds in September and, with a number of roots of Parsley, are placed under cover, so that in the time of frost and heavy snow these two almost indispensable kitchen requisites will be forthcoming.

Flower beds and borders are a great drain upon the resources of both greenhouse and frame, and in order to meet the demand and to ensure the protection of plants (which in a mild winter will often go through unhurt) Violas and Pansies, Auriculas and hybrid Primroses are given a section to themselves, so that liberal ventilation may be given as weather permits. Calceolarias and Pentstemons are placed under a separate light. After the Lettuces are cut the bed is dug over, some new soil incorporated and got ready for the sowing of half-hardy annuals. By the time these are ready for their outdoor quarters, Violets which were lifted in the autumn and placed in the warmest part of the structure are getting over, and when runners have been selected and planted out of doors, the old plants are moved and their places occupied with Chrysanthemums, Pelargoniums, and tender annuals that have been raised in pans in the house. After these have been sufficiently hardened, space is reserved for plants that have done blooming in the house and can be better accommodated in the frame after new wood has been made. These comprise Azaleas, Heaths, Epacrises, Deutzias and other plants of a similar character.

In April Runner Beans are sown in boxes and placed under the lights, subsequently being planted out in the quarter reserved for them in the kitchen garden. Cauliflowers, too, from the first batch of plants sown in the house are now pricked off in the frame-beds from which French Breakfast Radishes have been pulled. Another bed of Lettuces is provided for in the variety Commodore Nutt. Strawberries in pots kept under lights apart are now transferred to the house as needed for bringing on. Celery plants are pricked off in beds in frames, and when bedding and other plants have been shifted places are prepared for the summer tenants of frames. These are Cucumbers, Melons and Tomatoes, and the whole of the plants are raised in the house for that purpose. A section of the frame is given up to Cucumbers and another to Melons, and to this end beds of suitable material are got ready. Tomatoes brought on in the house are grown in pots, 10 inches in diameter, and in order to accommodate them, some of the ashes are removed. By an arrangement of raising the sashes, as needed for the admission of air, yet utilising the heat of the sun, crops are gathered soon after those in the house are cut, and are more reliable than outdoor crops. Sorts grown are: Cucumber, Lord Roberts; Melon, Hero of Lockinge; and Tomato, Sutton's Earliest of All.

One of the partitions of the frame which contained bulbs is given up to Mushrooms and spawned towards the end of May. As the crops finish, in the early autumn, plants take their places from other sections, such as Cinerarias, Cyclamens and Primulas, which for a time remain until ready for transferring to the house, together with winter-flowering Carnations, Bouvardias, &c., that have found their summer quarters in the cold frame. As a professional gardener a cold frame is absolutely essential to me.

I am an Amateur Gardener

with one span-roofed greenhouse 15 feet by 10 feet, along the side of which I have a lean-to frame. I am asked to prove the best ways of using a cold frame. I will endeavour to do so; but let me say at the outset that mine is never empty. Here is a twelve months' programme: There are three lights of equal size. In one I grow Calceolarias, in another Pansies and Carnations, and the third

is filled with pots of bulbs in winter which are brought on in the house as they are wanted. I also manage to grow in a corner of one of the frames a few Violets, and along the back of the bed, near the greenhouse wall where it is dry, I invariably have a few Echeverias. Bedding plants, such as Geraniums, Fuchsias, Stocks, Asters, Lobelias and other half-hardy things, find shelter until they are hardened off to go out of doors. When these have been bedded out, Chrysanthemums are brought from the house and kept in the frame until I have time to pot them off in big pots.

For winter blooming I grow a few Primulas and Cinerarias, and these are found room for in one of the spaces. Later in the season I get ready a bed of manure, on which I grow Cucumbers. I have been very successful with Telegraph Improved. Besides this, I make use of the frame earlier for raising odd things in the garden, such as Celery and Lettuces, and frequently sow Beans in boxes and then harden them off. The losses are fewer than when seed is sown in the open ground.

I also raise one or two Vegetable Marrows on the Cucumber bed, which are afterwards planted out of doors; and on several occasions have grown Balsams therein up to within a few weeks of blooming, when they have been shifted to the house. As I like a variety of plants in my window-boxes and greenhouse in the summer, and in order that I may have a continuous show of bloom, I raise a number of plants in heat, and after potting some of them place them in the frame for some time until I am ready for them in the house, among them being Schizanthuses, Nemesias, Rhodanthes, Verbenas and Sweet Peas, which latter are raised in the frame. I should be quite lost without my cold frame.

I AM A COTTAGER

having a large garden, and a frame which I make the most of. In two years it paid for itself. This is how it came about: I grow about 300 Calceolarias every year, keeping perhaps sixty myself; the rest I sell. Then I sow half-hardy annuals, and some of these I dispose of, but I make as much out of Cucumbers I grow, and as I get manure cheap and a friend raises plants, the cost is only trifling. I get along very well with a frame, as I grow other things for my garden, such as Celery and Cauliflowers. Last year I sowed about a score of pots of Sweet Peas in February and put them in the frame, planting out in April in good ground. I took first prize at our village show and had flowers up to October. A cold frame did this.

W. FOWKES.

31, Breedon Hill Road, Derby.

PRIZES FOR READERS.

FEBRUARY COMPETITION. — AWARDS.

IN this competition readers were invited to send in essays on "The Best Methods of Using a Cold Frame." The prizes are awarded as follows:

The first prize of four guineas to Mr. W. Fowkes, 31, Breedon Hill Road, Derby.

The second prize of two guineas to Mr. J. Rawlings, The Gardens, Ridgemount, Enfield, Middlesex.

The third prize of one guinea to Mrs. J. E. Mills, Rutland Lodge, Bittern.

The fourth prize of half-a-guinea to Mr. T. Robinson, Linton House, Nuns Moor Road, Newcastle-on-Tyne.

This competition proved exceedingly popular, and a large number of excellent essays were sent in. The essays from the following are highly commended: V. Cockoam, Rosenau Road, Battersea Park; W. Yandell, Longford Castle Gardens, Salisbury; C. Comfort, Broomfield Gardens, Davidson's Mains, Midlothian; A. Eames, Heanton Satchville, Dolton, North Devon; H. Tomalin, Tower Hill Cottages, Kingsclere, Newbury, Berks; W. L. Lavender, Waltham Manor Gardens, Twyford, Berks; C. W. Caulfield, Bridgen House, Park Crescent, Erith; E. Platt, The Gardens, Borden Wood, Liphook; G. Walshaw, Griffiths Road, Wimbledon; Mrs. V. Jeffery, Foyle Road, Blackheath; J. Gray Besant, The Gardens, Castle Huntly, Longforgan, Perthshire; E. Barnett, Medstead Manor, Alton, Hants; C. F. Chipman, Winns Avenue, Forest Road, Walthamstow; J. W. Cunliffe, The Gardens, Highfield Infirmary, Knotty Ash, Liverpool; W. Hookey, Flinton Cottages, Church Walk, Weybridge; A. E. Groombridge, St. Mary's Road, Leyton; and S. Bicknell, Rowan Cottage, Buckden, Skipton, Yorkshire.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

*** *The dates given below are those supplied by the respective Secretaries.*

March 23.—Royal Horticultural Society. Exhibition of Flowers, Plants, &c., 1 p.m. to 6 p.m. Lecture at three o'clock by Mr. R. Lloyd Praeger, on "Rock Gardens, Natural and Artificial." Admission 2s. 6d. Royal Horticultural Hall, Vincent Square, Westminster.

March 24. — Perpetual-flowering Carnation Show, 1 p.m. to 6 p.m. Royal Horticultural Hall, Vincent Square, Westminster.

Scottish Horticultural Association.—The monthly meeting of this association was held in the hall at 5, St. Andrew Square, Edinburgh, on the evening of March 2. There was a good attendance, presided over by the president, Mr. James Whytock, Dalkeith Palace Gardens, and several exhibits of interest were included among those on the table. An interesting and able lecture on "The New Soil Science" was delivered by Mr. J. Hunter, and gave rise to a most useful discussion. Mr. Hunter gave an able survey of the most modern discoveries and experiments in the way of manuring, and criticised the teaching so frequently given, even in colleges, on the subject. He dwelt upon the services afforded by the different micro-organisms, and showed how these could be encouraged and assisted in their work. He was warmly thanked for his deeply suggestive lecture.

French nurserymen and duties on imported plants.—At the last meeting of the Commission Administrative de l'Union Commerciale des Horticulteurs et Marchands grainiers de France, presided over by M. A. Truffaut, it was decided, after due consideration of the propositions contained in the Report of the Commission on the Revision of Tariffs to be submitted to the French Parliament, to protest against any new duties or increase of duties on the importation of plants, flowers, fruits and vegetables. Although the additional duties proposed are not very high, the Union Commerciale, according to the vote recorded on the subject at the last general meeting, is of opinion that French horticulture is sufficiently protected. The adoption of new or increased taxes which have been asked for by a small group of interested persons might have, as a result, the creation or the increase of higher tariffs by other countries, which would sensibly affect the exportation of French products, such as flowers, fruits and Palms from the southern and plants and trees from the western parts of France, as well as of primeurs or early vegetables and fruits from the Paris district, the whole of which form the most important part of French horticulture. It was decided that another deputation should wait upon the president of the commission, and also that M. Deloncle, M.P. for the Department of Seine, and M. Arago, M.P. for the Alpes Maritimes, should be asked to use their influence and to oppose all new taxes and any increase of existing taxes when the discussion of the Bill takes place in the French Parliament. French horticulturists of all descriptions wish it to be known that they are opposed to new or increased duties being put upon gardening goods, as they are convinced that nurserymen of both countries must benefit by every facility being given for a free entry of such goods from other countries into their own.

Mr. Felton's floral decorations in Berlin.—It is interesting to note that on the occasion of Their Majesties the King and Queen's recent visit to Berlin, one of our London florists, Mr. Felton of Hanover Square, carried out the entire floral decorations at the great banquet attended in State by Their Majesties the King and Queen and the German Court at the British Embassy. The flowers employed were scarlet Carnations, Lilies of the Valley and white Lilac; but Mr. Felton says that he regretted his inability to procure in Berlin anything like as fine flowers as he could have done in England. He made up the deficiency, however, by employing great quantities and arranging them in masses instead of lightly, as he would have done if they had been of better quality and had had longer stems. He used in addition to the Lilac and Lilies nearly 200 dozen flowers of Carnations. He also was entrusted with other large floral works, among them the wonderful decoration of Messrs. Waring and Gillow's Berlin establishment. This was composed entirely of Mimosa, Violets, brown foliage and mauve ribbons, and was pronounced by all to be the finest exterior decoration ever attempted in Berlin. The Berlin Press alluded to the scheme as "noble and grand," and "one upon which Berlin florists might ponder" and "endeavour to imitate." During the work, which was done at three days' notice, Messrs. Waring and Mr. Felton employed nearly 100 workmen, including three interpreters, the municipal fire brigade officials kindly lending two fire escapes to enable the various workmen to place the floral garlands, florally decorated shields, electric devices and general decorations in position at the higher altitudes. Mr. Felton is authorised to state that His Imperial Majesty the Kaiser and His Majesty King Edward expressed their admiration of this work, as it will be remembered they did of the decoration, also carried out by Mr. Felton, at Messrs. Waring's establishment in Oxford Street on the occasion of the Kaiser's visit to London.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Roses and green fly.—When I was a boy my father told me that he, when he was a boy, heard in the streets a song, part of which was:

Perchance a recruit
Might chance to shoot
Great General Buonoparte.

In the same way perhaps an ignorant amateur may make a good shot in gardening. Last year it occurred to me to attack Rose aphis in the following way: As soon as the Roses had been pruned, and the prunings taken away and burnt, all the Rose plants were syringed over with a paraffin and soft soap emulsion. In the spring and summer we had practically no green fly on our Roses, though in other gardens round about there was a good deal. My theory is that the spraying destroyed the mother aphis, as the spray reached every part of the pruned and leafless Rose plants. We did not suffer from Rose caterpillars either, and this I attribute to my gardener having syringed the Roses at the end of May with some rather diluted arsenical spray which had remained over after spraying the fruit trees. I think both these methods are worth a trial.—R. B. (Colonel).

The classification of perpetual-flowering Roses.—Almost before I had finished reading the Rev. J. H. Pemberton's letter under the above heading in The Garden of January 9, a protest had formulated itself in my mind; but a feeling of diffidence, when I thought of the writer's standing in the Rose world, prevented me expressing myself. It is only after reading the article by Mr. George Prince in your issue of the 6th ult., and your footnote inviting correspondence on the subject, that I venture to write this. Mr. Prince has already expressed many of my objections better than I could myself, therefore it is unnecessary for me to go over the same ground; but I might add that if Mr. Pemberton were obliged to grow Hugh Dickson or even Frau Karl Druschki in the United States, or at least in that part of the country where I live, he would find how little either of them is entitled to be classed as Hybrid Teas from a perpetual-flowering point of view. On the other hand, J. B. Clark and Charles J. Grahame are as little deserving of this distinction, though placed in the Hybrid Tea class. All this might seem at first blush to sustain Mr. Pemberton's position; but to me it only goes to show that the latter two Roses are in the wrong class, for the fact remains that should one take up a catalogue and order at random from the Hybrid Tea and Tea sections, he would, with very few exceptions, be sure of getting perpetual-blooming Roses, whereas if Mr. Pemberton's suggested amalgamation should be carried out, it would be most difficult for one to make a selection with any certainty as to their perpetual-blooming qualities. Regarding Teas, I will only say that, aside from the distinctions pointed out by Mr. Prince, it would be difficult to convince me that a Rose having the scent of Harry Kirk (as I recall it), or, for that matter, of Gloire de Dijon, was of pure Tea blood, while lack of scent would seem to me to be simply a lack of evidence one way or the other. But, after all, is not this selecting of varieties that are on the border-line, and thereon building arguments as to whether the present classification should stand or fall, somewhat wide of the mark? Is it possible to construct any classification that will not leave room for disagreement when this border-line is reached? I think not. Botany is supposed to be a more accurate study than gardening as far as classification goes, yet Mr. Pemberton, in his excellent book on the Rose, says: "The botanical classification of the genus Rosa seems to present as much difference of opinion to the botanist as that of the cultivated inter-bred Rose does to ordinary Rose-growers," and it is not by any means in the genus Rosa alone that these eminent authorities disagree; therefore it seems to me that any new system of classification, particularly one that would ignore the more or less accurate claims of ancestry which we have now, would be so arbitrary as to cause much more discontent and confusion than now exists. I had intended to point out what I considered would cause great uncertainty in assigning certain Roses under the headings (1) and (2) in Mr. Pemberton's suggested classification, but, as this letter is already too long, will instead briefly mention one of several disappointments that have come to my knowledge from ordering Roses from an American catalogue where an "amalgamation" on somewhat similar lines to those suggested was attempted. In this instance all perpetual-flowering dwarf Roses were catalogued under the head of "Ever-blooming Roses," and the person who was ordering wanted some Tea Roses. He knew—and that was about all he did know—that Teas were perpetual bloomers; consequently he made out his list, fortunately a small one, and sent it. His disappointment may well be imagined when the Roses began to bloom, for he had ordered such varieties as Hermosa, Clothilde Soupert, Champion of the World, &c., and, if my memory serves, Etoile de Lyon and Safrano were the only Teas. He had chosen free bloomers and got them, but not what he wanted. This may not be a parallel case to the classifications suggested by Mr. Pemberton, but I very much fear that the resultant disappointments and confusion would be only too similar should his suggestion be adopted.—Alfred L. Squire, *White Plains, New York.*

—— This is an extremely interesting subject and should be debated thoroughly. I am strongly of opinion that there is work for a conference of experts in order to arrive at some standard of classification; then following that, let the National Rose Society adjudicate to which group the various novelties belong as they are tested after cultivation. I do not see why raisers should determine this matter, especially when, as hinted, they are ruled by business motives. Let us recognise the National Rose Society as our tribunal. I see a great reluctance in giving up the term Hybrid Tea, although it will have to go. That far-seeing and, perhaps, the best authority we have ever had on the Rose, the late Rev. H. D'ombrain, never liked the term, and he doubtless foresaw the difficulty that now confronts us. We are not justified in using the term Hybrid. I grant Soleil d'Or is a distinct Hybrid; but are not many present-day novelties merely cross-bred? Take, for instance, George Laing Paul, a cross between Caroline Testout and Fisher Holmes. Where does the Hybrid come in here? We want to simplify matters as much as possible; so let us have a reconstruction of the so-called Hybrid Perpetual group. I am not quite so scathing in my condemnation of this group as Mr. Pemberton. There are some that give us something more than "echoes in the autumn"; for instance, Mrs. John Laing, Louis van Houtte, Earl of Pembroke, A. K. Williams and Victor Verdier are worthy to be retained. I would suggest that we establish a group and call them Perpetuals. Into this group would go the freest-flowering of existing Hybrid Perpetuals, Bourbons such as Mme. I. Pereire, Mrs. Paul, &c., and Hybrid Teas, barring Gloire Lyonnaise and perhaps one or two others. Distinctive classes would be retained for Tea-scented, Dwarf Polyanthas, Rugosas, Chinas or Monthly; but this latter group would have to be overhauled and such Roses as Queen Mab, Irene Watts, Aurore, &c., placed with the Teas, to which they undoubtedly belong. Sub-divide the Teas by all means, and place such Roses as these just named and also Princesse de Sagan as China Teas. The Perpetual group could be sub-divided into Specimen Roses, Decorative and Massing, as suggested by Mr. Pemberton. I would also suggest that makers of schedules should offer prizes for the various families that are now so pronounced, *i.e.*, such as the Testout, Chatenay, Kaiserin and Lady Mary groups. Still further I would suggest the formation of a summer-flowering group, in which would be placed such Hybrid Perpetuals as rarely give an autumnal flower, such as Magna Charta, Clio, and Mme. G. Luizet, and join these with the so-called Hybrid Chinese group, which contains such as Blairi No. 2 and Chenedole. Of this summer group there would be sub-sections for Moss Roses, Damasks, Scotch, Briars, albas, multifloras, wichuraianas, gallicas, &c. By thus grouping we should at least avoid planting Roses that are required to give a good autumnal display, but that only give us of their beauty in the summer months. As to Maman Cochet not being a Tea Rose, I think its diffuse growths proclaim it a true Tea. As well call Souvenir d'un Ami a Hybrid Tea.—P.

Lycaste Skinneri.—The illustration on page 99 of Lycaste Skinneri has, I believe, ten flowers. I have five plants in 8-inch pots and they had in all over 100 blooms. One plant had thirty-two. I have enclosed a few for your inspection.—F. May, *Woburn Avenue, Theydon Bois, Epping, Essex.* [Very fine flowers.—Ed.]

Growing Cupid Sweet Peas.—As a constant reader of your useful and interesting paper, I shall be glad to tell others how I successfully grew Cupid Sweet Peas last year. The first buds were certainly inclined to drop off, but from the later ones I had a continuous supply of blossom which made a most effective edging to a border with a south aspect. The soil was a light and well-worked loam over a gravel subsoil, and had been well dressed with rotted stable manure in February and had had a good dressing of lime. Sowing was done early in April, the seeds being put in in groups along the border and much closer together than is usual with the taller varieties. When flower-buds formed the plants were watered with soot water every week, and received three or four times during the summer a pinch of superphosphate to each plant and in August a very small amount of nitrate of soda. They bloomed well until cut down by frost at the end of October.—Violet Jeffery, *Blackheath.*

Birds in gardens.—The correspondence in your columns respecting sparrows is an illlustration of the curious disposition people exhibit of desiring to interfere with the ordinary course of Nature. I live on the side of a river and grow fruit. I live in an atmosphere of birds, but I preserve my fruit. I had a gardener once who set to work shooting birds because an army of tits stripped a cherry tree of its buds in a single morning. I stopped him and explained that no amount of shooting would mend matters. You must protect the fruit and encourage the birds to do their office of protecting the trees from grubs. The water brings the birds, and I feed them on the principle that when birds cease to be hungry they cease to be mischievous. I have blackbirds, thrushes, the whole finch tribe, the wagtail and innumerable sparrows. The thrushes clear my lawn of worms. I have not a slug in the whole place, and the fruit flourishes because the birds do their office, and I protect the fruit. It is far easier to protect than to shoot, and while protection is effectual, shooting is ridiculous. Blackbirds and thrushes like Strawberries, and Strawberries I protect by erecting over the entire bed a tent of netting 6 feet high. Once arranged it is good for years. Pears I protect with bags made of mosquito net. When properly grown Pears cluster, and a bag may enclose half-a-dozen. No birds touch them; the fruit is the more delicate in the result; and the string of the bag being passed over a neighbouring twig, if the ripe fruit falls it hangs in the bag. Those who know nothing about it, and want to shoot sparrows, exclaim, "What a cost and what labour!" Nothing of the kind; a few shillings and a few hours, and the bags last for years. So convinced am I of the soundness of this policy of protection, that I contemplate covering about a quarter of an acre of choice fruit trees with 1 inch mesh wire from a high wall; but I shall give free entrance to the birds for nine months in the year. I regard them as a necessity, and put them in the category of root-pruning and other little attentions not generally observed.—Frederick Wicks, in the *Saturday Review.*

Sweet Peas Dobbie's King and Mrs. A. Ireland.—The fortunate visitors to Mark's Tey in 1908, during the flowering season, will not readily forget the glorious sight of long rows of the above. The one was truly a "King" and the other surely a "Queen" among Sweet Peas. The latter, on account of its soft, sweet colour tones, will be an especial favourite. For table decorations by day or under artificial light it is perfect. The standard is beautifully waved, of a rosy pink tint, and is enriched by a suspicion of cream at its base; the wings are rosy blush, and when bunched the effect is charming. The floral committee of the National Sweet Pea Society unanimously voted it a first-class certificate. "The King" made many wonder. The rows were simply masses of huge crimson "butterflies." Mr. Cuthbertson says it burns a little, but it seems to me that he hunted for a fault. I had the privilege of testing a group here last year and I did not observe it. The flowers are really giants, and if

exhibitors need to protect it from strong sunshine their labour will not be in vain. Both varieties are Spencers. — A. MALCOLM, *Town House, Duns.*

Late - flowering Chrysanthemums.—May I attempt to set those growers right who seem to be somewhat mystified over certain varieties? Framfield Pink is one of the Continental varieties sent us by M. Calvat. It was named Mme. Felix Perrin and was introduced as an exhibition variety. In this country it became almost lost; but the Americans found it useful and obtained a sport of darker colour, which they named Mrs. Perrin. This was grown here and privately there was considerable enquiry for stock. Blooms were sent to market from Framfield, and became known as Framfield Pink. About four years ago a much darker sport was secured, and this was certificated as Winter Cheer. It is of a sportive character and the shades of pink vary considerably. It is best when the blooms are expanded in a cool house well exposed to the light. When kept close and confined the blooms are of a pale colour. Heston White is a sport from it, and one of the very best and most useful. Mr. Strugnell mentions both A. J. Balfour and Nina Balfour. The first is correct, and it is a variety sent out by the late Robert Owen of Maidenhead. (There is a border Carnation named Lady Nina Balfour.) The same writer also mentions white and yellow Thomson. The yellow of this name is Mrs. A. Thomson, a small and early-flowered variety. Mrs. Joseph Thompson I introduced from America. It is popular as a late white variety, and the yellow in three shades sports from it. L. Canning is quite out of date, being too soft and a poor grower compared with others. Miss Maud Jefferies is a tip-top white for December flowering; a fine late pink is Miss Miriam Hankey. The best and most useful yellow among singles for late December is Little Barbee.—W. J. GODFREY, *Exmouth.*

WRITTEN FROM THE RIVIERA—FEBRUARY.

FLOWERS "AT HOME."

SHOULD we call February spring or winter? In England, you may call it what you will, but here in Provence it is distinctly spring. The sun, the flowers, the brilliant gold of the Mimosa trees proclaim it. Not so the happy cry of birds—that charm belongs not to this district. No song-birds are nesting in the woods, no warblers are singing in the shrubberies; the thrifty Provence peasant snares them all and eats them. If by chance you hear a carolling and trace it to its source, ten to one you will find nothing but a caged canary hung up outside the house. This is common enough, for people must have garden music somehow.

But "grass is greening," as in the spring it should; mostly in private gardens, however, and places where great pains are taken with it. So parched is the soil in summer that every blade of grass dries up. Those who want green lawns and borders must sow fresh grass-seed every year. Feeble and sparse to English eyes appear the tender shoots as they come up, so separate as to be counted easily. There is not the slightest occasion to write up any sort of *défense* about stepping on them. Nobody would have the heart to do it. One smiles to see the gardeners clipping the grass edgings for the first time. They do it very gingerly with domestic scissors. A well-known owner of two large gardens in this neighbourhood uses up 3 tons of grass seed annually. This will show the English gardener that the Riviera, though such a happy home for flowers, is not so good a place for the growing of good velvet turf, as misty, moist England. There is a certain hotel, a little further south, where the water that works the lift is allowed to run all over the garden grass almost continually, a plan that answers very well.

As to flowers, amid the pretty crowd, Violets, Anemones, and Roman Hyacinths are now the commonest; the two former are often grown together in large beds either round or oblong. The Violets are much longer stemmed than English Violets, and the blooms far larger; but do they smell quite as sweet? Truly beautiful are they to look at, however, each perfect flower-head well raised above its dark green foliage. Not only in private gardens are beds of Violets to be seen. Large patches of them, grown for the market, are met with in the vineyards and other open spaces, giving the most delightful surprises as one lights upon them unexpectedly.

The same may be said of Hyacinths and Anemones. Nothing in the wide world is more lovely than a broad stretch of Anemone flowers while in full bloom, especially when they are viewed fore-shortened, so that their many different hues are blended rose colour and scarlet, white and cream, and delicate mauve and purple. It is like the splash of colour thrown by sunbeams filtered through a stained-glass window. The pure white of the Anemone flowers suggests the purity of marble.

Contrasts in the garden continue to amuse us. Among plants we are accustomed to consider English, it is quaint to see the central point a Palm or some exotic that might have marched straight out of a conservatory at Kew Gardens. An Orange tree or a Lemon bush full of yellow fruit may be next-door neighbour to a bed of blue Forget-me-nots, coaxed into bloom by careful shading and watering. The next bed is full very likely of Camelias, red or white flowers of waxen beauty, out of fashion now in England, but here appreciated to their heart's content. The large-leaved Saxifrages are gay with great pink blooms, and make a handsome edging on borders of rock or stone. A good deal of stone is used in gardens here; it is plentiful and the best uses are made of it.

Above all, now is the golden harvest-time of the Mimosa trees. It is a harvest that lasts for many weeks. Packed in light, flat baskets during the whole of February, throughout March and early April, trains running northward are daily carrying the feathery branches to Paris, London, Manchester and many other towns. Lovely as they may appear to northern eyes, no one who has not seen these flowers growing in their own country can form a true idea of their beauty when absolutely fresh, nor of the sweetness and fragrance or the delicious fluffiness of their soft yellow balls. Luckily, though there are so many kinds of Mimosa (some of them rare and curious, and some blooming much later than others), the common kind, of which in England we see the most, is really as pretty as any. Its plentifulness is indeed an extra charm. No peasant of Provence is so poor that he cannot have a sprig of it to put in the button-hole of his blouse, stick in his cap, or place beside his horse's ear. Branches are carried gaily by men, women and children, much as in England they carry bits and boughs of May in the merry spring-time.

Just while Mimosa trees are at their best, the Almond trees light up their rosy pink, and after them the deeper-tinted Peach-blooms come out suddenly as if by magic. What a riot of colour! Pink and gold and the rich green of Pine trees; above and beyond all the blue of the shining sea and sky.

It has seemed strange to go through a whole winter without one glimpse of an English Snowdrop; but we are reminded of Snowdrops every day. Lifting our eyes to the far-distant peaks that rise so fair and bare above the purple slopes, there lie cool sheets of white all gleaming in the sun; these are the Snowdrops of Provence—flowers that will never fade or die or wither like other Snowdrops, but, melting imperceptibly as the sun gets stronger, will float away and be lost in the white vapours that crown the summits of the Estorels. FRANCES A. BARDSWELL.

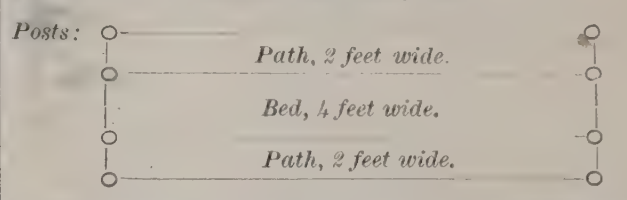
THE KITCHEN GARDEN.

HOW TO PLANT AN ASPARAGUS BED.

[*In reply to Major H. J. B.*]

THE Asparagus is a native plant and found growing on sandy banks near the seashore, therefore it follows that it thrives best on warm, light land; but by good culture and proper preparation of the soil it can be made to succeed well anywhere. An Asparagus bed, if well prepared and carefully planted, will last in good condition indefinitely; therefore a little extra expense and labour in forming it should not be considered.

The position in your garden, being sunny and warm, could not be better. Your soil being a heavy loam makes it necessary to secure extra drainage. (It would not grow at all in badly drained, wet, cold soil.) The first thing to do in your case will be to drive down deeply an Oak post or pile at each corner of the bed, 4 feet apart (which will be the width of the bed), and also one at the side, defining the width of the paths, which should be 2 feet, thus:



The stakes should be made of well-seasoned Oak; they will then last for many years, always forming a landmark defining the space allotted to the bed and paths, and which should be reserved exclusively for the Asparagus, no other crop of any kind being allowed any portion of the bed or paths at any time, not even weeds. The bed and paths having been marked out, the next thing to do is to throw out the whole of the soil from the paths, as well as the bed, 2 feet deep, stacking it near and on one side. This having been done, break up the bottom subsoil with a fork or pick if necessary, turn over and leave in the same place. Next place on the bottom a layer 6 inches deep of rough brick ends, broken crocks, stone or any other hard, imperishable material, choking up the top, to bring it level, with cinder clinkers broken small. On the top of this place thin, tough turves, grass side downwards, to prevent the drainage being choked by soil. (It is taken for granted that the land is well enough drained to permit of the water which will find its way into this drainage-bed finding an outlet.) The next thing is

THE SOIL.

That thrown out of the bed should be turned over and the worst (the heaviest) thrown out and taken away, probably one-fourth. Add to the rest one-third of its bulk of good rotten farmyard manure and also 28lb. of bone-meal to every cartload of soil used, also add three barrow-loads to each cartload of soil of some opening material in the way of coarse road grit, old mortar or plaster rubble, and even coarse sand if the others cannot be had in plenty. The several substances mentioned should be carefully mixed with the soil before it is placed in the bed. All being ready, place the prepared soil in the bed (the space also including the paths). When this is done it will be found that the surface of the bed will be 6 inches or more higher than the surrounding land. The next thing to do will be to tread the surface of the bed down (when the soil is dry) and rake over smoothly (not the paths) ready for planting. The best way to do this is to stretch a garden line in the first place down the centre of the bed, marking the places where the plants will be put in by inserting a small stick or a twig of a branch at distances apart of 18 inches all along the line. Stretch the line again on either side of the centre line at a distance from it of 18 inches, inserting

sticks along these side lines the same as the centre one at 18 inches apart, thus :

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* * * * * * *
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The bed will then consist of three rows at 18 inches apart, the same distance separating plant from plant in the row.

Planting.

The under-side of the root of the Asparagus plant is of a concave form, and therefore if laid down on a flat surface the under part of the crown of the plant would not come in contact with the soil, to its detriment. To get over this difficulty, small mounds of fine soil (about a couple of handfuls) should be placed in the middle where the small sticks are and the plants laid on the top of the mounds, pressing them gently but firmly down. The soil of the small mound will then well fill the cavity under the crown of the plant. The young plants having been placed in position, their roots should be carefully spread out on the surface of the soil, and then place a layer of fine soil from the paths over each plant to the depth of 4 inches, pressing it round the roots firmly with the hands. This completed, add as much soil to the surface of the bed from the two paths as will cover it all over to the same depth as the plants have been covered, namely, 4 inches. Let it be levelled and completed in a workmanlike fashion—the line laid down each side of the bed and paths, trimming them down neatly and, lastly, forking the paths over, and the work of forming and planting the bed is complete. Many people wonder why the paths should be treated as generously as the bed in the way of manuring and high cultivation. The reason is that in a very short time they will be as full of Asparagus roots as the bed, this plant being a tremendous rooter. The best time to plant is about the end of the third week in March. One year old plants should be used (not three year old). Have the bed quite ready to receive the plants before they are delivered, as exposure to the air for any length of time is most detrimental to the roots. The surface of the bed when finished will be from 8 inches to 10 inches higher than the level of the surrounding soil, and the paths will be from 4 inches to 6 inches lower than the bed, thereby securing effective surface drainage. The Giant Argenteuil is one of the best sorts in every respect.

Summer cultivation will consist of keeping down weeds and of occasional watering in very dry weather. Some "grass" may be cut the second year after planting, but not before. The third year the bed should be in full bearing. Full details of the seasonable culture of Asparagus beds will be found from time to time in our weekly calendar of operations in the kitchen garden. More than half the beds in the country are ruined by continuing to cut the young grass too late. Cutting should cease immediately green Peas are in season. Like every other plant, the Asparagus well repays good cultivation, and no trouble should be spared in bringing the shoots to as high a state of perfection as possible. The better treatment the plants receive the longer will they continue to produce good crops, and as a well-prepared bed will last for years, it is advisable to prepare it thoroughly at the outset.

Owen Thomas.

THE FRUIT GARDEN.

HOW TO GROW FRUIT TREES IN POTS.

(*Continued from page 122.*)

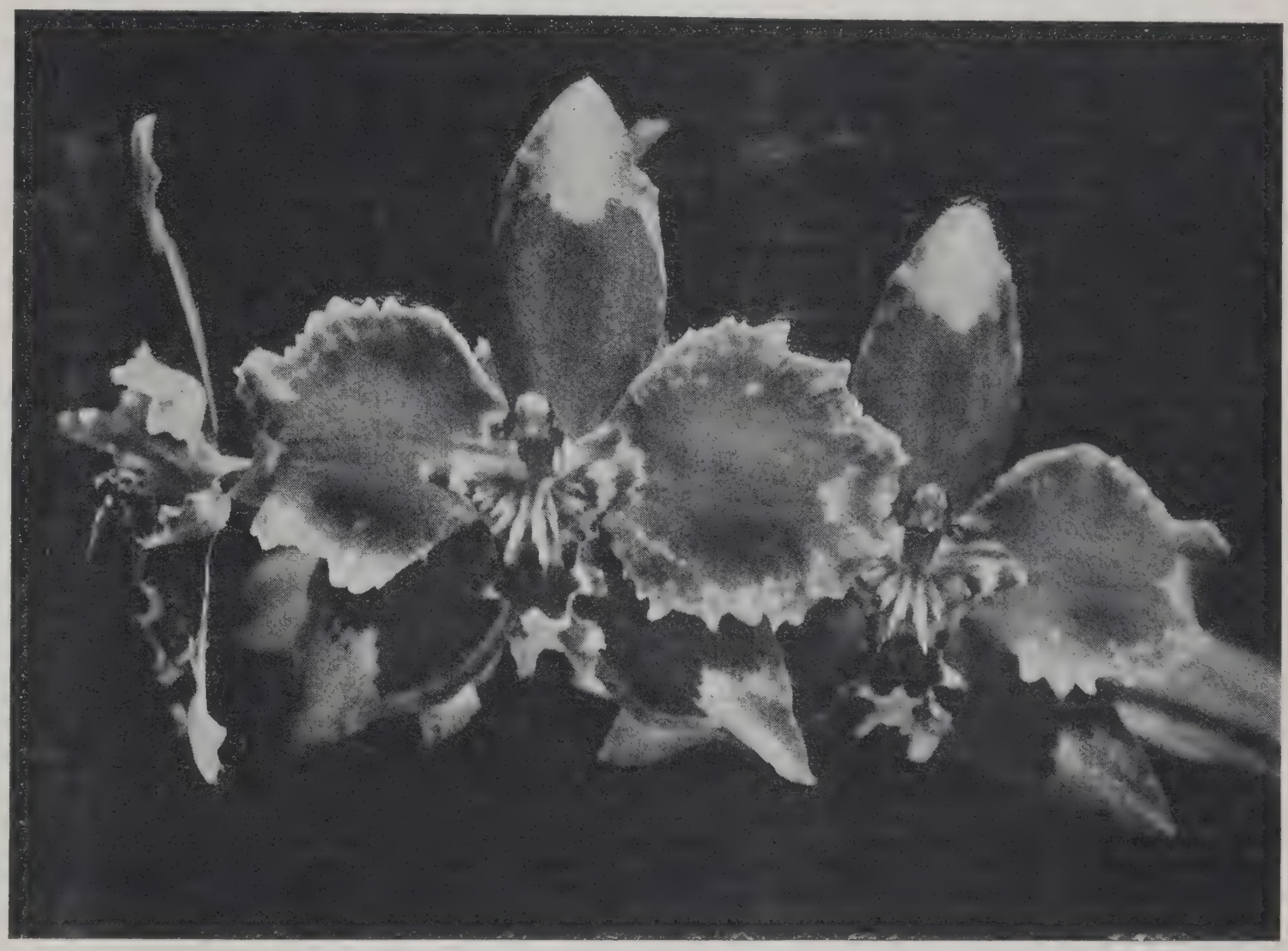
NOW, when the fruits on the trees in a particular house are cleared off, it is at once filled up with Figs for autumn fruiting; these continue in the same house, ripening their fruits until November, when Figs that have fruited in other houses are drafted there to ripen their wood prior to being either potted afresh or top-dressed early in January. In another house that is from early in January devoted to Cherries in pots, which yield their fruits from the end of April until the first week in June, when the first early Cherries (Guigne Annonay) are ripe upon a south wall, we also fill up with Figs that have been standing too close together in another house, or possibly some that have been standing outside, until room can be found for them under glass. Other instances could be quoted, but I think those given are sufficient to convey an idea of the uses to which an orchard house, well heated, may be applied.

Its Construction.

In the first place, I will say that elaborate or costly houses are not necessary. Ours are plain, well-built structures with one most important feature, viz., the maximum amount of light possible. By all means adopt the span-roof design, if such can be contrived. Ours are all span-roof, some being 18 feet wide and others 24 feet wide, the former with one pathway through the centre and an arrangement for a Strawberry shelf over the path and under the apex of the roof, the latter with two pathways, one on either side, and a shelf not over the pathway, but on one side and nearest to the centre. The height of the 18-feet range is 9 feet 6 inches in the centre (inside measurement) and 4 feet 3 inches at the sides, that of the 24-feet range being 10 feet 9 inches and 5 feet respectively. One size only of glass is used upon the roofs, viz., 20 inches wide by 15 inches deep, this being a "stock" size, hence there is no waste in cutting. Rather more than half, or thereabouts, of the sides are of glass butted together, this being the upper half. The other or lower portion is of wood, excepting three or four courses of brickwork for foundation. The wooden portion is in the form of ventilators, continuous from end to end. The usual order of opening these is completely reversed, these being hung upon hinges at the bottom, and thus opening outwards at the top. This may strike one at first as curious or illogical, but in practice it works splendidly. It prevents the ingress of cold currents of air, which invariably strike the ground first. The air as it enters has of necessity to descend, whence it is warmed by contact with the hot-water pipes to a large extent. By means of levers a simultaneous action or movement is effected to these side ventilators. The top ventilation is not continuous, but at intervals, being equivalent to one in five, or thereabouts, of the length. This is the method of construction in each orchard house, but the heating arrangements are slightly varied. In the larger size of houses the pipes are all fixed flatwise, but in the smaller ones the outside pipes are on the top of each other and close to the ventilators. Every house or range is provided with a rain-water tank of from 1,200 to 1,500 gallons capacity. I consider this to be a most essential feature, the supply of rain-water being infinitely preferable to any other.

Forcing and Non-forcing.

Whether forced or not, the orchard house culture of trees in pots is equally commendable, and with, say, three or more compartments both may be successfully combined. In our case we begin with Cherries in late April, and continue until the first earlies are ripe upon the walls. Peaches and Nectarines, and Plums too, we



THE NEW ODONTIODA BRADSHAWIÆ COOKSON'S VARIETY. (*Natural size. See page 147.*)

begin with by the first week in May, and continue these in regular succession until the end of July, with an interval during August. The demand during that month can be easily met, but it begins again early in September and continues until about the middle of October. During this latter period the best dessert Plums are the most important supply. Plums also form an important feature during the latter half of May until the middle of July; thus the forced Plums cover a period of two months. We have grown both Apples and Pears under glass, but these have had to be given up for the greater extension of Fig culture. In the case of Figs, we begin to pick the first early sort, St. John's, about the first week in March, and these continue for about six weeks or two months. As alluded to before, Strawberries, both as forced plants and as late crops, are grown upon shelves, and Tomatoes for late use chiefly. In the case of trees that are not forced, we as a rule flower and set them in an absolutely cold house, where they stand in quantity close enough to fill three times the space later on.

POT CULTURE *v.* PLANTED-OUT TREES.

In some orchard houses the planting-out system is adopted; but then, as a matter of course, it is not possible to make the utmost use of the room as under pot culture. If planted out, extension must be given or provided for, otherwise by severe pruning gross wood is made which will not always be fertile. Therefore, unless the house be capacious and the number of trees limited, the best results will be from pots. Of course, if the labour strength is not sufficient to work the pot system, recourse must be had to the other. To grow pot trees in houses that are partially shaded by trained trees next to the glass is to court failure. It has been often tried, but how often successfully? If the trained trees are against the wall, in the case of a lean-to house, then pot trees may be managed in front of them so long as they are not in the least shaded. In this arrangement, too, it will be possible to do the utmost good with that indispensable article—the syringe.

LENGTH OF LIFE OF TREES IN POTS.

In the case of Peaches, Nectarines, Cherries and Plums, the advantage in this particular is on the side of pot trees. An inspection of the immense pyramid Peaches and Nectarines in pots at Sawbridgeworth is a clear proof of this; many of these specimens are unique in their way. In some instances these trees are, when their ages are compared with their size, as remarkable as the pigmy conifers of the Japanese gardeners. But more remarkable still at Sawbridgeworth, in my opinion at least, are the Cherries grown in pots. If anyone needs an explanation respecting the non-success of Cherries and their fertility in the open ground, whether it be as trained trees or as orchard standards, one has only to make an inspection of these trees in pots, and to the close observer the problem will be solved at once. It is well known that the attendant evil of canker often persistently follows when the trees are overluxuriant, and the pruning in consequence somewhat severe. This is an object-lesson that every fruit-grower should see for himself. Upon comparing the size of the pots with that of the trees, it seems scarcely possible that such grand crops could, year after year, be produced. The fine quality and size of the individual fruits are also remarkable; this all will know who have seen the exhibits of Messrs. Rivers at the Royal Horticultural Society's meetings and elsewhere from time to time. Our own experience with Plums is also almost on a par with that of Cherries, notably in the case of the Transparent Gage section; these are notoriously strong growers when planted out, but when in pots the control that is brought to bear results in the utmost profusion of well-finished fruits. For forcing, to yield a supply of the choicest dessert fruit during June and July, these Transparent Gages are of the utmost value. Since we began to grow orchard house trees in pots at Gunnersbury I have had but very few deaths to record. We commenced with pot culture in a small way in 1894; now, if we count Vines and Figs in pots, there are nearly 1,200 pots in all. Some of the trees that were forced in 1896 are still thriving, and look as well as ever they did from the point of fruit-bearing wood and the present abundant promise of bloom. The earliest of these are now (January 26) just opening their first flowers; these are Cardinal Nectarine, Duke of York and Duchess of Cornwall Peaches, and Early Transparent and Early Rivers' Plums. The health of these trees is uniformly good throughout. I mention this because I think that there is an impression abroad, and this has been confirmed by questions that have often been put to me, as to the longevity of pot trees. To consider them as short-lived, given good and reasonable treatment, is a popular delusion.

(To be continued.)

FRUIT NOTES.

MULCHING TREES.—In the case of newly planted trees it is often wise to defer the application of any mulching material until the end of May or very early in June, when the sun will have warmed the soil, and it is desirable to keep the surface cool, and thus encourage the roots to remain close to the top; but pressure of work would prevent our applying this rule to all trees. It is sound practice to give attention to the matter now, while there is time for it to be properly carried out. It is immaterial whether the trees are growing on walls or in the open garden—all alike will be improved by such dressings. In the case of wall trees, the first thing to do is to make quite sure that the soil is pleasantly moist, and if it is not so, let heavy soakings be given several hours in advance of surface cultivation. This will consist of carefully loosening the soil to a depth of 1 inch or 2 inches, and then covering in with short, sweet manure. Trees in the open will probably be moist enough about the roots, and it will suffice in their case to prick over the surface as already suggested, and at once apply the manure. In the event of heavy rains following and beating the dressing down into a close mass, the grower should take a favourable opportunity of stirring it up with a fork, as it is most desirable that air shall always have free passage.

GOOSEBERRIES.—I always like to leave the pruning of the Gooseberries until the last possible moment, because birds are apt to demand too generous a toll of the buds when the bushes are open and free of access; but it is now necessary that the work shall be carried forward to completion. The principal cutting must, of course, be done to spurs; but it is wise to allow of some extension, unless the whole of the available space is fully occupied, and also to leave in a few of the previous season's shoots, as these will produce fruits of exceptionally fine quality, as well as encourage root action. If birds still prove troublesome, it will be necessary to freely enmesh the trees with black thread, which the birds do not appreciate, or to spray them occasionally with a solution of soft soap and quassia, using about 3oz. of each to the gallon of water. Another deterrent is to scatter a mixture of soot and lime among the branches when these are wet; but the operation is very far from being a pleasant one to carry out. As soon as these details have had proper attention the soil should be loosened and mulched with manure, as advised in the preceding paragraph.

MORELLO CHERRIES.—These are among the most useful of all fruit trees for planting against north walls, where the choicer kinds will not thrive satisfactorily. In such a position, if the soil were well prepared at the outset, with manure and lime rubble incorporated according to necessity, the Morello will grow splendidly, and regularly each year carry a heavy crop of fruit, to which, although it is not sweet, it may be noted, birds are extremely partial. The management of the trees differs entirely from that accorded to sweet Cherries, as the pruning is precisely that of Peaches and Nectarines, whereas sweet varieties are cut close into the spurs on the old wood. No time should now be lost in laying in the young wood that is to carry the fruit, and the main point to keep in view is avoidance of any semblance of crowding. Wherever there is plenty of space to lay in a shoot let it be done; but the grower who attempts to pack in the growths will lose in quality and bulk of crop.

PLANTING.—Any work of this nature that still remains to be finished should be put in hand whenever the weather conditions are favourable. With the soil in a free-working, friable state, the operation can be done expeditiously and well; but it must on no account be attempted when the soil is sodden with water. The station should have only sufficient depth to comfortably accommodate the roots, which should be spread out to their full extent with fibrous loam or other good soil worked firmly between the layers. Never cramp the holes in the matter of diameter, as the roots will soon extend. FRUIT-GROWER.

HINTS ON VINE CULTURE.

(Continued from page 102.)

MAKING THE BORDER AND PLANTING.

IT is safer for the amateur to have a border so constructed that the roots of the Vines can permeate it both inside and outside of the house, with the Vines planted inside. Thirty years ago Grape-growers usually made very deep borders, and gardeners of the present time, when overhauling such borders, find few roots in them and none that is quite sound near the bottom. How can roots live and sustain a Vine as they ought to when at the bottom of a cold bed quite away from the sun's warmth? A body of soil 20 inches deep is sufficient if there is thorough drainage below it. Another mistake often made is the inclusion of several kinds of organic and concentrated chemical manures. Some crushed and half-inch bones may be put in in small quantities when the border is constructed, but feeding is best done when the soil is well filled with roots. Large masses of manure render the soil sour, and roots will not then enter it.

Again, there is no need to make a wide border; some growers fill it up to the whole width of the house, and also a corresponding space outside, at the commencement. Of course, the roots of the Vines do not take possession of all this compost at once. Several years pass before a full complement of roots fill it, and in the meantime the soil is becoming sour and of less value as a rooting medium. Make the border 4 feet wide at first and 22 inches deep. If a width of 18 inches or 2 feet be added annually afterwards, the cultivator will be astonished at the good progress of the Vines. Autumn or winter planting is the best for amateurs to adopt. If the Vines are not planted while the buds are dormant, it is better to wait until the beginning of May when new shoots are growing. The drainage material must be about 9 inches or 1 foot deep. Put turves on the drainage rubble, grass side downwards, and then fill up with turves chopped into four pieces. Add a little old mortar rubble as the soil is being built up, as Vines much appreciate it. Allow the soil to settle down, only treading on it lightly, then spread out the roots of the Vines evenly and cover them with somewhat finer compost 4 inches deep and make it moderately firm. Old pasture ground provides the best turves. Give sufficient water to settle the soil around the roots.

Good Varieties for Amateurs.—For early gathering the following varieties are the best: Black Hamburgh, Foster's Seedling, Madresfield Court and Buckland Sweetwater. For later use plant Alicante, Gros Colmar, Gros Maroc, Muscat of Alexandria and Lady Downe's Seedling. The last-named keeps in good condition until April of the following year. G.

(To be continued.)

THE GREENHOUSE.

FORCED BULBS AND EELWORMS.

HAVING suffered heavily from the ravages of these creatures, I thought it well to give a note of warning to others, so that they might at least be able to recognise their foes if attacked by them, for it is often a considerable gain in time to know what kind of enemy to look for and fight against when one's plants go wrong. I do not for a moment think that this pest is anything new, but I do think that a great many growers have suffered from its ravages without finding the true cause and have laid the blame on the wrong thing—some to the bulbs, others to soil, and others again to wrong plunging material.

In the case of our own firm we had been plagued with these creatures for several years before finding out the cause, and in the end the discovery was made through inference. A few Primula plants turned sickly, and on turning them out the roots were found to be so swollen as almost to resemble Chinese Artichokes; this was found to be the work of eelworms. It then occurred to some of us that the failure of some pot Hyacinths might be attributable to the same cause, and after a very careful examination we found this to be the case.

Some Hyacinths had been potted up for trial and nearly all were a failure; they showed good fat buds between the leaves and then stood still, refusing to grow any more or expand their blooms. The worst examples were in the case of bulbs which had been kept very dry in a cold, dark shed (to carry out an experiment); these had made roots freely enough, but every bit had been destroyed by the eelworms, and when turned out of their pots we found they were trying to form fresh roots. For some time we wondered whether the worms had caused the mischief or were only eating up decayed roots which had gone wrong from some other cause; but the fact of bulbs which had been kept the driest being the worst seemed to argue against that theory, and at last I was satisfied in my own mind that the eelworm was the culprit, when, after spending a long time with a strong hand-magnifier, I discovered the head or tail of two of the brutes sticking out of a white, healthy root, but which, under the glass, showed signs of collapse, for these pests seem to tunnel out the root, leaving the skin to decay away.

The next question arose: Where do these creatures come from? This was soon answered, for on going to the turf-heap and pulling some pieces asunder our grower came across a perfect nest of them between the rootlets of grass, and further search showed the turf to be alive with them. Since making the discovery I have had several lots of bulbs sent to me to know what was wrong with them, and all were found to be suffering from the same thing, so that it appears the pest must be pretty general. In the case of my own firm we have lost, or partly lost, forced bulbs of Hyacinths, Tulips and Narcissi. Of the last named all the large trumpet Daffodils seem worse affected than the incomparabilis and other short-cupped varieties, probably, I think, because the larger and more fleshy roots of the former were more to the liking of the ravagers.

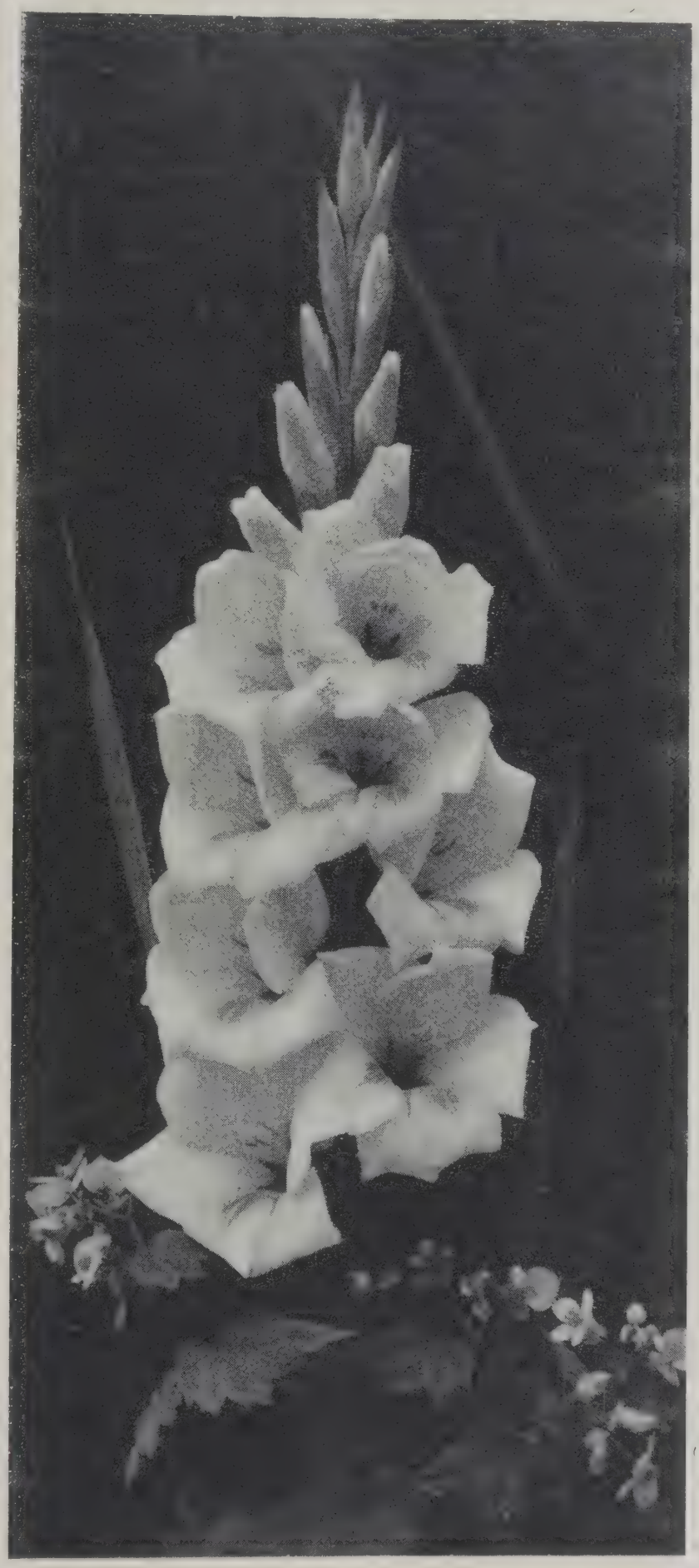
This pest is not easy to find, for it is only about the thickness of a human hair and from one-eighth of an inch to half an inch long; in colour it is nearly white. It would often escape detection if it were not for the wriggling of the creature when exposed to light. I have found a large hand-magnifier the best thing to find them with, as it covers a large field and is yet powerful enough to show up the "game" when one knows what to look for; in fact, a person with good eyes can find them unaided.

The next question is how to avoid the trouble, and here I badly want to receive an answer, for at present I am unable to give one myself. No doubt sterilising the soil by means of steam would be a cure, but very few have the apparatus necessary to carry this out. In our own case we had tried Vaporite on the soil in which the bulbs failed this year, and at a much greater strength than is advised by the makers. A great many other pests were killed, but the eelworms seemed to rather like it than otherwise. I would suggest that any grower who has been troubled in the past should in future try old garden soil in preference to turfy loam when potting up his bulbs, for I do not think such soil would be likely to contain eelworms; constant turning over and the attention of robins and other insect-eating birds would, I think, soon rid garden soil of them, even if it contained plenty to start with. Of course, good turfy loam is preferable if it can be had free from insects of sorts, but bulbs would succeed far better in the poorest of poor soils than in the best of loam which contained eelworms. This has been proved conclusively in my own case this very season, for bulbs from the same stocks grown in fibre in china bowls have flowered well, while those potted in turfy loam have been complete or partial failures.

Perhaps some of your correspondents may have suggestions to make as to getting rid of this little beast, which though small in bulk is yet mighty in evil deeds.

J. Duncan Pearson.

The Nurseries, Lowdham, Notts.



SEEDLING GLADIOLUS HAINE. (*See page 140.*)

THE SMALL GREENHOUSE FOR PLEASURE AND PROFIT.

One of the chief delights of the amateur gardener of to-day is that he be the possessor of a small—often very small—greenhouse, in which he may grow the flowers of his choice, and that delightful miscellany of plants and cuttings, the outcome of purchases or exchanges, that are so very dear to him. Indeed, it is just in that infinity of variety, in conjunction with the little history attaching to almost every plant or cutting grown, that the amateur feels and experiences that boundless pleasure that it is to be hoped will long remain with him. For apart from the pleasure afforded him by the fact that he grows all the flowers that now adorn either his table or his garden, there is that fuller knowledge, touched by pleasurable pride, that it is the work of his own hands, and that he had hitherto greatly under-estimated his own gardening skill. The knowledge and the facts inspire him not unnaturally to greater efforts, and presently, and all unawares, he finds himself not a customer of his former greengrocer, but the reverse, the greengrocer taking gladly all the Tomatoes he can spare. And it is not infrequently the case, when the shopkeeper has expressed his willingness to take all available surplus supplies, that the amateur for the first time realises that with a little more glass and a little help occasionally in the garden something more might be done. Then it is, touched by the first flush of success, that the amateur decides upon an extension in the hope of joining pleasure with profit. He is encouraged in this by the obvious improvement in health and temperament, and he has found unmistakably that his little gardening hobby has proved an elevating, health-giving recreation that was unknown before.

Pleasure and Profit. — The latter in this connexion must not be misinterpreted, as it is hardly possible with a quite small greenhouse and small garden to make money, but rather to so arrange matters that the produce grown covers the entire cost, the proprietor meanwhile obtaining his own supplies of many things, with which is ever associated the beauty and the freshness of the home-grown article. As there are many amateurs at the present time who would like to

make such a venture, I purpose giving a few hints as a sort of guide at the start, showing what to grow for main and succession crops, how to plant and generally how to make a sort of *multum in parvo* of the glass or greenhouse best suited to the purpose. There is, of course, at the outset the important item of the greenhouse, its position, heating, it use in winter as well as at other times, each of which I hope to touch upon in simple and clear terms which will be understandable by the vast majority of readers.

The Greenhouse.—In those instances where the occupier is also the freeholder a more or less substantial structure should be considered. Where the occupier is tenant only, a less substantial structure will do quite well unless a long lease is held of the property. In the case of a short lease, a structure known as a "tenant's fixture" will be best. Such a structure may rest on a course of bricks laid into the soil, and is removable at will.

Position.—The best position for a greenhouse of the kind we have in mind is one that is quite removed from the shade of large trees, and equally so from the shade of any large building or dwelling. In short, the fullest unrestricted light is as great a necessity as the greenhouse itself; anything opposed thereto will but end in thin and weakly examples of plants that can never give any satisfaction. If some such position as this be not available, the project is hardly worth further consideration from the present point of view.

The Right Sort of Greenhouse.—The best type of house, best, because of its many clear advantages to receive the fullest light available, and best also because of its get-at-ableness without and within, is that known as span-roofed. Such a house may be ventilated on the south and north sides of the roof if the aspect is right, and, when necessary, may also be ventilated at each side by means of openings in the side walls. The only other type of house is that with the lean-to roof, and there is that modification of the lean-to house which is known as hip-roofed. Situated in clear, open surroundings, either of the latter may be made serviceable for certain classes of plants, and if of south aspect would be of especial value for Grapes or Peaches under glass. For various other crops, however, this lean-to type is less satisfactory. The lean-to structure is certainly worthy of consideration in a garden where a high wall already exists; and if no other impediment offers, such a wall should be turned to good account.

Its Aspect.—Where the fullest winter sunlight is courted or desired, there is no aspect to equal that of a house running due east and west, broadside on to the south. If these points are not available by reason of space and other circumstances, the nearest approaches thereto should be considered. In the position indicated, the morning sun is quickly felt, and this in winter time is of supreme importance for most flowering subjects. A house running north and south receives but a modified degree of the sunlight in winter time, the occupants of the house obtaining little good from it. On the other hand, when the sun strikes the house broadside, the whole of the occupants feel it instantly.

Hampton Hill. E. H. JENKINS.

(To be continued.)

THE FLOWER GARDEN.

GLADIOLUS GANDAVENSIS.

THERE are to-day several distinct types of autumn-flowering Gladiolus, each of which has its own particular beauty and characteristics, and doubtless its special admirers. We all have our preferences. My own is very decidedly for the gandavensis type. The Lemoinei, the Nanceianus, the Saundersii and the Childsii are beautiful and most welcome variations, with their dark-spotted throats or their looser and larger flowers; but they have not that quiet dignity and rich appearance which I always have associated with this handsome autumn flower.

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GLADIOLUS MARKS BARN.

HISTORY.

The possibility of raising hybrids dates from the introduction of "Cape" plants into European gardens about the middle of the eighteenth century, but it was not till 1841 that the celebrated nurseryman, Louis van Houtte, first offered the hybrid Gladiolus which he had found in the Duke of Aremberg's garden at Enghien under the name of Gladiolus gandavensis. It at once created a *furore* in the floral world, and soon became widely distributed.

The next step was its improvement. The name of M. Souchet of Fontainebleau is the one which is best known in this connexion, until we come to the last two or three decades, when Max Leichtlin, Lemoine and Kelway take his place, and bring us to the present-day workers, among whom we must include, besides themselves, Vilmorin-Andrieux and Co. of Paris; John Lewis Childs, in the United States; H. H. Groff, in Canada; G. Mair and Son, in Scotland; and W. C. Bull of Ramsgate, England.

BRITISH WORKERS.

No one can dispute for one moment the commanding position that the firm of Kelway and Son of Langport have occupied in connexion with this flower for the past fifty years. Since Mr. James Kelway came to the conclusion that as a decorative plant no Gladiolus "could compare for grandeur, grace and beauty to the gandavensis hybrids," and accordingly obtained in 1857 all the best of M. Souchet's raising that were in commerce, the firm have introduced a vast number of varieties, which have gradually become more varied in colour, finer in the size of the individual flowers and longer in the length of their spikes. The illustration of Marks Barn shows a good type, a modern flaked flower raised by Messrs. Kelway and Son.

About ten years ago Messrs. George Mair and Son of Prestwick, N.B., began to hybridise gandavensis, and they have been very successful. They had a small but excellent collection of some of their best varieties at Shrewsbury last year. Another worker in the same field is Mr. W. C. Bull of Ramsgate. He has more especially turned his attention towards the lighter shades, and it is his ambition to give the world a pure white and a pure yellow. Naturally, he has not neglected the introduction of the yellow Gladiolus primulinus some four years ago from the Zambesi, but it is too soon at present to be able to say how much nearer it has brought him to his ideal. Haine, which is figured on page 139, is one of his best yellows; but, alas! it spawns so sparsely that it will be some time before it can be sent out.

FRENCH RAISERS.

The most noted firm are V. Lemoine and Son of Nancy. They make a speciality of the Lemoinei and Nanceianus varieties. Vilmorin-Andrieux and Co. also introduce Souchet seedlings (gandavensis type) from year to year, but I am uncertain if they raise many themselves.

CULTIVATION.

The first requisite for success is a proper preparation of the ground. The site for planting should be double dug in the winter to the depth of 1½ feet to 2 feet and a good dressing of old manure and bone-meal mixed with the lower spit. The gandavensis class like a fairly stiff and deep loam with good drainage, hence the benefit of double digging. In gardens where the soil is very sandy or shallow they are not so easy to manage, for they will require very great attention both to watering and feeding. Speaking generally, probably the best time for planting is during the first three weeks of April in the open ground; but if early bloom is wanted, or if it is wished to hurry on the later kinds so that they may bloom before frost, they may be started in pots in March and planted out at the end of the next month. Having made the ground firm,

the corms may be put in about 4 inches or 5 inches deep and 6 inches apart, leaving some 10 inches between the rows. Stake the plants when they have grown about 18 inches with stakes sufficiently long to support the spikes later on at the end of July. Careful fastening is necessary, as the stems are brittle, and wind and small birds alighting on them are apt to break them. If June and July are dry months, a good soaking once every ten days will be of much benefit. I have found a thin mulch of fine peat a great help at such times. The Gladioli like a bright sunny position, sheltered if possible from north and east winds. They are sun-loving plants, and do best when given a bed to themselves. If they are planted in a herbaceous border, they must be in positions where they are not shaded by strong-growing plants and where their roots may get a proper amount of nourishment. The end of October is a good time to lift the plants, and the operation should be carried out whether the tops are green or not. I generally hang them up in bundles in a cool outhouse to dry for a week or two, and then cut off the old stems close to the corm, when these latter may be put in any cool and perfectly dry place in single layers on trays or else stored in fair-sized, open bags until next planting-time.

What to Buy.

For clumps in borders nothing is much better than the old bright scarlet G. brenchleyensis or Van Dael (Bull and Mair). This latter is a beautiful pale pink and a good doer. It is a variety which would make a nice companion to G. brenchleyensis if planted in alternate clumps. The named varieties are legion, and I feel sure that anyone putting themselves in the hands of any firm who make a speciality of Gladiolus, such as Messrs. Kelway and Son (Langport), Messrs. Mair and Son (Prestwick, N.B.), Messrs. Wallace and Co. (Colchester), Messrs. Hogg and Robertson (Dublin) and Mr. W. C. Bull (Ramsgate), and asking for a good representative collection will be well served. For the sake of those who would like to grow a few of the choicest I append a short list: Roberval (Bull), clear salmon pink, with white blotch; Sans Pareil, bright orange rose, with large white blotch, very good; Marie Therese, creamy white; Jeanie Smith (Mair), scarlet; Lady Muriel Digby (Kelway), white, with cherry blotches; Golden Measure (Kelway), beautiful yellow, very fine; Darkness (Kelway), rich blood red; Janet Mair (Mair), cherry red, with white blotch; Mme. P. Palmer, rosy carmine; Mrs. Finnie (Mair), bright rose; Haine (Bull), pale yellow; Safrano, pale yellow, petals crimped and edged with rose; Duke of Richmond (Kelway), rosy pink; Carnation, rosy white, edged with carmine; La France, a pale carnation; and Hercules, vermilion.

Joseph Jacob.

SNOWDROPS AT CASTLE MENZIES.

The accompanying illustration is from a photograph taken by Lady Marjorie Dalrymple and kindly sent to us by Lady Menzies. The Snowdrops are growing in the woods at Castle Menzies and amply demonstrate their value for naturalisation where the bulbs can be left undisturbed year after year. As will be seen, they form a perfect carpet of white, their quiet beauty being considerably enhanced by the large and old Sycamore trees towering above them. Much more might be done in the way of beautifying the more open spaces in woods by the planting of hardy bulbs, a feature of gardening which is becoming more popular every year.

HOW TO GROW ANNUAL FLOWERS.

In a paper given by Mr. Alfred Watkins before the Royal Horticultural Society, the following remarks occurred on the way to grow annual flowers. These notes from so well-known an authority are valuable:

No doubt, among the readers of my paper will be many experts and a few amateurs, of whom some are probably more or less experts in various departments of floriculture.

It is not so much these, who probably know the annual flowers almost as well as the Roses, Orchids, and florists' flowers, as it is the small amateur gardener who keeps only one man or who cultivates his garden himself, whom I wish to impress with the great beauty and capabilities of many of our present-day annuals when properly grown.

I will divide my paper into three parts. I shall give, first, my idea of the proper cultural treatment of annuals generally; secondly, a few facts regarding the enormous increase in the number of kinds, and especially in the variety of colours and improvements in habit of the different plants available now as compared with years ago; and, thirdly, a short sketch of how by careful and constant selection these results have been brought about. [We select the first part.—Ed.]

SNOWDROPS IN THE WOODS AT CASTLE MENZIES.

Annuals are really quite as useful in large gardens as in small ones, for a long succession of bloom can be obtained from many of them. Some are more suitable for large beds and borders, others for small beds; some for carpet bedding, others for cut bloom; some bloom in spring, some in summer and some in autumn; many are more fit for greenhouses and growing in pots; some grow 8 feet to 10 feet in height, some only 6 inches or less; some are hardy, some are not.

Annuals, however, are, I fear, despised by many people, partly because they are not properly known, and more often because they are most improperly and negligently grown. The ordinary amateur is generally, or at any rate often, a relentless murderer of annuals. He buys a few or many packets of seed as the case may be, sows them very thickly in little clumps, puts a cleft stick in the centre of each clump with a little paper flag in the cleft bearing the name, and thinks that is all that is necessary, or that Nature or chance will do the rest. A packet of seed, whether it contains many or few, must be all crammed into this one little clump or patch instead of making two or three or more. Consequently the plants struggle for a time for bare existence in tightly packed masses of fifty or a hundred, where there should have been but two, three or four plants at most. Poor wretched annuals! Disease and death come prematurely to nearly all, probably all, though perhaps a few continue to struggle on and eventually bloom. But what a bloom! What a plant! bearing scarcely any resemblance to its real natural beauty—sans form, sans habit, sans size, sans everything that would have made it beautiful and attractive.

If, however, they had been sown by anyone with experience or even common sense in a spare part of the garden thinly, so that the seedlings when just above ground had been half-an-inch or 2 inches apart, according to kind, of course, and then, as they grew on, if at all crowded, thinned out and, when large enough to handle, transplanted to where they were to remain and flower, they would have grown into good plants and developed in all their beauty of habit, form and size. I can think of no annual that requires less than 6 inches to 8 inches of space to grow and develop in, except perhaps the little Virginian Stock or Nemophila, which might put up with, say, 4 inches, but, of course, large-growing plants, such as Sunflowers, Antirrhinums and tall Larkspurs, should be much further apart even than 6 inches to 8 inches. These require from 1 foot to 2 feet or even 3 feet. Some few annuals do not like transplanting, and should be sown where they are required to bloom, of course, thinly; when up they should be thinned out early, not waiting till they begin to suffer acutely from overcrowding. Such are Poppies of all sorts, Eschscholtzias and all those with long tap-roots.

I have spoken so far respecting annuals which are better sown out in the open, but many, a great

many, are better sown in pots or flat boxes under cold frames, and some under frames in a little heat in January or February, thinly, always thinly; then, when large enough to handle, pricked off into other flat boxes 2 inches to 4 inches apart, and grown on in these in cold frames until April or May, or in some cases June, then planted out of doors into their flowering quarters. Among plants best treated in this way are Asters, Stocks, Antirrhinums, Ageratums, Verbenas, Balsams, Marguerite Carnation—that is, the annual one—Heliotrope, Marigolds, Dahlias, &c.

Then annuals have to be known and understood just as other plants, and grown in proper and suitable places to give proper effect. It would be unwise to grow the tall Larkspurs or the tall Antirrhinums or the tall Clarkia elegans in small beds, and useless to grow the dwarf Virginian Stock or the dwarf Tagetes signata pumila for tall effects at the back of long borders. I would suggest that varieties that are not known by the gardener sufficiently as to their habit and usefulness should be grown in the vegetable garden or some more or less out-of-the-way place the first year—not under trees, of course—where one can study them and their habits in order to know better another year how properly to utilise them. Plants so grown need not be wasted, for they will provide cut flowers for the house.

I will now explain what I understand an "annual" to be. The best definition, I think, is a plant which, if the seed be sown in spring, will bloom the same summer and will ripen its seeds in autumn. These may be called true annuals. There are many plants which are really perennials, but which may be used as annuals, even in this country with our short summer. Such are Pansies, Violas, Pentstemons, Verbenas, Antirrhinums, Dahlias, &c. These, when sown in a little heat in early spring, will bloom in summer and autumn, and are very suitable and useful for keeping up the summer and autumn display. ALFRED WATKINS.

FREESIAS.

I ENCLOSE for your acceptance a photograph of a small three-light brick pit full of Freesias. The photograph was taken on Good Friday last year, before cutting commenced. These plants were grown under the treatment described in my note which you published some time ago. At the present time the same pit is filled in the same manner; but the plants are stronger, many of the central heads having as many as twelve and some thirteen flowers on each. T. CARTER.

The Gardens, Butleigh Court, Glastonbury.

SNOWDROPS FROM SEEDS.

ALL admirers of the Snowdrop—and who is not among the number?—should seek to increase their stock and to improve the size of the flowers, and these may be reminded that by means of raising seedlings these aims may be secured, although some time will elapse ere the results are seen. The late Mr. James Allen of Shepton Mallet raised many lovely things among the Snowdrops, and this was mainly done by raising seedlings either from plants artificially crossed with other varieties, or grown from seeds of forms chosen because of their special size or beauty. This raising of seedlings is quite simple, and may be engaged in by many with but little room. As soon as the capsules of seeds begin to open, they should be laid upon a sheet of paper to allow them to drop their seeds. The latter may lie on the sheet of paper for about a week, and can then be sown in boxes, covering them with about a quarter of an inch of fine soil, and pressing this firmly down on the seeds. Then the boxes can be left on the shady side of a wall or fence, set on ashes to prevent the worms from getting into the boxes. The boxes may be left out in the open all the winter, and probably some of the seeds will germinate the first spring if the seeds are sown as soon as ripe. There should, however, be no hurry to disturb the seedlings, as some of the seeds will not germinate until the second, and a few not until the third spring. After a good many of the seedlings have appeared, a little fine soil should be put over them when they are at rest, and a little more each year afterwards until the bulbs are large enough to remove. This can be done when they are about the size of large Peas, and these can be planted where they are intended to bloom. If selection is desired, keep the seedlings in the boxes until they bloom, when the best can be selected when in flower, and either removed then or carefully marked for removal when at rest. The first of the seedlings will usually bloom the fourth year from sowing the seeds. The late Mr. Allen met with little success when he sowed his seeds in the open, but I have raised a considerable number in this way. The work is exceedingly interesting, and the results are often quite beyond expectation.

THE TRITOMAS OR KNIPHOFIAS IN EARLY SPRING.

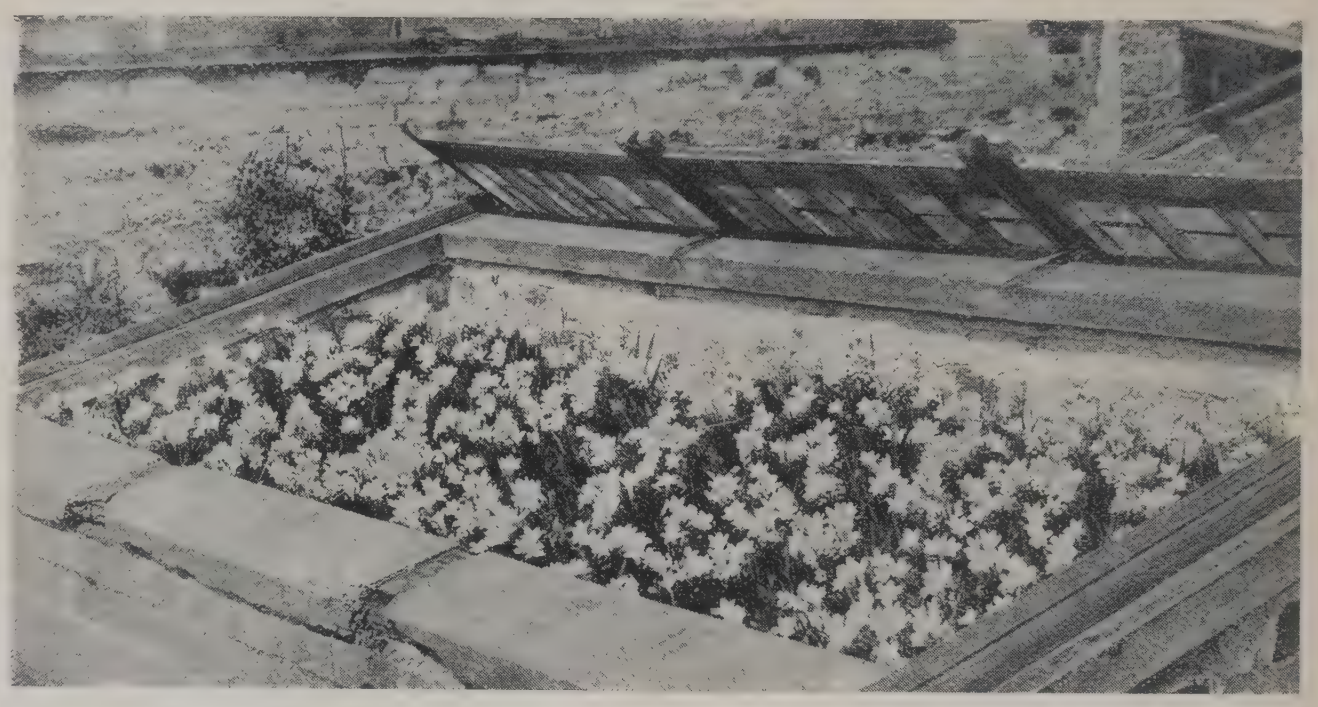
THE desire for tidiness in the garden is more frequently than is generally supposed the cause of losses among certain plants, and many growers in districts which suffer much from late frosts would act wisely were they to sacrifice some of this tidiness on the altar of Flora herself. In places such as these protection for early growth is urgently required, and the want of this is responsible for many troubles and losses among subjects which are hardy, in the ordinary sense of the word, if left to take care of themselves during the winter and early spring. But the worship of tidiness forbids, and the natural protection of the old leaves is cleared away in autumn, with the result that the young growths have no shelter whatever, and are cut by the late frosts of spring, if not by those of an earlier period. Among no plants is this more evident than the Kniphofias (still more generally known in gardens by the more agreeable name of Tritomas), which, from their Southern origin, may be expected to be, as they indeed are, a little more tender than some other subjects. In many places they are banned as being tender, but with a slight precaution or two they will stand our winters quite well.

In some parts of the Continent, where the winters are more severe than with us, they are planted with the crowns about 3 inches or 4 inches beneath the surface, and this is not a bad precaution to take, although not essential with us in general. What is required in our climate is sufficient protection to keep the early growths from being frosted, and this will be easily secured by leaving the old foliage on the plants until all danger from these late frosts is past. The most approved and neatest method is that of tying the old leaves together almost in the form of a sheaf. This is excellent; but I am now coming to the conclusion that a better, although not so neat, plan is to leave the foliage a little looser, so as to let more light and air in to the young shoots when they appear. When the old leaves are too closely tied up, the growths come pale and weakly, and if the covering is taken off too early they still suffer. The late frosts of last April and May were ruinous to some plants which had this protection removed too soon or which had been left too closely covered until just before these frosts. All this may seem hardly worth thinking about, but it is deserving of thought when plants are commencing to grow.

Dumfries. S. ARNOTT.

RAISING SWEET PEAS IN TURVES.

LIKE the writer, most Sweet Pea enthusiasts will have made their first sowing of seeds, but during the next two or three weeks numbers more will be sown in pots or the open ground



WELL GROWN FREESIAS IN BUTLEIGH COURT GARDENS, GLASTONBURY.

The former method I believe to be the wiser in the end, because it more quickly shows which seeds are going to fail, and, further, the young seedlings are more easily preserved from enemies, such as slugs and mice, than when exposed in the open ground. But perhaps some other readers of THE GARDEN would like to try a few seeds sown in the following way: Get some pieces of turf (for convenient working about 1 foot square will be found as handy as any), turn them grass side downwards, and in the soil embed the seeds, allowing each seed a square of 2 inches, which will cause the above-sized turf to accommodate thirty-six seeds, and afterwards place the same on pieces of boards in the frame or house. Directly the seedlings are well up take a strong, sharp knife and cut lengthways and crossways through the turves, so as to prevent the various rootlets becoming entangled with each other. Where this is not done, but the plants left to grow together, after-separation should be effected by pulling apart and not cutting. In every other respect treat as when sown in pots. At planting-out time, of course, there is no troubling with pots, as each little square is ready for its new quarter. This method may be new to some Sweet Pea growers, but it is a practice carried out on a larger scale by some gardeners with early culinary Peas. C. TURNER.

THE ROSE GARDEN.

MR. E. MAWLEY'S ROSE ANALYSIS, 1901—1908.

(Continued from page 98.)

TEAS AND NOISETTES.

MR. MAWLEY'S comments on the Tea Rose analysis are short. The table is not liable to the violent fluctuations that we find in the corresponding table that we have just considered, namely, the Hybrid Perpetuals and Hybrid Teas. I therefore give them in full.

"White Maman Cochet still deservedly heads the list of Teas and Noisettes, and is as yet without any serious rival for the premier position. This year it was not only much more frequently staged in the prize-winning stands than any other Rose in the show, but also more frequently than any Rose at any previous exhibition of the society.

"The only two varieties which have never before appeared in as many prize stands were White Maman Cochet and Mme. Jules Gravereaux. On the other hand, Mrs. Edward Mawley, The Bride, Catherine Mermet, Mme. Hoste, Souvenir d'un Ami, Golden Gate, Ernest Metz and Hon. Edith Gifford have never before been as poorly represented. The only varieties which were set up this year in twenty or more prize stands were White Maman Cochet, Mrs. E. Mawley, Mme. Jules Gravereaux, Maman Cochet, Souvenir de Pierre Notting, Comtesse de Nadaillac, Muriel Grahame and Innocente Pirola.

"There are again only three Roses in the table which are six or fewer years old, and which are consequently, according to the standard of age hitherto adopted, entitled to be regarded as among the 'newer Roses.' Souvenir de Pierre Notting (pale apricot yellow), a 1902 variety, has since last year risen from No. 7 to No. 5. There are no representatives for either of the years 1903 or 1904, but for 1905 we have Mme. Constant Soupert (yellow, shaded peach), which has also greatly improved its position since the last analysis, having risen from No. 31 to No. 16. The only other new Tea on the list is Mrs. Myles Kennedy, which on its first appearance takes up a place at No. 21."

The table proves that in calling 1908 "a White Maman Cochet year" I was not far wrong after all. What splendid flowers we saw of it right through the season! I have little doubt if a record was kept that this Rose would be found to easily head the list of medal winners as the best Tea Rose in the show and frequently the best Rose. Mr. Mawley points out that it secured two records at the "National"—(1) the most frequently staged exhibition Rose, (2) more frequently staged than any other Rose at any previous exhibition in the history of the society—and yet I will undertake to say that it is not the most numerously grown Rose; it is, I have always said, the most reliable, that is, tree for tree. You are likely to get from it a higher percentage of exhibition flowers than from any other variety I know. It has headed this table now for the last three years, and is so far ahead in the averages that its supremacy can hardly be threatened just yet. Mrs. E. Mawley is second, but her place is threatened by Mme. Jules Gravereaux, a Rose that is like White Maman Cochet in this respect, that is, it is one of the easy ones to grow (as exhibition Teas go). In 1905, three years ago, this Rose occupied the bottom position in the table, in 1906 it rose to fourteenth place, in 1907 it was fourth, and 1908 finds it third. I think 1909 will find it go one higher, that is, if it is a normal season, and there I hope and think it will have to stay.

Mr. Mawley has called this table of the Teas and Noisettes the "Conservative" table, because the changes in it were few and far between; but we find that old sorts drop out and new ones take their places. It is not very many years back since Catherine Mermet, The Bride and Bridesmaid were well up; now the three just find their way into the first dozen, and next year are hardly likely to occupy that position. Mme. Constant Soupert and Mrs. Myles Kennedy are bound to go higher; and then, among the new Roses this year are one or two Teas that will soon be asking for admission—Molly Sharman Crawford, for one, A. Hill Gray and Mrs. Campbell Hall, to mention others, although the last two are not yet in commerce. W. R. Smith (Mr. Pemberton, I believe, thinks very highly of this Rose) is a fourth. Then I have heard George Prince mentioned; but I am not sure that this is not a Hybrid Tea, although with such a name it surely ought to be a Tea and a good one too. Paula also will give us an exhibition flower sometimes, and so will Harry Kirk, so that 1908 has introduced us to a great many more new Teas of promise than we usually see in a twelvemonth; in fact, one Tea per annum is about the average, rather above than otherwise. The year 1901 brought us Mme. Jules Gravereaux; 1902, Souv. de Pierre Notting; 1903 and 1904 were blanks; 1905, Mme. Constant Soupert; 1906, Mrs. Myles Kennedy; 1907, Harry Kirk, &c., for which all Rose exhibitors will be thankful, especially as the new-comers have better constitutions and are altogether better growers than the majority of their fellows, with whom, I am afraid, moreover, the winter will have played havoc, so that there will be room this spring for a few of the new-comers, if only to fill up the blanks. I think when we come to prune we shall find more damage has been done to our Teas by the frost this year than for a good many years past.

H. E. Molyneux.

TEAS AND NOISETTES.

Position in Present Analysis.	*Average No. of Times Shown.*	*Times Shown in 1908 in Proportion to the Average.*	*Name.*	*Date of Introduction.*	*Raiser's or Introducer's Name.*	*Colour.*
1	69·8	80	White Maman Cochet	1897	Cook	White, tinged lemon
2	56·0	41	Mrs. Edward Mawley	1899	A. Dickson and Sons	Pink, tinted carmine
3	55·6	64	Mme. Jules Gravereaux	1901	Soupert et Notting	Flesh, shaded peach
4	51·5	61	Maman Cochet	1893	Cochet	Deep flesh, suffused light rose
5	33·0	31	Souvenir de Pierre Notting	1902	Soupert et Notting	Apricot yellow, shaded orange
6	28·4	32	Comtesse de Nadaillac	1871	Guillot	Peach, shaded apricot
7	26·6	18	Medea	1891	W. Paul and Son	Lemon yellow
8	26·4	14	The Bride	1885	May	White, tinged lemon
9	24·8	23	Muriel Grahame	1896	A. Dickson and Sons	Pale cream, flushed rose
10	23·9	13	Catherine Mermet	1869	Guillot	Light rosy flesh
11	23·6	19	Mme. Cusin	1881	Guillot	Violet rose
12	21·8	14	Bridesmaid	1893	May	Bright pink
12	21·8	26	Innocente Pirola	1878	Mme. Ducher	Creamy white
14	21·5	6	Souvenir de S. A. Prince	1889	Prince	Pure white
15	20·3	16	Souvenir d'Elise Vardon	1854	Marest	Cream, tinted rose
*16	19·0	19	Mme. Constant Soupert	1905	Soupert et Notting	Deep yellow, shaded peach
17	17·6	8	Mme. Hoste	1887	Guillot	Pale lemon yellow
18	16·9	7	Souvenir d'un Ami	1846	Belot-Defougère	Pale rose
19	14·0	7	Maréchal Niel (N.)	1864	Pradel	Deep bright golden yellow
20	13·8	12	Cleopatra	1889	Bennett	Creamy flesh, shaded rose
*21	13·0	13	Mrs. Myles Kennedy	1906	A. Dickson and Sons	Silvery white, shaded buff
22	11·8	9	Mme. de Watteville	1883	Guillot	Cream, bordered rose
23	11·3	5	Golden Gate	1892	Dingee and Conard	Creamy white, tinted rose
24	9·6	5	Ernest Metz	1888	Guillot	Salmon, tinted rose
25	8·3	5	Marie Van Houtte	1871	Ducher	Lemon yellow, edged rose
26	7·8	6	Princess of Wales	1882	Bennett	Rosy yellow
27	7·4	7	Caroline Kuster (N.)	1872	Pernet	Lemon yellow
28	6·9	2	Anna Olivier	1872	Ducher	Pale buff, flushed
29	6·5	4	Ethel Brownlow	1887	A. Dickson and Sons	Rosy flesh, shaded yellow
30	5·3	0	Honourable Edith Gifford	1882	Guillot	White, centre flesh
31	5·0	0	Niphetos	1844	Bougère	White

* New varieties, whose positions are dependent on their records for the 1908 show only.

PLANTING ROSES FOR CUTTING PURPOSES.

Before the season for planting is past (and I might here say that Roses may be planted quite till the middle of April), I would like to suggest that a reserve garden be planted, wherever space permits, to supply cut blooms in large quantities where such are in demand. The reason I suggest this is that I fear there are numbers of ladies and gentlemen keenly disappointed at the poor success of their plants, owing, in many cases, to the cruel cutting away of the long growths in the height of the growing season to supply the demands of the house for long-stemmed Roses. I have been told by many gardeners that they have been obliged to renew the Rose beds very frequently solely owing to this severe cutting.

Now, while I advocate a free use of the knife at the proper pruning-time, in order to maintain a healthy growth from the base, nothing, in my opinion, can be more reprehensible than the wanton slashing away of the growths at a time of year when the plants can ill afford to lose them. I wonder if the public ever realises that those glorious displays of bunches of Roses put up at the Rose shows, together with a hard cutting away of wood for budding, mean a quantity of debilitated plants in the autumn. Instead of encouraging these exhibits, I maintain they should be discouraged and some other method adopted of displaying the beauties of the decorative Roses. Now quite a number of plants may be placed in the kitchen garden in odd lines that may be cut at as much as one likes, for they could easily be renewed every other year, and the expense would be trifling compared to the pleasure derivable from seeing grand beds of Roses in their full vigour and beauty.

P.

THREE USEFUL ROSES.

Among the most beautiful Roses we have, one must include Rosa sinica Anemone and Macartney; but they are both, unfortunately, very tender, and only under quite exceptional conditions can we see them at their best. Fortunately, we have some newer varieties that are quite hardy, of extra strong growth, certain to bloom every season, and that afford us the same delicate colours. R. sinica is also known as lævigata, Camellia du Japon and the Cherokee Rose. It is a very large white flower, while another named sinica Anemone is silvery pink, shaded with rose. The Macartney Rose has a second name in Rosa bracteata and is pure white, while all of them are single. Now, in place of old favourites that elude us season after season I would strongly recommend Una, Jersey Beauty and Evangeline. The first gives us almost a white flower about 3 inches across; the second, a very pale primrose yellow; and the last, a charming silvery white, flushed with the same satiny rose found in sinica Anemone. All three are very large, exceptionally hardy, of strong and rampant growth, and flower very freely upon the long rods of last season's wood.

A. P.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Where Ivy has become overgrown the present is an excellent time for cutting it back, as new growths will quickly be formed and the plants remain bare for a short time only. Where growing on dwelling-houses or other buildings it is frequently advisable to cut it back close to the

1.—A DWARF ROSE WHICH HAS BEEN NEGLECTED AS REGARDS PRUNING.

wall, and care must be taken to remove any shoots that have pushed under the slates or tiles and also beneath piping or troughing, otherwise much damage will be done. If an annual cutting back is not resorted to, the growths afford excellent leverage for the wind, by which agency they frequently become detached from the wall. Carnations which have been wintered in cold frames may now be planted out in beds that have been prepared as advised in a previous calendar. Make the soil firm around the roots of each, and delay planting for a few days if the soil is very wet and cold. Pansies and Violas, too, may be put out in their permanent quarters forthwith, but they should have been grown quite hardy in the cold frames, otherwise if cold weather prevails they will probably suffer.

Vegetable Garden.—This is now a very busy department, as during fine weather seed-sowing will be in full swing. Further sowings of Peas may be made, still choosing an early wrinkled variety. Onions, Carrots, Lettuces and Radishes for succession may all be sown in prepared beds in the open whenever the soil and weather permit. Seeds of Cauliflowers and Brussels Sprouts should be sown thinly in shallow boxes of good soil and these placed in a slightly heated or cold frame; the last named especially require a long season of growth if large stalks are desired, and early sowing is therefore essential. Autumn-sown Onions, if not transplanted last October, should be put out now in rows 15 inches apart and the plants 9 inches asunder. Where space is none too plentiful, a row of these may be planted between each two rows of newly planted Strawberries, or Lettuces or Radishes may be sown in similiar positions.

Fruit Garden.—Generally speaking, amateurs' Vines will now be starting into growth, and it is essential at this period to keep the atmosphere of the house moist and maintain a temperature of 50° to 55°. Syringe the rods morning and afternoon with tepid water, and also damp the paths, floor, walls and staging. On bright, sunny days it will, perhaps, be necessary to give a little air, especially where other plants are grown in the vinery; but cold draughts must be avoided and the ventilators closed early in the afternoon. Black Currants are now usually affected by the big-bud mite, whose presence in the buds is made known by the latter becoming rounded in shape and much swollen. All such should be picked off, dropped immediately into a vessel containing paraffin and eventually burned. Then dust the bushes when damp at fortnightly intervals till the end of April with a mixture of air-slaked lime and flowers of sulphur, 1 lb. of the former to 2 lb. of the latter. The old-fashioned Black Currants which are usually grown in cottage gardens, though producing only small fruit, are rarely attacked by this insidious pest, and those beginners who possess such should be careful not to introduce to their gardens more up-to-date sorts which are attacked by it.

Greenhouse and Frames.—Many old bedding plants, such as Iresines, Lobelias, Verbenas and Coleuses which have been retained through the winter will by now possess excellent young shoots for making into cuttings, and as these become ready they should be dealt with. Shoots from 2 inches to 4 inches long, according to the kind of plant being dealt with, are best, and these should be cut off level just beneath a joint, the lower leaves removed, and then dibbled into well-drained boxes or pans of rather sandy, finely sifted soil, which has been made firm. From 2 inches to 4 inches apart, according to their size, is a good distance to plant the cuttings, after which they should be watered in and stood in a warm, shaded corner of the greenhouse, or in a hot-bed frame if such is available. Asters and Stocks may well be sown now if the work has not already been done. Fill some well-drained shallow boxes or pans with sandy finely sifted soil, in which some flaky leaf-soil or dry manure has been incorporated, and scatter the seeds thinly, covering them with about a quarter of an inch of soil. Water carefully and cover each with a pane of glass or brown paper, and stand in a warm frame or greenhouse. As soon as the seedlings are up remove the glass or paper, give all the light and air possible and be particularly careful with the watering, otherwise serious losses will occur. The Victoria and Comet Asters are best, and for a good Stock I should choose Webb's Admiration. It grows 18 inches or rather more high, branches well and is excellent for cutting purposes; unlike the old Ten-week Stock, it continues to flower over a long period. H.

METHODS OF PRUNING DWARF ROSES.

THIS is a subject of which the beginner usually knows very little, and because of want of knowledge the bushes suffer very much. Roses differ in their character, each type requiring somewhat different treatment; but it is possible, even with the multiplicity of Roses, to adopt a general system of pruning which may apply to dwarf Roses as a whole. There is a tendency with amateurs to fear the free use of the pruning knife, and because of this timidity on their part the Roses in their gardens frequently present anything but a pleasing appearance.

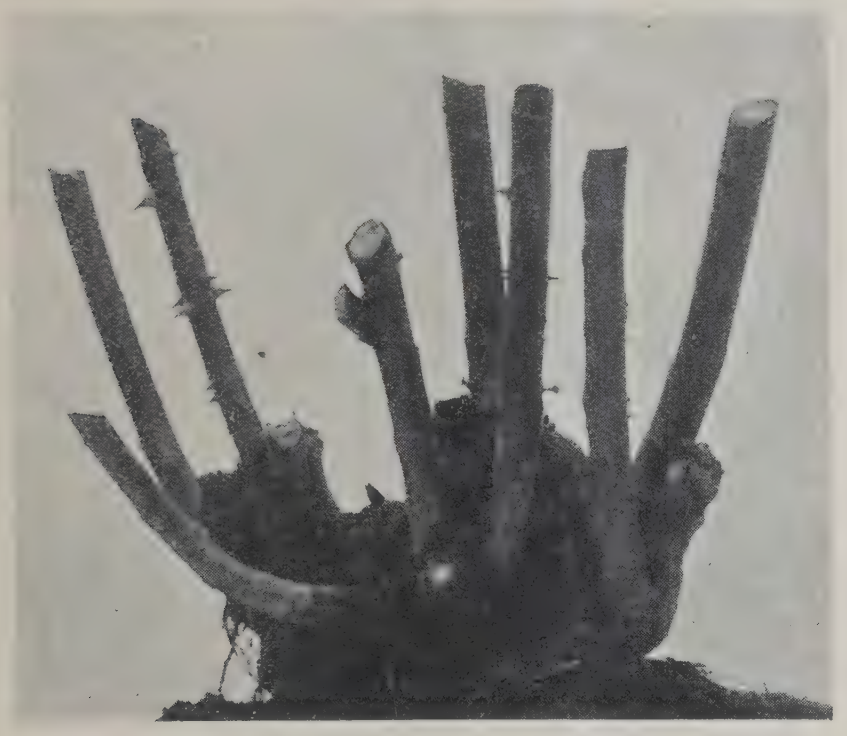
It is important, to begin with, that a pruning knife be procured from a firm with a good reputation. The edge should be sharp, so that the cuts may be made perfectly clean and that the work may be done more easily. This usually answers better than sécateurs in the hands of the amateur. A pair of gloves is also essential, as it is impossible to handle the thorny growths with naked hands.

In pruning Roses we first have to consider what is the object we have in view. If it is intended to grow our dwarf Roses for beautifying the garden and to provide a free display of small to medium-sized blooms, the pruning will necessarily be less severe than would be the case were the same plants required to produce large, exhibition flowers. As most beginners aim at producing beautiful effects in their gardens, we will assume that decorative effect is their chief ambition. For this reason we have depicted in Fig. 1 a dwarf Rose that has been sadly neglected. A careful inspection of the picture reveals the fact that the old growths have only been partially cut back, and that there are many other growths of little value to the plant. Assuming that Roses of a decorative character are desired, it would be necessary to shorten back the growths to some eight or nine eyes, or what are known as dormant buds, as it is from these dormant buds that

2.—THE SAME BUSH AFTER BEING PRUNED FOR DECORATIVE EFFECT.

growths for the succeeding season are to be evolved. We are quite aware that many Rose-growers would take exception to retaining so much of the growths as depicted in the illustration; but for creating a free display of dainty, decorative Roses this method of pruning will give satisfactory results.

Fig. 2 illustrates how this should be done. A careful comparison between Figs. 1 and 2 will clearly indicate where the cuts—which should be made in an upward direction—should be made. Always see that the cut is made so that the



3.—THE SAME PLANT PRUNED FOR PROVIDING EXHIBITION BLOOMS. NOTE THAT THE GROWTHS HAVE BEEN CUT BACK CLOSER.

dormant bud is left on the outside of the growths. This is important, in view of the shapely plant we desire to bring into effect and in order that light and air may get well into the centre of the plant. Not only should the more promising growths be cut back as illustrated, but the old, sappy and twiggy growths should be cut out, cutting them low down, as also shown in the illustration. It is astonishing what a lot of old, useless growths may be cut out in this way; in fact, it is possible to quite alter the character of the dwarf Rose when this method of pruning is adopted.

On the other hand, should the grower desire to produce blooms of good quality, a more drastic system of pruning must necessarily be adopted. For this reason we have depicted in Fig. 3 the same plant as represented in Figs. 1 and 2, but more severely pruned. Here, it will be observed, there are about two or three eyes or dormant buds left on each portion of the growth retained, in consequence of which the growths that subsequently evolve will break away very strongly indeed and produce growths capable of evolving flowers of high quality.

We have illustrated in Fig. 4 the treatment necessary to be meted out to a young dwarf Rose. Here, it will be observed, the plant is represented by three growths, two of which were evolved last season, the third one in the centre being the original growth. In order that the foundation of a good plant may be laid, it is necessary to cut out the old shoot right down to its base, as shown, and to shorten back the others to three or more eyes, according to the object that the grower may have in view. It may seem to be a drastic thing to do to cut back the branches in the way we have shown in the illustration, but this is the only really satisfactory way of ensuring the development of stout, healthy growths, from which good flowers can be obtained. The second item in Fig. 4 reveals the plant after the manipulation of growths in the manner we have just indicated.

If we wanted to be more specific respecting the methods of pruning, we should deal with each type of the Rose by itself; for instance, there are some of moderate growth, those that make growth of medium character, and those, again, that may be classified as vigorous. Were we to deal with these fully, we would recommend, especially in the case of Hybrid Perpetuals, that those of moderate growth should be pruned back to 2 inches or 3 inches of their base, removing at the time all soft and pithy shoots. In the case of those of medium growth, the strongest shoots should be cut back to within 5 inches or 6 inches of their base, removing also in this case as before the soft and pithy wood. Those of a more vigorous character should be cut back to within 8, 10 or 12 inches of their base, and the results will then be quite satisfactory. In the case of Hybrid Teas, those of weak and moderate growth are better when the previous year's growths are cut back to from 2 inches to 4 inches of their base; those of medium growth to, say, 5 inches or 6 inches; and the more vigorous-growing plants, of which there are a goodly number, cut back to within about 8 inches or 10 inches of their base.

D. B. C.

CALCEOLARIAS FOR BEDDING-OUT.

YELLOW-FLOWERED Calceolarias are very extensively grown for the embellishment of the flower garden; the dark brown variety is not in evidence now as much as formerly, but it is a beautiful flower and deserves to be widely grown. The latter, however, is more tender than the former. The bedding-out Calceolaria is an amateur's plant; it is easily kept during the winter time in cold frames, which can be covered with straw or mats while severe frosts prevail. Very often the greatest difficulty with these plants is experienced during the early summer months, when they die suddenly, and no amount of care at that time will save the affected plants. I have had considerable experience in the growing of the plants for the filling of the beds in summer, and at one time lost a number of plants soon after they were put out. Then I tried an experiment, which gave me the clue to their right treatment. I will here briefly state how I treated the plants. The cuttings were inserted in a firm, sandy soil in September. Every cutting was as strong as possible and taken from the base of the parent plant. Frost only was excluded from the cuttings; at other times the lights were entirely removed if the weather was mild, the object being to keep the young plants very sturdy. Towards the middle of March they were transplanted in a duly prepared bed with rotted manure in the bottom, and only protected with a rough frame and mats on the top of it when the weather was unfavourable. Directly the plants had become well established in their new quarters, the tops were pinched out and side shoots quickly grew, forming very strong, bushy specimens by the end of April, when they were planted in the beds in the flower garden. Care was always taken to put in the plants the same depth each time, the stems not being buried at all. The result of this treatment was a grand display of flowers on large, healthy specimens. It is a mistake to unduly coddle these plants and put them out, finally, very late in the season, say, the end of May or early in June.

PEACH AND NECTARINE TREES IN SPRING.

WHEN grown under glass these trees are entirely dependent upon the attention of the cultivator, and any neglect on his part may prove very harmful. Ventilation and watering are the two items which must be regularly attended to in the case of trees growing in glass structures. Those growing in the open air receive rains and the shoots do not suffer through lack of air, though very often from cold east winds. The cultivator certainly has a much better opportunity of growing fine specimens of fruits on indoor trees than on those in the open air, and this opportunity must be taken full advantage of. I will give a few brief hints on the chief points connected with the management of these trees under glass at this season of the year.

Ventilation.—Now it is much safer to grow the new shoots and fruits steadily than to unduly force them. Hard forcing must only be resorted to in exceptional cases. When the buds commence to swell and the flowers to open, maintain a nice current of air through the house. Some draught will be created—it cannot well be avoided—but by admitting air judiciously harmful draughts will not occur. Open the ventilators at the top of the house first and gradually increase the amount until the middle of the day, when it should be as gradually reduced. The front ventilators must only be opened on mild days when the sun shines brightly. In this way the young leaves will be kept robust and the fruits will set freely.

Watering.—I will draw attention to the manner in which a pot plant is watered. The soil in the pot is thoroughly saturated before it becomes very dry. A careful watch is kept upon the soil in the flower-pots. Now, this is just what is required on the part of the cultivator when dealing with these fruit borders. When the soil is getting a trifle dry, apply tepid water in sufficient quantity to thoroughly saturate the border soil down to the drainage, and then repeat the dose when necessary. It is a mistake to saturate the surface by constantly damping down from a fine-rosed watering-can and at the same time allow the soil in the lower part of the border to become almost dust-dry.

Syringing.—There is no need for much syringing before the leaves are well developed. At first the syringing must be done with a view to the softening of the buds and to keep the young leaves free from aphis. By sunset all leaves and shoots must be quite dry.

Heating.—Both Peaches and Nectarines do well in unheated houses, but where fire-heat can be used it is very beneficial. The pipes must be warmed as the evening draws near, and be kept warm all day in dull, cold weather. As stated above, ventilators must be closed early in the afternoon as by so doing sun heat will be conserved to the advantage of the trees.

SHAMROCK.

4.—ON THE LEFT IS SHOWN A YOUNG DWARF ROSE BUSH PREVIOUS TO PRUNING, AND ON THE RIGHT THE SAME BUSH IS SHOWN AFTER PRUNING.

THE TOWN GARDEN.

PLANT ANEMONES AND RANUNCULUSES.—The tuberous roots of these plants may be put into the borders any time from the autumn to April. Where very dry, sandy soil obtains, the roots may be planted in the autumn, but in the case of heavier loam, that which inclines to clay, spring planting is the best. The St. Brigid Anemone is a most charming variety; the large, semi-double flowers are freely produced, nestling among beautiful Fern-like foliage, and the colours are greatly varied, some flowers being intense scarlet, others purple and pure white, and delicate shades of other colours. The French Ranunculuses (asiaticus superbissimus) are free-flowering, give many colours and are very fine indeed. The double Persian, and the double Turban in scarlet, white and yellow, are all worth growing and deserve very good treatment. Of course, the cultivator may have his plants in rows or clumps. Having determined the positions for the plants, put in the roots as follows: If in rows, make these 15 inches apart in the lightest soil of the garden, and put in the roots with the claws downwards (in the case of the Anemones especially) 6 inches apart, and bury them 2 inches deep. If the roots are to be grown in clumps, place from five to a dozen 9 inches apart each way in the clump, and cover them the same depth as those in the rows. Label the clumps and rows at once to prevent injury to the roots before their growth appears.

PREPARE TUBS AND WINDOW-BOXES.—In many town gardens tubs filled with flowering plants, and boxes placed in the windows, also containing flowering and foliage plants, form very charming features. The time will soon come when it will be necessary to think about the actual planting of the various subjects in them, and it must find the gardener ready. Fix upon the sites for the tubs now, and also procure the latter and get them painted dark green or brown on the outside, but slightly char the insides. The best way to char the wood is to take the tubs to an open space, put in some paper or shavings, and then set fire to the material; allow the wood to burn until the surface is nicely charred, and then either throw a piece of old sacking over the tub or, with a long stick, turn the tub over and smother the fire. Several holes should be made in the bottom of each tub and, in addition, clinkers, cinders, or broken bricks must be put in to form efficient drainage; superfluous water must not be allowed to remain in the compost, or it will render it sour. Then there is another important point, namely, the protection of the tubs from decay, and to this end three tiles or bricks must be placed in position for the tubs to rest upon. It would be a wise plan to at once prepare the tubs and mix the compost, so that the work of planting may be quickly done when the time comes. Keep the compost in a cool position and protect from the rain.

SWEET PEAS.—It is not too late to sow seeds of Sweet Peas; in fact, where the soil is of a cold, clayey nature, there is some advantage in sowing seeds now, if plants raised in pots are not available. The resultant plants from present sowings root more freely and become established sooner than those from January and February sowings in similar circumstances. Dig the ground deeply, at least 20 inches, break up the soil thoroughly, and mix some well-decayed manure with the soil. Very fine Sweet Peas may be grown by using superphosphate and chemicals solely; but finer ones result when the plants are well started with rotted manure, which induces strong haulm and leaves. There are many walls—division walls—and similar low fences in town gardens, and Sweet Peas do very well indeed when grown on the north side of such fences. Sow the seeds 4 inches apart in zig-zag rows, and cover them about 3 inches deep with the finer portion of the soil. AVON.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

ROSES.—Owing to the frost and general severity of the past winter, Roses, especially some of the more tender varieties which may not have been well protected, will have been more or less injured. Before commencing to prune, a thorough examination should be made to ascertain the damage done. The breaking of the buds will show where the living parts are, and the shoots should be pruned accordingly. Tender Teas which were planted rather deep last autumn or protected with leaf-mould about the collar to preserve the lower buds should be relieved of this protection when the danger of frost is past, removing the material gradually as the days lengthen. In pruning Hybrid Perpetuals choice should be made of the strong growths, cutting back these to five or six buds and the weak inner growths to three buds. Of course, all pruning should be regulated according to the size of the bushes required. The beds, as soon as the pruning is finished, should be lightly forked over, top-dressed if necessary, or mulched over with good farmyard manure.

Clematises.—These may be planted when the soil is in a suitable state. Let the roots be disentangled if the plants have been growing in pots, spread them out evenly and cover them with good soil. When preparing the station see that the drainage is good and the soil suitable.

FRUIT GARDEN.

Raspberries.—There is still time to make fresh plantations. The land should be well worked and enriched with good manure and wood-ashes, the quantity being regulated according to the nature and condition of the soil. Cut down all newly planted canes to within a few inches of the ground. Mulch well over and about the roots with decayed manure, and if the weather in April proves dry a good watering may be essential; this applies to all late spring-planted fruit and other trees.

Outdoor Figs.—These may now be pruned and put into order, the shoots likely to produce the most fruit being ascertainable. Fig trees require ample extension to bring them into bearing. When the head room is rather limited and the wood produced is too strong to be fruitful, root-pruning must be resorted to. Figs do best when planted in a very firm soil, with plenty of old brick-mortar and chalk added. When pruning be careful not to shorten back the sturdy, fruitful shoots, which should be secured at intervals all over the trees. For outside cropping Brown Turkey is probably the best and most reliable.

Alpine Strawberries.—These may, if desired, be raised from seed, which should be procured from a reliable firm and sown in pans well drained and filled rather firmly with a sandy soil. Do not sow the seed too deeply, and stand the pans in gentle warmth. Place a sheet of glass over them and cover all with a piece of brown paper till the tiny seedlings appear.

VEGETABLE GARDEN.

Asparagus.—As soon as the land is in a fit state the work of making fresh beds should not be delayed. Set out the beds and trench them, using plenty of manure, wood-ashes and a little salt. The width of each may be from 3 feet to 5 feet, with an alley 18 inches to 2 feet between each two. The best time to plant is as soon as the new growth is about 1 inch long, this being generally early in April.

Seakale.—This for a late supply is best when covered rather deeply with leaf-mould or earthed up like Celery; the former plan we usually adopt with good results. New beds to take the place of old roots may be deeply trenched ready for planting when the weather is suitable. Pieces taken from the roots lifted for forcing, made into lengths of about 6 inches and planted with the top end 2 inches below the surface, make fine crowns by the end of the season. In most gardens a fresh stock is obtained from a different locality.

H. MARKHAM.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

ORCHIDS.

CYPRIPEDIUM INSIGNE.—The plants of this old favourite having flowered, any division of the older stock or potting on of others that are likely to require it before another season should be carried out whenever renewed growth appears. A mixture of fibrous loam and peat in about equal parts, from which all the finer particles have been removed, may form the staple, to which may be added some chopped sphagnum and a few pieces of clean crocks and charcoal. As long-established plants eventually become very much pot-bound, division can be accomplished only by using a sharp cutting instrument. This done, each severed portion should have the damaged roots pulled away and be deftly placed in clean, well-drained pots or pans and have the compost placed firmly around. A warm, moist house or pit wherein to place plants thus treated until growth is again established is very helpful to the rooting process.

Cattleyas making new roots may have the present surface-dressing removed and any inert material immediately beneath picked from between the roots with a pointed stick, after which well-selected sphagnum and nodules of peat make the best replenishment. Cattleyas, Lælias, Dendrobiums and the newer forms of Cypripedium require a temperature of from 55° to 60° at night, with a substantial rise by day. As the sun gains in power more moisture may be used, damping the pots and stages in preference to frequent supplies at the roots. Plants in flower may with advantage have the coolest end of the house, taking care that neither drip nor moisture in any other form obtains a lodgment upon the open or opening blooms.

FORCING DEPARTMENT.

Strawberries.—As the fruit upon the earliest plants changes colour, manurial stimulants are best reduced, or, if quality rather than size is the object, entirely withheld. Successional batches will require much attention as regards watering. Weak applications of manure twice a week are ample, and if pans are used beneath the plants these should be emptied occasionally. In thinning the fruits twelve may from now onwards be left upon each plant. Long-stemmed varieties, of which Royal Sovereign is a type, require support for the fruit-trusses, and a forked stick inserted in the soil at a convenient angle will accomplish this.

Cucumbers and Melons recently planted should be tied to the trellis as the shoots advance and overcrowding of the foliage be carefully guarded against. In watering the latter, a space around the stem of each plant should be kept dry and chilled water be used at all times.

Dwarf Beans.—The earliest sown may now have soil added to nearly fill the pots and, if thought necessary, some form of support afforded the tops. Being very subject to red spider, the use of the syringe and tepid water should not be neglected, to aid which the positions of the plants should frequently be reversed. Sow for succession according to demand and space at disposal.

FLOWER GARDEN.

Roses.—Planting unfinished may yet be done. With budded plants the point of union should, if

possible, be covered with the soil to facilitate the emission of roots from the scion. Pruning may be commenced with the Polyantha section, which requires free thinning out of the weaker growths rather than hard cutting in of any that are stronger. Hybrid Perpetual and Tea varieties may be left until last, but all should be completed early in April.

THE FRAME GROUND.

Plants of Calceolarias, Antirrhinums, Pentstemons and Violas occupying frames where wintered as cuttings should be transplanted to a position where temporary protection can be afforded. The time and labour thus expended are amply repaid at the final planting out, when well-rooted bushy plants contrast very favourably with others not so transplanted. Violets in frames are now safe from damp, consequently covering to cast off rain is of less importance. Remove decaying foliage and stir the surface soil weekly to promote health.

JAMES DAY.
(Gardener to the Earl of Galloway.)
Galloway House, Garlieston, Wigtownshire.

THE EDITOR'S TABLE.

SWEET VIOLETS FROM SHREWSBURY.

Mr. J. Lawless, head-gardener to Sir Walter Smythe, Bart., Acton Burnell, Shrewsbury, sends us flowers of double and single Violets, which are very fine indeed, particularly those of Princess of Wales and Swanley White. He writes: "I send you a few Violets for your table. The varieties are Princess of Wales, Mrs. J. J. Astor, Swanley White, Lady Hume Campbell and Marie Louise. The present season has proved so far rather a trying one, due to lack of sunshine, and my experience of the mentioned varieties proves they are the most reliable."

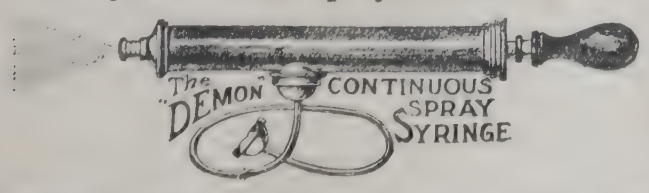
CARMINE CUP FUNGUS FROM WORCESTER.

Mrs. Mack of Kyre-Wyard Rectory, Tenbury, Worcester, writes as follows: "I am sending some cup moss, as I think the size may be rather unusual. Quantities of it grow on a damp mossy bank in a wood at Kyre, varying in size from tiny cups to quite large ones, some opening nearly flat, and these are often uneven in shape; the small cups are quite perfect."

[This is the beautiful carmine cup fungus, known scientifically as Geopyxis coccinea, and forming one of the conspicuous objects of the country in the early spring. The cups are the fruit of a fungus which grows for a time within the tissues of fallen sticks, and bears its numberless spores in the cells which make up the cup-shaped fruit. The spores may often be seen to issue like a little cloud from the surface of the cup if the latter be breathed upon. The whole thing makes a very beautiful and decorative object, bedded as it is among the bright green moss.—ED.]

A NEW AND VALUABLE SPRAYING SYRINGE.

WE have recently been experimenting with a new spraying syringe, manufactured by the Boundary Chemical Company, Limited, 27 to 31,



Cranmer Street, Liverpool, and called the "Demon" Continuous Spray Syringe. For this valuable garden tool we have nothing but the highest praise, as, after testing it very severely, we have found it satisfactory in every respect. A piece of hose-pipe some 4 feet long is attached to a valve in the side of the syringe, the other open end, which is protected by a fine wire strainer, being placed in the bucket or other receptacle containing the insecticide. Then by steadily working the plunger a continuous, fine, yet forcible spray is produced, much the same as is obtained from the valuable knapsack sprayers now so well known. The spraying nozzle is fitted with a bend, so that the under-sides of the leaves can easily be reached. We think this syringe will supply a long-felt want in those gardens where an efficient yet inexpensive spraying apparatus is needed. In addition to its spraying powers, this syringe may also be used for ordinary syringing by simply removing the spraying nozzle, a continuous jet of water being thrown a distance of at least 12 feet.

NEW PLANTS.

SOPHRO-CATTLEYA THWAITESII. — This is an exceedingly pretty and well-shaped member of a bigeneric family. The sepals are rather narrow, the petals being very much broader, the colour of each being a beautiful cerise; the sepals are slightly tinged with cream. The labellum is the most conspicuous, this being rich bright yellow in the throat, edged with cerise, this colour deepening to almost crimson at the lower portion of the lip. Shown by R. G. Thwaites, Esq., Streatham. First-class certificate.

Brasso-Cattlælia Cooksonii. — A beautiful flower, which has much of the character of Cattleya aurea in it. The lanceolate petals are reflexed at the edges, these, the petals and labellum all being of a sort of terra-cotta colour, a golden yellow line showing up more conspicuously in the sepals and lip, the latter organ being moderately well fringed. It is the result of crossing Brasso-Lælia Gratrixiœ, itself a bigeneric hybrid, with Cattleya. Shown by Messrs. Charlesworth and Co., Hayward's Heath. Award of merit.

Brasso-Cattleya Cliftonii magnifica.—A very appropriately named variety, the flower seen on the plant being truly magnificent. It has rather narrow sepals but enormous petals, both being pale mauve in colour. The large, tubular labellum is beautifully crimped and fringed, the colour at the base of the throat being dull carmine. This is succeeded by a patch of deep lemon colour, followed on the most exposed part with a large blotch of rich carmine, the whole being edged with pale mauve. Shown by Messrs. Charlesworth and Co., Hayward's Heath. First-class certificate.

Odontioda Bradshawiæ Cookson's variety.—Without a doubt this is the finest Odontioda yet exhibited. The flowers are large, of splendid form and of unusual colour combination, the usual brick red hue of each segment being surrounded by a margin of purplish violet, a patch of rich yellow being placed in the centre of the labellum. Shown by N. C. Cookson, Esq., Oakwood, Wylam. First-class certificate. (See page 137.)

Odontoglossum myonianum.—A very large-flowered specimen, the pure white blossoms being freely dotted at the base of each segment with a cluster of irregular dull carmine spots, a pale yellow blotch being situated at the base of the labellum. Shown by J. Gurney Fowler, Esq., South Woodford. Award of merit.

Cattleya Trianæ Grand Monarch.—A very large and richly-coloured variety of a well-known and deservedly popular Orchid. The sepals are of the usual narrow type, but the petals are exceedingly large, the colour being a very deep bright purplish or rosy mauve. The labellum is large and beautifully coloured, a rich golden patch being placed in the throat, the apex being of the brightest and richest carmine crimson possible. Shown by F. Menteith Ogilvie, Esq., The Shrubbery, Oxford. First-class certificate.

Cattleya Schröderæ Mrs. F. Sander. — A beautiful large-flowered pure white variety, with the exception of a rich yellow blotch extending from the centre of the labellum well into the throat. Shown by Messrs. Sander and Son, St. Albans. First-class certificate.

The following Narcissi received commendations as forcing varieties:

Narcissus Circlet.—A large, circular flower with broad, overlapping perianth segments and large, shallow crown, shaded with orange. Shown by Messrs. Cartwright and Goodwin, Kidderminster.

Narcissus Queen of the West.—A splendid Ajax Daffodil of clear uniform yellow tone and a giant among big trumpet sorts. This, we feel sure, is destined to become a standard sort among market Daffodils, and the plant is of great vigour. Shown by Messrs. Walter T. Ware, Limited, Bath.

All the foregoing were shown before the Royal Horticultural Society on the 9th inst., when the awards were made.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Plants for a tank (*Penwarre*). — Your tank is not large enough for more than two Water Lilies and, say, a clump of Arums. The two most suitable Water Lilies are William Falconer (red) and William Gladstone (white). They may either be planted on mounds of soil or in large pots; the latter is the method which we suggest for your special conditions. Pots 1 foot in diameter would do, or pans 15 inches in diameter and 1 foot deep would be suitable. The Pine needles you speak of ought to be cleaned out once a week. If this is done no injury to the plants ought to occur. With regard to soil, if you use pots no soil will be required in the bottom of the tank. If you decide on mounds of soil, make a mound for each plant 2½ feet in diameter and 1 foot in depth. The water ought not to be less than 2 feet in depth or more than 3 feet. Under your conditions the water ought to be changed at least once a week during spring, summer and autumn. The flow of water in wet weather ought not to injure the plants. The tank ought to be thoroughly scrubbed out at least once a year, and new soil must be given to the plants. February or early March is a good time. The boggy ground you speak of could be utilised for such plants as Iris sibirica, I. lævigata, Primula japonica, Senecio clivorum and Lythrum salicaria. Good loamy soil is suitable for the plants.

Chrysanthemums for India (*Rob Roy*).—We are very pleased to answer your queries through the medium of THE GARDEN, and hope that in giving the selections you ask for they will prove useful not only to you but to other readers in India. At your request we have eliminated weak growers from the varieties in the list herewith, but fear we can hardly place the varieties in their order of merit. In almost all sections the varieties are among the best of those now generally cultivated. Thirty Japanese: F. S. Vallis, Mrs. A. T. Miller, Bessie Godfrey, Mrs. George Mileham, Mrs. F. G. Coster, Algernon Davis, W. A. Etherington, Lady Talbot, Mrs F. W. Vallis, Marquis of Northampton, Mrs. Charles Penford, Mme. Paolo Radaelli, Mme G. Rivol, Reginald Vallis, Mrs. Norman Davis, J. H. Silsbury, Lady Hopetoun, Mrs. H. Barnes, Henry Perkins, Edith Jameson, Walter Jinks, F. W. Lever, C. H. Totty and Mrs. Barkley. To complete the thirty Japanese we append the six best novelties of the

past season, *i.e.*, The Hon. Mrs. Lopes, Lady Crisp, Master David, Sir Frank Crisp, James W. Molyneux and Mrs. W. Iggulden. Eighteen incurved: Buttercup, Mrs. J. Hygate, Duchess of Fife, Daisy Southam, C. H. Curtis, Frank Trestian, G. W. Matthews, Mrs. Barnard Hankey, Mrs. J. Wynn, Miss Nellie Southam, Lady Isobel, Embleme Poitevene. Mrs. G. Denyer, Amber Beauty, Comtesse d'Estoile, Pink Pearl, Le Peyron and Mrs. F. Judson. Twelve reflexed—these are seldom met with nowadays, but the following are the better varieties: King of Crimsons, Dr. Sharpe, Cullingfordii, Chevalier Domage, Dorothy Gibson, Emperor of China, Marquis de Clappiers, Golden Christine, Pink Christine, White Christine, Peach Christine and Golden Elsie. Twelve spidery: Mrs. Filkins, Mrs. James Carter, King of Plumes, Jessie Madeline Cole, Cheveaux d'Or, Sam Caswell, Mrs. W. Butters, Crimson Tangle, Mignonette, Golden Thread, Jitsujetui and Cannell's Favourite. Twelve Pompons: William Westlake, Prince of Orange, Rosinante, Harry Hicks, Mlle. Elise Dordan, Osiris, William Kennedy, Nellie Rainford, Mlle. Martha, Golden Mlle. Martha, Rose d'Amour and Mrs. Bateman. Six hairy varieties: Hairy Wonder, Princess Henry, Mme. Secareck, Louis Boehmer, Beauty of Truro and F. J. Taggart.

ROSE GARDEN.

Growths from Rose cuttings for inspection (*B. T. F.*).—The large, wart-like growths at the bases of your Rose cuttings are what are usually known as callus, which in your examples has developed to an abnormal size. It is caused by an accumulation of plant food at the point where the shoot was cut, and it is from this substance that new roots are usually emitted.

List of fragrant autumn-flowering Roses for India (*Rob Roy*).—A large number of the most fragrant Roses are to found among the Hybrid Perpetual group, but these are not so suitable for India, neither are they the best autumnal-blooming sorts. We have, however, included some of the best, and have pleasure in submitting a list of three dozen sorts as requested. It must be remembered that the double Roses succeed best in a hot country; we have therefore kept that in mind in the lists. Hybrid Perpetuals: A. K. Williams, Charles Lefebvre, Earl of Pembroke, Duke of Connaught, Eugène Furst, General Jacqueminot, Louis van Houtte and Xavier Olibo. Tea-scented: Boadicea, Mme. A. Mari, Mme. Constant Soupert, Souvenir de Pierre Notting, Mme. de Watteville, Mme. Jean Dupuy, Perle des Jardins and Souvenir d'un Ami. Hybrid Teas: Antoine Rivoire, Caroline Testout, Dean Hole, Earl of Warwick, Etoile de France, General MacArthur, Gladys Harkness, Grüss an Sangerhausen, La France, Liberty, Mme. Abel Chatenay, Pharisaer, Mme. Jules Grolez, Mme. Ravary, Marquise Litta, Marquise de Sinety, Mrs. David Jardine, Rhea Reid and Richmond. Climbers: Bouquet d'Or, Billiard et Barre, Climbing La France, Climbing Liberty, Climbing Perle des Jardins, Dr. Rouges, J. B. Clark, La Soleil, Mme. Hector Leuilliot, Mme. Jules Gravereaux, Grüss an Teplitz and M. Desir. In reply to your second query we can recommend the book on Roses published from these offices, entitled "Roses for English Gardens," by Miss Jekyll and Mr. F. Mawley (12s. 9d. post free).

Pruning rambling Roses the first season (*A. H. P.*).—We think, generally speaking, that all climbing Roses that have been transplanted from the open ground give the most satisfactory results in the end if they are pruned back, say, to about 2 feet of their base the first year. Last spring we planted some Lady Gay and cut them down to within 4 inches or 5 inches of their base, and each plant made two growths 10 feet to 12 feet long last summer, besides several growths 4 feet to 6 feet long. In your case, where you desire length of growth rather than bushiness at the base, we advise you to retain one or two of the most matured growths as long as possible, but it is useless retaining wood that is very pithy, especially of the multiflora group, because such growths will fail in the summer just when they are wanted to look their best. The wichuraianas you have planted may safely be treated as we advise, but Claire Jacquier, being such a tender Rose, will probably show the ill-effects of the frosts in having brown pith. In this case cut such away until you come to sound white pith. There can be no doubt that long-shooted, pot-grown plants are the most satisfactory when there are chains or ropes to cover. These, having a ball of earth to their roots, receive no check, consequently their new growths extend right away from their extreme ends. Such plants of the wichuraiana Roses may be purchased with 18-feet to 20-feet growths; but, of course, they cost considerably more than an outdoor-grown plant. It is not, however, necessary that they should be sent in their pots, providing they are carefully balled up.

MISCELLANEOUS.

Vegetables attacked by insects (*W. H.*).—I do not recognise the insects attacking the roots of your vegetables from your description. Please send up some specimens, and I have no doubt I shall be able to tell you what they are and what you had best do to get rid of them. You have given your land a very heavy dressing of gas-lime, and I very much doubt if you would be able to make any crop grow on it for three months after it was applied. You will have done one good thing, viz., killed all the insect pests in the soil.—G. S. S.

Liming Potato soil (*G. W.*).—We had ample experience last year with Potato breadths, non-limed and liberally limed, and nothing in relation to freedom from disease in the tubers grown resulted from the lime-dressed breadth. That the disease was more than usually virulent last year was undoubtedly the case, and was too considerably in evidence in all sorts of soils. Your experience was therefore not singular. We understand that you propose to plant Potatoes this season on the same ground you grew the diseased crop on last year. This is hardly good policy, as it would have been better under the circumstances to have cropped it with other kinds of vegetables. However, whichever course you take it may be wise to dress lime freely at once, and when slaked well dig it in. Put down heaps of a bushel to every rod and a-half area and cast soil over the heaps. That and the air will cause the lime to slake; then spread and dig in. If, however, the ground be poor, a dressing of horse-manure at once dug in should also be of good service.

THE HORTICULTURAL CLUB.

"SOIL INOCULATION."

THE usual monthly dinner of this club was held on Tuesday, the 9th inst., at the Hotel Windsor, under the chairmanship of Mr. Harry J. Veitch, a very full attendance of members and guests being present to hear a discussion on the above subject between Professor Bottomley and Mr. F. J. Chittenden with reference to the recent experiments conducted by the latter with Nitro-Bacterine at Wisley. It will be remembered that as a result of those experiments Mr. Chittenden came to the conclusion, on the basis of very carefully prepared and tabulated data that, for ordinary garden soil, the bacteria introduced by Professor Bottomley's cultures produced practically no advantageous results. Since, however, these Wisley experiments had embraced, in addition to the inoculation, the application of varied manures to many of the plots concerned, Professor Bottomley claimed that this fact vitiated in many cases the value of the results, some of the manures being admittedly inimical to the bacteria concerned, and he furthermore considered that certain deductions from the data arrived at were not altogether just, a controversy thus arising in the columns of the *Gardeners' Chronicle* presenting the question from both opposing points of view. The happy thought was then conceived by Mr. E. T. Cook, the secretary of the club, of bringing these two gentlemen together on this occasion, and thus affording an opportunity of ventilating the question, not merely between themselves, but in the presence of a number of gentlemen keenly interested in the matter, and many of them capable of throwing side-lights upon it by independent experiments.

Professor Bottomley opened the discussion by repeating the argument already published anent the injurious effects of some of the manures, and he also, by means of tables roughly prepared and displayed in chart form, reanalysed a number of Mr. Chittenden's figures to show that the unfavourable results were largely due to tabulation on, what he submitted, were unfair lines, the actual results from his standpoint showing material advantages due to inoculation under the Wisley conditions, though he contended that those conditions were absolutely not such as permitted of a fair trial at all, the regeneration of poor and uncultivated land, and not the treatment of already fertile soil, forming the main field for the inoculating operations which he advocated. This address, which was admirably lucid and characterised, as was, indeed, the whole discussion, by the utmost good humour and mutual appreciation, created the most favourable impression as the opening speech for the counsel for the defence. Mr. Chittenden, on the other side, then rose, and although he declaimed the gift of eloquence such as that which had just been heard, he was no whit behind his friendly adversary in the power of summing up the *per contras* and giving adequate reasons for the course he had pursued in mapping out the trials at Wisley and tabulating the results, and it was abundantly obvious that every step he had taken has been the outcome of ripe and careful prevision. In conclusion, after dealing with Professor Bottomley's argument and objections, he sat down with the distinct and unqualified assertion that it was his opinion still that soil inoculation is of no service whatever in ordinary garden soils. Professor Keeble of Reading then rose, and in an admirable but brief address expressed the opinion that the value of inoculation for sterile soils such as Professor Bottomley had in view had not been in any way negatived by the Wisley trials. The real fact was that the study was a new one, and that the discrepancies in results were mainly due to ignorance of other factors affecting the question. It had been noted, for instance, that inoculation had a remarkable effect in modifying the root system, transforming deep tap-root systems into ramifying fibrous ones, a fact which brought the nature of the soil, friable or otherwise, into question entirely independently of manurial admixture, a fact which would also account for many puzzling differences in results obtained under apparently identical conditions. Messrs. A. Sutton, C. Pearson, Walker, G. L. Paul, R. Barr and Voss also took part in the discussion, the final results being, as Mr. Harry Veitch put it, a practical draw, a draw, however, which he hoped would be succeeded later on by another discussion, when fresh facts had been obtained and the points now in dispute had become clearer.

A very hearty vote of thanks was accorded to Professor Bottomley and Mr. Chittenden, and also to Professor Keeble.

SOCIETIES.

NATIONAL DAHLIA SOCIETY.

THIS long-established society, with which has been incorporated the London Dahlia Union, is showing distinct signs of activity and vigour, as evidenced by the programme of this year's work. In addition to two exhibitions in September next, it has arranged for three trials of Dahlias for the purpose of determining the varieties best adapted for garden decoration. These trials will be as follows: Garden Dahlias in association with the Royal Horticultural Society at Wisley, Cactus Dahlias in conjunction with Mr. J. T. West at Brentwood, and Pompon Dahlias at Slough in conjunction with Mr. Charles Turner. The garden Dahlias at Wisley will be grown under a distinctive name, and two plants of each variety should be sent in April, to be grown on before planting out. They should be addressed, if by rail, Superintendent, Royal Horticultural Society's Gardens, Horsley Station, L. and S.W.R., or, if by post, Superintendent, Royal Horticultural Society's Gardens, Wisley, Ripley, Surrey. A postcard should in either case be sent announcing the despatch of plants.

New varieties of Cactus and Pompon Dahlias are alone invited, and these will be grown under number in conjunction with a comprehensive collection of varieties in commerce. Two plants of each variety should be sent not later than the end of May, ready for planting out. Those desirous of including their novelties in the trials should notify their intention to Mr. E. F. Hawes, Royal Botanic Gardens, Regent's Park, N.W., and send with the notification the names of the varieties intended for trial. These names will be registered in numerical order, and the corresponding number with address label will be returned ready for despatch to the trial ground. All packages should be sent carriage paid. On arrival they will be carefully planted, be supported with a single stake and grown without disbudding. The plants will be inspected on convenient dates by a special committee of the National Dahlia Society, and in due course be reported upon.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

SOME WAYS OF USING ANNUAL FLOWERS.

ONCE again the season for seed-sowing has arrived, though at the time of writing these notes a keen easterly wind is blowing across the garden, flakes of snow promise a heavy downfall and the dusty ground, innocent of the warm rains February usually provides, are the despair of farmer and gardener. The following verses "On the Month of February" are not true of this Quixotic and uncomfortable winter:

> Now shifting gales with milder influence blow,
> Cloud o'er the skies, and melt the falling snow;
> The softened earth with fertile moisture teems,
> And, freed from icy bonds, down rush the swelling streams.

Much, therefore, depends upon the weather as to the wisdom of seed-sowing. It is useless to sow or plant if the ground has not recovered from the icy spell, and the wise gardener is he who waits a week or a fortnight before sowing seed of any description. I thought a few notes on some of the annual flowers I have found most worthy of creating rich pictures of colour would be useful, as these I have proved from experience to be not only rich in colour, possessing also charm of growth, but to continue in beauty over a long season. The "annual" is a sadly misunderstood flower, but why it is difficult to understand. Three rules should be adhered to: (1) thin sowing of the seed; (2) judicious thinning out; and (3) a well-prepared soil; but doubtless you will have notes sent to you on this subject, so I will not refer to their cultivation. The kinds that have won my love for their beauty are:

The Ostrich Plume China Asters.—I was the happy possessor last year of a bed of the exquisite mauve variety and the pure white. The seed was sown in shallow boxes in April, and these were placed on a hot-bed, where I raise my Stocks and Phlox Drummondi. Later on they were pricked out in a cold frame, and then at the end of May were planted out in a large bed, the mauve in the centre, with the white variety surrounding it. What a trembling sea of flowers, like the fluffy Chrysanthemum, for which the China Aster has been often mistaken. It is amusing sometimes when one has a friend who knows little of flowers and who insists that the Aster is simply a Chrysanthemum, until convinced that it has no more to do a Chrysanthemum than an Apple has with a Banana.

The Caucasian Poppy.—A lurid, wonderful colour is this Poppy (Papaver caucasicum). It was a friend of my boyhood, but it seems only of recent years—I suppose, since a real love for out-door gardening has arisen for æsthetic and health reasons—to have become recognised as capable of playing a great part in the beautifying of the English garden. I was first impressed with its splendour when I saw it scattered among some dwarf evergreen shrubs. It was a happy thought marrying this flower of the sun to the dark-leaved Berberis—I think the kind was; but any shrub of similar character will give the same effect. It may, of course, have a place in the border, for the good reason that this Poppy continues to throw up its crimson, black blotched flowers for some weeks, especially if the seed-vessels are picked off to relieve the plant of a twofold burden, bearing bloom and seed at the same time.

Shirley Poppies.—Everyone who loves a garden knows the Shirley Poppy, and an unconventional use of the flower is to sow it broadcast by a stream-bank, but as far as possible from the water. Poppies dislike a moist soil; they rejoice in a warm ground and full sun. Of course, one must not continue to sow annual Poppy seed, but a beautiful result came from sowing the seed on a large heap of turf stacked for use in potting. It may not seem good gardening, but the Poppies were not troublesome with regard to the seed, and the cloud of petals—pink as a maiden's cheek, pure white and delicately edged—were a delight to all who saw them: an unusual way of sowing this fair annual flower.

Sweet-scented Annuals.—I have the privilege of living in the summer-time on a hilltop. The soil is gravelly, not the best for gardening, but health reasons had to be considered; the wind sweeps round the house on wintry nights and tears through the very woodland itself. One thinks then of the drowsy summer-time; and thoughts of the many beautiful annual flowers are the more intense when the catalogues are studied to choose the kinds for the forthcoming year. Last summer I sowed Night-scented Stock, Mignonette and Stocks close to the house. With the sinking of the sun these homely flowers steeped in perfume poured their incense into the warm summer air. A calm feeling steals over the busy London worker when strolling in the twilight in this garden of scents; therefore, sow plenty of these near the house.

Pink and White Mallows.—Last year I saw a group of the pink Mallow (Lavatera trimestris) 6 feet in height; the soil was rich and moist, and the beautiful rosy flowers, like those of the Hollyhock in miniature, lined the stems. There is no finer annual plant to make a group or hedge of than Lavatera trimestris, and in newly made gardens it is a welcome stop-gap until the more permanent things have been established.

A hedge of it through the vegetable garden, or some little walk leading to it, gives just that touch of colour one delights to see; it is beautiful and unexpected. The white (alba) is colourless and associates well with the pink form.

PHLOX DRUMMONDI.—Distinct colours of this, the most free-blooming of all half-hardy annual flowers, are more agreeable to the eye than "mixtures," which have an unsatisfying bizarre effect. I had four large beds of it last year, and the plant is less upset by drought than annual flowers in general.

PHACELIA CAMPANULARIA.—Blue is a colour that is never tiring, not even the deep blue of a good form of the common Lobelia, and it is rare. Phacelaria campanularia gives the blue of the Gentian; it is a vigorous annual flower, not more than 12 inches high, spreading somewhat in its growth, and has flowers of a bell-like shape, hence the specific name of "campanularia." I had a row of it last year, and shall sow more of it shortly. In my garden of sunshine it is quite at home, the plant delighting in a blazing sun and a not over-rich soil, and forms a sort of margin to a narrow border filled with perennials.

SALPIGLOSSIS. — Why does this graceful, beautiful annual die off mysteriously? I have ceased to sow it owing to this fickle character. Perhaps some reader will help me, because the Salpiglossis, with its wonderful colouring, should not disappear from our gardens.

SUNFLOWER PRIMROSE DAME.—I am not certain, but I believe it was in the nursery of Messrs. Sutton and Sons of Reading that I first saw this dainty Sunflower, for dainty it is, although one does not usually associate the word with this group. But Primrose Dame has none of the coarseness of the annual Sunflower usually seen in gardens, tall, thick-stemmed plants, crowned with an immense head of bloom, which seems to look down upon one from its great height. The variety under notice is not tall, and the flower is primrose tinted, made softer by the almost black centre.

GODETIA DUCHESS OF ALBANY. — Of the Godetias, the pure white variety with rather large flowers, named Duchess of Albany, is well worthy to make a group of. It blooms in profusion and lasts long in its fresh beauty.

LOVE-IN-A-MIST (Nigella damascena Miss Jekyll).—This is an improved form of the well-known Love-in-a-Mist; but to ensure the full size and rich blue colouring of the flowers the seed must be sown thinly in rich soil. I shall never forget the bed of it in Miss Jekyll's beautiful garden at Munstead Wood. It seemed as if a bit of the blue sky above had fallen to earth. These are a few jottings which I hope the Editor will think worthy of publication. V.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

*** *The dates given below are those supplied by the respective Secretaries.*

April 6. — Royal Horticultural Society. Meeting of Committees, 12 noon.

April 20.—Auricula and Primula Show.

Holyport Cottagers' Horticultural and Industrial Society.—This is a very flourishing provincial society, and the schedule of prizes to be offered at the annual show on August 12 is well worth perusal by all who exhibit flowers, fruits and vegetables. Some exceedingly good prizes are offered, and given fine weather the exhibition should prove a large success. The energetic hon. secretary, Mr. J. B. Westropp, Manor Cottage, Holyport, will be pleased to supply full particulars.

Gosport and Alverstoke Gardeners' Association.—Although this association has only been in existence for three years, it has done much to forward horticulture in Hampshire, and the book of arrangements for the present year is of an interesting character. No less than four challenge cups are offered in popular classes at the summer show to be held on July 14 next, and all who live in the county should write for particulars to the hon. secretary, Mr. T. E. Hawkins, 123, Avenue Road, Gosport.

Pansies and Violas.—Growers who intend to try any of these wonderfully hardy and free-blooming garden plants should lose no time in getting the work done. Late planting is accompanied with considerable risk, as plants do not get properly established before the hot weather sets in, consequently there is disappointment all round. Intending planters should consult the advertisement pages of this journal for prices and other particulars.

"Hardy Creepers and Their Uses."—This was the subject of a very interesting paper which Mr. J. G. Bishop of Messrs. Daniels Brothers' Nursery gave before the March meeting of the East Anglian Horticultural Club. The utility of the family of Ampelopsis was first dealt with, followed by Ivies, Clematises, Honeysuckles and Jasmines, all of which, though frequently met with, are, nevertheless, charming subjects for various purposes. The more rarer sorts, such as Bignonias, Magnolias, &c., also received attention from the essayist. At the conclusion of the paper an animated discussion took place.

The war on rats in Scotland.—Deeside farmers have suffered considerably of late through the depredations of rats, and, at the close of the weekly auction sale at Banchory Mart, a meeting was held to organise a crusade against these mischievous vermin. Professor Young, Lecturer on Veterinary Hygiene, explained the method adopted at Ellon, where great success had attended applications of Danysz Virus. The work was carried on by a committee, presided over by the chairman of the Ellon Parish Council, under the directions of a representative of the firm. The virus set up a disease, and the rats, after eating the bait, died within five to ten days. After some discussion, the farmers in the Banchory district unanimously agreed that the experiment should be tried in connexion with Crathes and adjoining estates, a responsible committee being appointed to make the necessary arrangements. An assessment will be levied according to rental on the various farmers who agreed to the scheme. Both Sir Thomas Burnett, Bart., of Leys and Sir John Gladstone, Bart., of Fasque have, we understand, promised to give practical assistance in connexion with the proposed campaign against rats, which should prove especially beneficial to crofters.

The coming-of-age of the Wolverhampton Floral Fete.—The committee of this enterprising and flourishing society is this year celebrating the above auspicious and happy event in a right royal way by offering most tempting and munificent prizes in most of the classes of the schedule, and those interested should lose no time in writing for a copy to the secretary, Mr. W. E. Burnett, Snow Hill, Wolverhampton. Unfortunately, of late years the Holland Park Show and the Wolverhampton Show have been held on the same day, this fact, no doubt, militating in some degree against the complete success of both. This year this has happily been put an end to, the Holland Park Show being held on July 6 and 7 and the Wolverhampton Show on July 13, 14 and 15. Instancing a few of the splendid prizes offered, we may mention that a silver vase value £50, or its equivalent in cash, is offered for the most meritorious and effective display in the show—open to all. A first prize of £40 is offered for a display of miscellaneous plants in or out of bloom (cut flowers and foliage being allowed) arranged for effect, with £30, £20 and £10 for the next best respectively. For a group of foliage plants arranged for effect, £25, £20 and £12 10s. are offered. In a class for seventy-two distinct varieties of Roses, £20, £12, £7 and £3 are offered. There are classes and prizes galore for Sweet Peas; fruit also and vegetables are well provided for. All classes in the schedule seem to have been provided for in the same generous way, which surely cannot but evoke a magnificent response on the exhibition day.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

The Perpetual-flowering Carnation Society.—When "A. D." writes readers usually learn, but many, for once, will disagree with his note on page 99, for although the Perpetual-flowering Carnation may not be the favourite flower of some, to others it is a bloom of great importance, either as a winter-flowering plant, or, as correspondence in THE GARDEN has recently proved, for bedding-out purposes. Of all winter-blooming greenhouse plants the cultivation of the Perpetual-flowering Carnation is probably the most fascinating hobby, and in America it stands out as the most valuable winter-blooming plant they have, even as it is rapidly becoming in this country. I venture to think the Perpetual-flowering Carnation needs a patron society as much as any other particular plant. The new society which has undertaken the interests of this plant endeavours to remain free from fads as to what a Carnation should be, just as much as it is free from cliques of individuals, and also offers to members competing at its special shows some good prizes.—LAURENCE J. COOK, *Hon. Treasurer, 92, First Avenue, Bush Hill Park, Middlesex.*

When to plant fruit trees.—As a lifelong fruit-grower I quite agree with the first part of "D. K.'s" statement in THE GARDEN for the 20th ult., when he says, "beginners must often be puzzled at the contradictory advice they receive" from so many faddists. The Editor speaks correctly when he says, "So much depends on the weather," to which I add, and the state of the soil. The whole question rests on these two points, and if both are satisfactory, then planting may be done with perfect safety right through the winter. It is wrong to assert that November is, practically, the only safe month in which to plant. Undoubtedly November is the ideal month for planting, and those who are able to do so should plant then by all means; but to infer that winter planting (provided it is intelligently carried out) is in any way disastrous is sheer nonsense. If this statement is accepted as correct, then scores of practical foresters are very much in error who plant all through the winter. I should like to state here that very great injury is often done to young trees by exposing the tender roots to frost and cold winds during the interval between lifting and replanting: indeed, many trees are practically killed in this way before planting at all. In conclusion, let me recommend to the beginner these three "don'ts": Don't plant when the ground is wet or pasty; don't put frosty earth on the roots; and don't expose the roots more than is necessary.—E. T. LAWRENCE, *Kettering.*

—— It is very well to lay down certain hard-and-fast lines as to the proper or best times during autumn, winter or spring when fruit trees should be transplanted; but every grower, large or small, knows how much times for performing this work are governed by conditions over which he may have little control. Where ground has been prepared for planting and trees can be obtained, the middle of October, even if leaves are still on the trees, is not too early for the operation. Just then the soil is, as a rule, warmer than the air, and for that reason root action is immediately encouraged. But if, for instance, as was complained of last autumn, the soil is so dry that nurserymen hesitate to lift trees and send out, the risk being material, it may be December before planting can be done; and

with the weather open and soil more moist the risk incurred in transplanting then would have been much less than if done while so dry in October. But objection to planting in mid-winter, say, January and February, arises chiefly from two possible causes—soil frozen or sodden with rain. To attempt planting under such conditions would be madness. Better leave over till March and even early into April, when frosts have disappeared and the soil has become of normal condition. But when there is quite open weather and the soil is not sodden—and that overwet condition is not always prevalent in winter—there is absolutely no reason why planting may not proceed during January and February. Every nurseryman knows that vast quantities of such tree and shrub planting is done all through the winter in open weather with entirely satisfactory results. Fruit trees are just as hardy as ordinary forest trees or border shrubs, and will under similar conditions root as freely. The soil in which the trees are growing, whether in the nursery or elsewhere, is just as cold as that into which they may be transplanted; hence no severe check to roots is given. It by no means follows that by transplanting from cold soil to cold soil small roots perish, but they may suffer if before planting they have been exposed to harsh, drying winds.—A. D.

—— Much depends on the weather at the time of planting fruit trees as to their succeeding. If moist or showery weather prevails after planting, they have a far better chance than when cold, drying winds are sweeping over them. Then, again, much depends on the care that has been exercised after the plants have been taken up. If allowed to remain about for some hours, the roots get dry before being packed, and there is then very little hope of success. A friend of mine bought a number of Apple trees in March for 5s. each, and he took prizes with the fruit at a local November show the same year. As a rule, I think, if preparation cannot be made to plant in November it is much safer to wait till the following November.—W. P. R.

The classification of perpetual-flowering Roses.—I have read with much interest both the Rev. Mr. Pemberton's and Mr. Prince's letters as to the re-classification of perpetual-flowering Roses. I think many, if not most, rosarians are of the opinion that the so-called Hybrid Perpetual Roses are misnamed, and I agree with Mr. Prince that the simple name of "Hybrids" would truly and correctly classify these latter. Mr. Pemberton rightly draws attention to the fact that certain Roses classed as hybrids are misclassed, quoting among others Frau Karl Druschki as an instance in point. On the occasion of a most agreeable visit which I paid to the raiser of that Rose at Treves, I took the liberty of asking Mr. Lambert why he had classed his famous Rose as a Hybrid Perpetual, adding that as it had obtained for me the only medal I had ever gained in England for a Hybrid Perpetual, it seemed to me that my light soil at Bath was testifying to a mistake on the raiser's part in classifying Frau Karl Druschki as a Hybrid Perpetual. While urging that the said Rose did contain a moiety of hybrid blood, it appeared to me that Mr. Lambert regretted that he had not classed the Rose as a Hybrid Tea. Leaving the Hybrid Perpetuals, Mr. Pemberton next enquires why, among other Roses, Mrs. Edward Mawley should be classed as a Tea? Possibly the reply to this would be that doubtless Mrs. Edward Mawley claims some fair share of Tea blood, and allowing such to be the case, what can even a first-class raiser of Roses do if both friends and neighbours beseech him to name after each of them, not one of your hybrids, nor yet even one of your beautiful Hybrid Teas, no! nothing less than that embodiment of loveliness—a perfect Tea Rose? To Mr. Pemberton's enquiry, "Can anything be done to rectify Roses wrongly classed? I would suggest that after a Rose has been fairly tested a verdict given by the experts of the National Rose Society should suffice to place the Rose under its proper heading; at least, in our own country. But when—and because of mistakes on the part of some raisers of Roses—Mr. Pemberton calmly suggests that a general conglomeration (which he calls an amalgamation) of Hybrid Perpetuals, Hybrid Teas and Teas should be made, I recall to mind the last conversation I had with Dean Hole, one of the founders and the first president of our National Rose Society. While admiring, at the Temple Show, a lovely Hermanos, the Dean reminded me "that no Tea Rose had been named after himself." Remembering this and the many conversations I had with that enthusiastic lover of Tea Roses, as Dean Hole certainly was, I naturally ask, What would he have thought of the proposition to demolish the Tea classes; this, too, in the cause of "progress"? Again, I remember our late secretary, the Rev. Mr. D'ombrain, telling me that other rosarians thought with himself that any highly coloured crimson Tea seemed out of place when exhibited along with the other Teas. May I not ask, too, what Mr. D'ombrain would have thought of a pseudo "progress" which, after bowling over his pet Tea classes, would condescendingly permit an exceptional Tea bloom to be exhibited, probably between two giant hybrids, in one of Mr. Pemberton's "specimen" boxes? What, too, the late Mr. Benjamin Cant (whose own prize medal Souvenir d'Elise Vardon will ever live in the memory—by whose advice I built wall after wall solely for the cultivation of Teas) would have thought of a progress which would simply annihilate the Tea classes? And that celebrated Tea Rose-grower, Mr. George Prince, with his never-to-be-forgotten Nadaillacs? Surely Mr. Pemberton's heretical proposition is enough to make these canonised rosarians turn in their graves! And our own Rev. Mr. Burnside! No need can there be of asking what he thinks of such progress; he whose Cleopatras and Innocente Pirolas of auld lang syne must have rejoiced the cherubim and the seraphim, even allowing, as in conformity with the Rev. Mr. Pemberton's notion of progress, that these latter had already been amalgamated with the archangelic choirs. "Specimen Roses" Mr. Pemberton describes "as Roses whose value lies principally in the beauty of the individual flowers as staged for exhibition." May I take it that such are the blooms usually selected by the judges as being most worthy of medals? For if Roses unmistakably inferior to medal blooms fall under the category of "Specimen Roses," what advantage is there to be gained by such exhibits, as we have enough and to spare of such blooms at our ordinary Rose shows? If, on the other hand, medal blooms are to be demanded, any of the judges will tell you that such blooms are few and far between; that even the great nurserymen with their thousands find it difficult to discover such in their nurseries. How, then, can the ordinary run of amateurs be expected to stage, on any given day, a box of blooms worthy to be considered as "Specimen Roses"?—Alexander Hill Gray, *Island of Santa Maria, Azores, Portugal.*

New Potatoes at Christmas.—I am very glad to reply to Mr. Walters and to supply further information about growing new Potatoes for Christmas. I grew them in frames that had had a crop of Melons cleared off about the end of September, forking up the mould and making it firm. I found enough heat left in the frames; but if they get too cold take off the outside lining and make it up again with fresh stable manure, keeping the heat up to 55° or 60°. I had no fire-heat. The Early Ashleaf and Myatt's Prolific were the sorts I grew, and these were dug from the open ground at the end of May, good-sized sets selected (after the large ones were used) and hardened off in the sun and air for a fortnight, then stored in an airy shed or room till planting time. By proper management and convenience a continual supply may be obtained through the spring.—C. H. Clissold.

ARTIFICIAL MANURES.

Their Uses and Misuses.

DOUBTLESS many amateur readers of The Garden, and possibly a few professionals, have at the most but very hazy ideas as to the proper uses of artificial manures, and it is, therefore, proposed in this article to briefly touch on a few points relating to such manures, and thereby bring out the uses and misuses to which they may be put. The term artificial will be used in its broadest sense, and will include organic or inorganic manures other than farmyard, stable or similar natural products. Many good artificial manures have, I am sure, been unjustly condemned owing to their actions on plant-life being misunderstood, and I well remember one old fellow dosing his Tomatoes with nitrate of soda and marvelling at their wondrous growth; that they did not bear fruit he would not believe was the result of such feeding until it was actually demonstrated to him the following season.

For the purpose of saving space it will be well to divide these manures into three general sections, viz., nitrogenous, potassic and phosphatic, as each has a certain effect on plant-life. Nitrogenous manures are those in which nitrogen preponderates, and are represented by nitrate of soda, sulphate of ammonia, soot and guano. The action of all these on plants is to stimulate growth and to give the foliage a healthy, green appearance. At first sight such manures may appear very satisfactory, and so, doubtless, they are when properly used. It must, however, be borne in mind that abundant foliage is usually produced at the expense of flowers and fruit; consequently to apply nitrogenous manures in any quantity to plants grown for their flowers or fruit would be a mistake. The crops for which they are particularly valuable are such as Cabbages, Lettuces and foliage plants in general.

As they are very quick in their action, these manures, with, perhaps, the exception of soot, should only be applied to plants in active growth, otherwise their virtues will be wasted. Where fruiting or flowering plants are in a young state and apparently need a stimulant, one, or perhaps two, applications of nitrate of soda, sulphate of ammonia or guano may with advantage be given, but otherwise they should be withheld from such crops. Half an ounce of either to a gallon of water makes a good liquid manure.

Potassic manures are generally represented by kainit, sulphate of potash, muriate of potash and nitrate of potash. These are slow in their action, and are usually dug into the soil two or three months in advance of cropping. Generally speaking, their functions are to build up solid stems and aid in the production of flowers and fruit; consequently they are valuable for all kinds of fruit and root crops. Kainit is used generally at the rate of 3lb. per square rod, and the others, which are dearer but stronger, at 1lb. or 1½lb. per square rod.

Phosphatic manures assist in the formation of protoplasm, the substance which forms new tissue and which is most important; hence their value for all kinds of plants must not be overlooked. The best-known manures that come under this section are superphosphate of lime, bone-meal and basic slag, all of which are slow in their action and are usually applied shortly in advance of seed-sowing or planting. Superphosphate, however, is quicker in its action than the other two, and may be applied during their growth to flowering plants, Sweet Peas particularly deriving considerable benefit from such applications. Bone-meal is generally applied to soil for fruit trees, Vines, &c., a 6-inch potful to a barrow-load of soil being a good amount to use. Basic slag is particularly valued for lawns, it being applied in autumn at the rate of 1lb. to a square yard.

In addition to the manures enumerated above, there are the many excellent proprietary manures

which are more or less complete plant foods and which usually contain nitrogen, potash and phosphate in properly adjusted proportions, these being represented by such as Clay's Fertilizer, With's Manure and Wellson's Plant Food. It must, however, be strictly borne in mind that to get the best results from any artificial manures they should be used in conjunction with, and not as substitutes for, farmyard or natural manures, and the proprietary compounds used strictly according to the directions supplied with them.

Farmyard or similar manures, in addition to the plant food they contain, give to the soil that valuable rooting and warmth-attracting organic substance known as humus, without which a soil cannot be fertile. A manure, however, that has now been on the market for some years, and which may be used as a substitute for farmyard or similar manures, is Wakeley's Patent Hop Manure, manufactured by Wakeley Brothers, 75A, Bankside, London. This is composed of spent Hops which have been chemically treated with nitrates, potash and phosphates so as to render the whole a complete plant food. As the Hops decay they form humus, just the same as the organic matter found in farmyard manure; hence it may be used for all kinds of crops where farmyard or similar manure is not easily obtainable. K.

DAFFODIL NOTES.

THE FORCED BULB SHOW.

THE spring bulb show of March 9 has come and gone, and if a very large and diversified exhibition of flowers and an enormous attendance of the general public spell success, it must be pronounced an unqualified one. I was glad to see that Daffodils were so much in evidence, both private persons and the trade contributing their quotas to make up a most interesting collection of cut flowers and pot plants.

The firm of Messrs. Cartwright and Goodwin staged in a shallow semi-circle about 100 vases, which must have represented quite eighty varieties. The whole had a graceful appearance, for between each vase there was a small pot of that pretty drooping Grass, Isolepis gracilis. There is no mistake; the employment of this particular plant was an inspiration—it harmonised so well with both flowers and background. Visitors saw such varieties as Mme. de Graaff, Lucifer, King Alfred, White Lady, Torch, Blackwell (exceptionally good), Artemis, Citron, Duke of Bedford, several of the new Poetaz varieties, a few new seedlings not in commerce, together with the bright-cupped Scarlet Eye, with its fine Poetarum-looking perianth, and Circlet, a quite new Engleheartii of great substance and beautiful symmetry. These were all good and afforded the public an idea of how the all-too-short open-air season of some of the choicer things may be prolonged.

Messrs. Barr and Sons had a collection of cut blooms, which contained some of the "dearer cheap" varieties which may well be used for pot work. Ariadne, the beautiful drooping Leedsii; Admiral Togo, the handsome yellow large trumpet; and the Rival, a neat yellow and white incomparabilis) were noticeable. I should like to mention here Fairy Queen, which I saw on this firm's stand on February 9. It is a fine forcer, as was proved by its being exhibited then in such good condition. It has a white perianth and the outer half of its segments gracefully incurve. The cup is narrow and rather long, something like a Nelsonii.

Messrs. W. Cutbush and Son had a large exhibit of Daffodils in pots. It was a pity that they were arranged so much on a level. The individual flowers and potfuls were lost in the mass, and accordingly its educational value lessened. I noticed some excellent Maximus and Princess Mary, while Glory of Leiden and Almira were both fine. This last variety is well worth trying in pots. It keeps its true character ever so much better than most of the Poets when grown under glass.

Messrs. R. H. Bath had a varied collection of pot plants. My favourite Eyebright was certainly one of the best. It is a delightful flower, scarcely a Poet and yet hardly a typical Burbidgei. Duke of Bedford, Spinnaker and Weardale Perfection were also good.

A few good clumps of N. Glory of Leiden, Poetaz Irene and Poetaz Aspasia stood out in Lady Tate's exhibit among some Tulips and other plants. The Poetaz type are very good indeed as pot plants. When they are better known I feel sure there will be a great demand, and from conversations with one or two at the show I know I am by no means alone in my prognostication. I had myself a collection of almost all the varieties at present in commerce on a small stand. I fear they were too crowded to do themselves justice, but, all the same, they attracted a good deal of attention. Alsace is the earliest to flower and Elvira about the latest. Jaune à Merveille and Sunset are two very taking yellows; the latter has an orange cup and pale yellow perianth and the former is a yellow self. I hope before the end of the season to refer to this type again.

Whenever Mr. Walter T. Ware brings up an exhibit one is certain that it is one worth bringing. At this show he had a magnificent large trumpet variety named Queen of the West. It is a very large flower of a lovely Captain Nelson shade of yellow, a vigorous grower and of good constitution. Last year it received an award of merit, and it was put up for a first-class certificate at the committee meeting on March 9th. It is not a show flower, but as a market variety it has a great future.

THE NARCISSUS COMMITTEE'S AWARDS.

Up to the present there has been an unwritten law that no flower grown under glass should be eligible for an award. As the council has now instituted a forced bulb show, there is a general feeling abroad among members of the committee that they should recognise in some way varieties that are particularly good for early flowering in pots. A considerable discussion on this point took place, and ultimately it was decided that a sort of forcing commendation might be given to particularly good sorts that were shown at or before the first meeting in March and considered worthy of the honour. Another question that I think deserves the attention of the committee is the important one, What are awards given for? For excellence as a show flower, or for its suitability for garden decoration, or for its value as a market or cut bloom? There is nothing in the words "award of merit" to point out in what its merit consists.

DAFFODIL CLASSIFICATION.

Naturally, I heard a good deal about this. There is, I find, a sort of feeling that the report of the classification committee should have been referred to the Narcissus committee before it was officially sanctioned and published. There is a considerable soreness on the part of some because this was not done. It is a pity it was not, but the council cannot be blamed for doing just what it was asked. The old committee, with the addition of three or four fresh names, was appointed as a sub-committee and asked to report, if possible, before the end of the season. I can only express the hope that it will begin its work at once, so that at the end of the season we may have a complete classification. I found, too, a good deal of misunderstanding about its intention. Had the title been "The Classification of Daffodils for Shows" it would have made clear what the purpose was and prevented a considerable amount of misunderstanding. JOSEPH JACOB.

THE KITCHEN GARDEN.

CUCUMBER-GROWING FOR AMATEURS.

AMATEURS are often at a loss to know why good Cucumbers cannot be grown, after having expended considerable time and means on the plants, with, in the end, only poor results. It may be well to point out a few of the difficulties, and I will divide my notes into three groups—the Cucumber house proper, in a greenhouse (or what many amateurs would call a mixed house) and in frames, with only stable manure to supply the heat.

CUCUMBERS IN HOUSES.

By this I mean small, low houses, often called pits, but large enough to work in with comfort. Frequently these are well heated, so that a start may be made much earlier by sowing seeds in 2½-inch pots and, when the seedlings have made the third leaf, planting out. The seeds when sown, if the soil is at all moist, should not be watered till the plants appear, as they are most susceptible to excessive moisture or cold in their early stage, that is, when they are germinating. Many seeds are lost by too much moisture, and the seedsman is blamed. At the time the seeds are sown the soil heaps should be placed 2 feet to 3 feet apart in the house. This should consist of light good loam with some well-decayed manure, or, if at all heavy, some wood-ashes and old fine mortar rubble mixed. Each plant should have about a bushel of soil placed in mounds; less would suffice at the start, as it is much better to feed often by adding rich top-dressings as soon as the surface roots show. When this is done every three weeks good results follow. As a surface food such aids as bone-meal and occasionally a little fresh soot are of great assistance. I now come to temperatures and general culture. At the start I should state that few plants do better when given heat and moisture. Growers for market, who grow under high pressure, give much heat, syringe the plants frequently and ventilate very little; but the amateur requires the plants to fruit as long as possible. This is best secured by what may be termed a middle course.

When planting, the soil should be as warm as the house, say 75°, and the night temperature a few degrees lower, say, 65° to 70°, according to the weather, the day temperature of the house 70° to 75°, but allowing the thermometer to run up freely in bright sunshine. A little ventilation should be given when the house stands at 80° to 85°, but avoid cold draughts. Close early—that is, as soon as the temperature begins to decline—thoroughly damp all parts of the house and all portions of the plant, especially the upper part of the foliage. The plant will soon reach the ridge of the house, and should be stopped at, say, 3 feet from its base. This is pinching out the point of the plant. It will then send out side or lateral growths. Tie these in to the trellis and pinch out the point of each at the joint beyond the fruit. This must be continued as growth increases, always bearing in mind that by laying in new wood and cutting out weak growths there will be no want of fruit. It is the absence of fruiting wood regularly laid in that causes plants to fail. Another strong point is this—never overfruit. There is, even with gardeners, a certain dislike to cut away or sacrifice young fruits; but it must be done to keep the plants vigorous. If too many are allowed at any one time the burden is too heavy. When in full vigour give liquid manure two or three times a week, and always use water as near the same temperature of the house as possible.

CUCUMBERS IN A GREENHOUSE.

Here a "give and take" method must be adopted, and the plants sown at the middle or end of March.

as already advised, and placed on shelves at the warm end of the house soon germinate. They may be grown on the stage or in large pots or boxes.

I prefer the first-named, as grown thus a heavier return may be secured. Frequently the plants may be grown at the back of the stage, and other things, such as Ferns or foliage plants, at the front part. The remarks previously made with regard to soils and food are applicable in this case also. I should add that by raising the plants at the date noted the seedlings will be ready to plant out early in April, but any time in that month will do. Also, if the house is crowded with plants for outdoor decoration, seed may be sown later, so that when the plants are removed the Cucumbers are ready to take their place. From a fortnight to three weeks will be sufficient to raise the plants for planting out.

The greenhouse may not have much artificial heat, but much may be done by sun-heat, closing early and not giving much ventilation or moisture in cold weather. As to shade, the safest plan is to paint the glass outside with a mixture of milk and whiting, adding any other colour desired, and even then on very hot days in summer it may be necessary to use thin tiffany or canvas for an hour or two. In a mixed house the temperatures cannot always be maintained as desired; under these conditions there may be a drop of several degrees to suit the other occupants. The Cucumbers will not suffer; but growth will be less rapid, less food will be required and less heat at night.

Cucumbers in Frames.

Here the amateur will find a pleasant and profitable occupation, and by the term "frames" I mean ordinary three-light ones which can be lifted on to a heap of fermenting material or a frame built on brickwork and a good depth of warm manure placed in the bottom of sufficient thickness, say, 3 feet to 4 feet, so that the warmth is retained for some time. A violent heat does much harm. The manure should be prepared some little time in advance by turning over and exposing and well incorporating the strawy litter with the shorter material. This will then become more solid, and when placed in position, 3 feet to 4 feet deep, should be well trodden to retain the warmth for a considerable time. Place the manure and soil some little time in advance of planting, so that the soil gets warmed through. Give about a bushel of soil to two plants, one to fill the lower part of the frame, the other the upper part. These will fill one light or sash. The soil when in position should be about 12 inches from the glass, and as the manure sinks this allows for top-dressings.

At the planting make each specimen firm and use some of the finest soil round the delicate roots, watering afterwards with tepid water. Keep the frame quite close for several days and shade from the sun with mats or canvas. Less moisture is required in a frame than in any of the other modes of culture described above, and a gentle damping overhead with tepid water after warm sunshine will suffice, as there is always moisture from the bed. The plants at the start—indeed, always at night—are greatly benefited by having the glass of the frames covered. This makes from 7° to 10° more warmth. As regards ventilation, do not give large volumes of air to cause draughts. Study the weather and ventilate from the upper part of the frame. If the frames are of wood placed on manure, put a liberal quantity of fresh material round the outside as the older material sinks. This may be done every three or four weeks, and when feeding the plants give tepid liquid manure each week.

Shading will be most essential during bright, sunny days, or the foliage will become badly scorched. Use the mixture advised for the greenhouse and renew it as often as it is washed away by rain. G. Wythes.

THE ROSE GARDEN.

ROSE GRUSS AN TEPLITZ FROM CUTTINGS.

THIS brilliant Rose can be easily propagated by cuttings, as freely almost as Laurels or Privet, and I consider it *the* method of increase, as one obtains a freer blooming without the embarrassing growth experienced with strong budded plants. Last April we transplanted some one year old cuttings of Grüss an Teplitz, and prior to planting they were cut back hard to within 2 inches or 3 inches of the base. In October these plants gave a most brilliant display, which, apart from their summer blooming, proved the utility of this treatment in affording such a display so late in the year. I believe by transplanting these own-root plants annually in the spring and pruning them hard at the time we have solved the difficulty of how to best employ such a brilliant Rose for bedding.

Good firm wood, preferably with a heel, if inserted in October will give good well-rooted cuttings, fully 90 per cent. taking. The cuttings should be about 8 inches in length and planted in rather gritty soil quite in the open in rows or in beds. When planting let them be buried in the soil so that not more than 1 inch is exposed. After severe frosts go over the cuttings and push them down, for it will be found that the frost has raised them 1 inch or 2 inches out of the ground. P.

A SPRAY OF ROSE BLUSH RAMBLER.

ROSE BLUSH RAMBLER.

This is one of the best rambling Roses for training to trellis or on single arches, and has the good quality of being very free from mildew. It is a profuse bloomer, and the delicate-coloured, semi-double pink flowers are valuable for table decoration. The illustration is from a photograph taken in the gardens of Sir Walter Smythe, Bart., Acton Barnett, Shrewsbury. J. C.

ROSE ROSETTE DE LA LEGION D'HONNEUR.

This is a Rose of peculiar colour, viz., carnation red, changing to salmon and carmine, with yellow lines in the petals. It is only semi-double, but in large trusses that last well; very showy and sweet scented. Like Grüss an Teplitz this Rose does better when established and only slightly pruned. It is an excellent late-blooming sort. A. P.

THE FRUIT GARDEN.

HOW TO GROW FRUIT TREES IN POTS.

(Continued from page 138.)

Their Culture.—When to Purchase.

AN ideal time to purchase trees in pots is in the autumn, when the wood is well ripened and the buds prominent. It is then possible to have them sent long distances, out of pots if needs be; but I do not recommend this practice unless they are packed securely in crates or vans. When the leaves are off the trees it is easier to form an idea as to the quality of each one. The best reason, too, why autumn purchases are preferable is that of enabling the buyer to repot the trees in good time, so as to have all the work completed before frosts set in, especially if the trees are intended for wintering outside, or partially so. This may have to be done for a time and until the houses can be cleansed after other crops. It is well, however, to house in a cool structure as soon as possible.

What to Purchase.

The best trees to purchase are those that have been established and grown in pots for at least two seasons previously. One year in pots is not sufficient, not even in the case of Cherries. I would prefer to have Peaches, Nectarines, Cherries and Plums of three years' growth in pots to ensure success in the immediate future. The balls should hang together firmly when knocked out of the pots, the whole of the soil being permeated with roots. Young trees, such as are of the age indicated, are the best to begin with. If taken in hand thus early, trees of better form will be secured, their predisposition to over-luxuriant growth being more easily controlled. The form of the tree is optional to a certain extent; but, on the whole, upright trees will be better than those with spreading heads. Some will in time, as in our own case, form themselves into trees of standard-like shape rather than a pyramidal one.

When to Pot.

With respect to the time of potting, I might say that my practice is to start repotting either at the end of September or early in October. We start, as a matter of course, with the earliest forced trees, and continue until the finish. If we get finished by the end of October I am well satisfied. We do not mind if there are a considerable quantity of leaves upon the trees at the

time, so long as they are well matured. The earlier these first early trees are repotted the better in every way will they be. J. HUDSON, V.M.H.

(To be continued.)

COLOURED PLATE.

PLATE 1370.

CHINESE ASTERS AND THEIR CULTURE.

GIVE a good firm of seedsmen a wild flower, and, if it is in any way possible to improve it or to obtain variations of it, we may rest assured these experts will bring such about in a comparatively short time. Concrete examples of their work in these directions are now afforded on every hand in the many beautiful florists' flowers that adorn our gardens and greenhouses, and among the foremost comes the so-called Chinese Aster, or Callistephus, as the botanist would have us call it. Certain it is that we have no annual flower that is more popular, excepting the Sweet Pea, and there are few gardens, however small, in which at least one type is not to be found. Nor is this popularity surprising when we remember how easily the plants are raised from seeds, the beautiful displays of flowers they give, and the long stems which render the blossoms so eminently suitable for cutting for indoor decoration. Added to these good features we have flowers of beautiful forms and chaste colours, so that the Chinese Aster may well be a favourite with rich and poor alike.

The earliest plants are raised under glass, a hot-bed frame being the best place; but a cold frame even will answer very well or a stage in the greenhouse, providing space can be afforded there. It is well to use rather shallow boxes or pans as receptacles, and these must be well drained and filled with soil composed of two parts good loam, one part decayed manure or leaf-soil and one part sand, the whole being finely sifted. Use the rough portion for placing over the crocks in the bottom of the boxes or pans, and then fill in with the fine soil, so that when all is pressed moderately firm it is about half an inch below the top of the receptacle. Scatter the seeds very thinly and then cover with about a quarter of an inch of fine soil, water with a fine-rosed can and place a pane of glass or sheet of brown paper over each box or pan.

As soon as germination is effected, remove the glass or paper and afford the seedlings all the light possible, and also air on all favourable occasions. Watering must be very carefully done in the morning, so that moisture can dry up before the evening, damp being the worst enemy of the seedlings. When the young plants are about 2 inches high they must be transplanted to other pans or boxes, choosing those for preference that are at least 4 inches deep. Use the same kind of soil as advised for seed-sowing, but do not sift the manure or leaf-mould, this being better if left in a flaky condition. Set the seedlings 3 inches apart each way, and after the box is finished give the soil a surfacing of clean sand. After watering stand in a warm greenhouse or frame until well established; then gradually give more air until the plants are hard enough to go in the cold frame, from whence they can be transferred to their open quarters about the third week in May. From now until the middle or end of April a sowing should be made about every ten days, after which seeds can be sown in the open. Plants from seeds sown outdoors early in May frequently give a grand display of flowers late in the autumn.

These Asters are represented by several well-known types, that known as the Comet being perhaps the most graceful and beautiful of all, the large, reflexing flowers reminding one very much of Japanese Chrysanthemums, as may be seen in the accompanying coloured plate, the splendid varieties there shown being raised by Messrs. Sutton and Sons of Reading, and who kindly supplied the blooms from which the painting was made. Ostrich Plume, Victoria, French Pæony-flowered, ordinary single and Ray Asters are all distinct types and all have their special merits, each being obtainable in a variety of colours.

THE QUAINT SNAKE GOURD IN THE ROYAL GARDENS, KEW.

THE FLOWER GARDEN.

GOURDS IN THE GARDEN.

A PICTURESQUE WAY OF USING THESE QUAINT FRUITS.

THE great variety in size and shape, as well as in the colouring of the fruits of these plants, make them valuable and interesting in the garden. They range in size from the miniature Gourd of barely an ounce up to the Mammoth Pumpkin, which grows to an enormous size under favourable conditions. They are all readily grown in this country, and there are several ways of using them with advantage. The smaller-fruited forms are admirably adapted for growing on low trellis-work or on arches. Others may be used for covering bare poles, as in the accompanying illustration. For covering arbours and providing shade with their large leaves they are very useful and effective, with the added attraction of various shaped fruits suspended from the Vines.

They may also be grown on raised mounds or banks, or even on the level ground, like the Vegetable Marrow. In the autumn the fruits of the smaller and more ornamental kinds when cut and dried are available for house decoration. They remain in good condition and retain their colours for a considerable time. Where heat is available seeds should be sown about the end of April, and if the plants are potted on as they require it they will make good big specimens ready for planting out in June. They may also be raised in a cold frame by sowing seed at the same time. These plants will not be so large as those raised in heat, but they will grow away quicker when planted out. Rich soil and plenty of manure are necessary, with plenty of water when growing. A selection of the smaller-fruiting kinds should include the Egg Gourd, Orange Gourd, White Pear, Green Striped Pear, Bicolor Pear, Early Apple, Striped Tomato, Warted Gourd and mixed miniature Gourds of endless shape and form. Among the larger ones the most ornamental are the forms of Turk's Cap Gourd, which are rich in colour and attain a good size. Very luxuriant growers are the Siphon Gourd, Bottle Gourd and Hercules Club Gourd; just the plants for rapidly covering a large area of trellis-work. On account of its weight and size the Mammoth Pumpkin requires to be grown on the level ground. One of the most curious is the Snake Gourd with its crooked fruits.

SWEET PEA CHAT.

GERMINATION OF SEEDS.—It is good to know that seeds, as a rule, are germinating grandly this season. Reports from all sources are excellent, and there appears to be little doubt that the average of growth is far higher than it has been during the past two or three years. Naturally enough, one does hear a few complaints; but investigation almost invariably leads to the definite conclusion that the failures are due to errors of management. Reference is, of course, here made to seeds that were sown in pots, and, as far as can be gleaned, the common mistake lies in keeping the soil a great deal too moist. That there must be moisture present is perfectly obvious; but that the compost should be kept practically on the verge of mud is absolutely wrong. When such conditions prevail, some varieties, such as Etta Dyke,

will rot, while others will germinate only to be immediately killed by the wretched state of the soil. It is impossible to say how often water ought to be given, as so much depends upon the compost used, its firmness in the pots and the temperature of the structure in which the receptacles are accommodated; but the rule should be never to apply water until the soil is approaching dryness, and if this is followed up failures will be few. Some of the varieties having mauve in their colour are very ugly in the seed, and the plants are often weak in starting; but if they are carefully watered the seeds germinate well, and the plants soon put on a strength that is nothing short of astonishing considering the appearance of the seeds from which they sprang. The secret of success lies in close attention to details and full consideration of all the conditions that surround the plants.

Plants in Pots.—If the seeds were placed in a greenhouse for germination, the earlier they can be placed in a frame after the seedlings show through the surface the better. The probabilities of drawing will then be considerably reduced, and the progress made will be far hardier than would be the case in the warmer structure. As much fresh air and light as possible must be admitted to the plants, and watering must have more than usual care, as the young roots are tender. To keep saturating the soil with cold water will inevitably mean that many of them will rot away, and the plants that remain will receive a check at the outset, from which it is well within the bounds of possibility that they will never fully recover. If the drainage is right and water is given just before the soil in the pots becomes dry, progress will be uninterrupted, and if the plants do not do as well as their grower thinks they ought to have done, it will not be the fault of errors in watering.

Birds.—When the seedlings have made good growth, there is no question as to the desirability of having the lights off the frames at practically all times, except during torrential rains; but it is absolutely necessary that birds shall not have unobstructed access to the young plants, or it is certain that they will top them beyond the bounds of all reason. To circumvent them, a wooden framework of the same size as the light should be made and have small-meshed galvanised wire nailed on to it; then when the light is off let its place be occupied by the wire, and the birds will be barred admission. This device is exceedingly simple, inexpensive and most effectual, and should be regarded as an essential accessory to successful Sweet Pea culture in frames.

Slugs.—These slimy visitors will have to be reckoned with, and unless they too are suppressed one must not look for the most gratifying results from the plants. Each evening it should be the invariable rule to go out after dusk with a lamp and search assiduously for the enemies, all that can be found being placed, with more or less care, but with the utmost enthusiasm, into a pot of salt; after that they will do no further damage either to Sweet Peas or anything else. Frequent light sprinklings of soot and lime will also be found advantageous, but odd dressings will do scarcely any good. Spencer.

NOTES ON ROCK PLANTS.

There is no season in the year more pregnant of possibilities for future success than the present, and especially does this apply to those dwarf perennial plants and bulbs which we invariably regard as denizens of the rock garden. It will be found at this season that with nearly every occupant of the rock garden some displacement of the soil has occurred during the winter, thereby exposing the crowns, rootstock and, in some instances, the roots to the drying influence of sun and air, or some, notably Primulas, will be entirely out of the ground. In the latter instance replanting is imperative; but in the majority of cases top-dressing alone is necessary. This in practice consists of working in fine, rich soil, crushed chalk or stone chips, as the case may be, among the branches and crowns, having first pressed the plants back into the ground and made the soil perfectly firm around them.

At this season, too, we have good reason to look up all these diminutive treasures, particularly those of a deciduous character. When vacancies occur, no time is more opportune than the present to make good these deficiencies, and in like degree now is the time to add to or increase our collections, as the plants will have every chance of establishing themselves before flowering, and in every case they will be perfectly inured to local conditions before the following winter.

For several reasons it is often advisable to leave vacancies for the sowing or planting of annual and biennial species later in the spring; Portulacas and Mesembryanthemums if put out as small plants in June will bring a degree of interest and wealth of blossom to the rock garden in autumn that few other plants can equal, and as both succeed under the most trying conditions, such as upon hot, sandy slopes, their value in this respect can scarcely be overrated. We have also dainty annual subjects in Saxifraga Cymbalaria and Sedum cæruleum, both very beautiful when self-sown in the mimic walls of a rock garden. A beautiful and brave little annual is Meconopsis heterophylla, which enjoys a cool, stony root-run among rock plants; the flowers are Poppy-like and of a rich shade of orange, each petal having a purple blotch at the base. The growth is extremely slender; the flower-stems under the best conditions attain a height of 18 inches, and when cut last from four to six days in water. Among other choice annuals for this position is Asperula azurea setosa, a charming little blue-flowered Woodruff; Anagallis, blue, an annual with flowers as blue as the Gentianella; and Ionopsidium acaule, the Portuguese Violet Cress, having lilac or pale lavender flowers. Biennial species will include Silene Armeria, a rich crimson flower produced in flattish heads on stems varying in height from 9 inches to 18 inches, and best suited in poor, stony soil in the sun. Androsace filiformis, A. septentrionalis and Saxifraga mutata are each interesting if less showy than some allied species.

Every rock garden intelligently planted, with the primary object of giving pleasure to its owner, will include selections of the commoner and easily grown species and varieties, as by employing these we captivate and draw the interest; then, if the whims and fancies of the rarer plants are carefully catered for, these will, upon closer inspection, invariably deepen this interest and awaken enthusiasm.

Among the good things which amateurs will never regret adding to their collections are the following: Anemone alpina, large white flowers, pencilled slate on the reverse; A. sulphurea, the yellow form of alpina, will not succeed in lime; A. vernalis, downy stems and lilac white flowers, needs same soil as sulphurea; Campanula barbata, pale blue pendulous blossoms; C. pulla, dwarf purple bells, will not succeed in lime; C. pulloides, a very rare plant, large purple bells; C. Zoysii, dwarf, distinct pale blue flowers, contracted at mouth; Edrainthus (Wahlenbergia) serpyllifolius, upturned purple bells, tiny Thyme-like leaves; E. pumilio, silvery foliage, upturned violet purple bells; Daphne blagayana, creamy fragrant flowers in clustered heads, no lime; Omphalodes Luciliæ, glaucous grey leaves and lovely blue flowers; Oxalis enneaphylla, rose-white flowers nestling among glaucous leaves, no lime; Lithospermum graminifolium, pendent blue flowers on arching stems; Gentiana verna, brilliant blue on single stems, the finest spring species; G. septemfida, crowded heads of bright blue in autumn; Saxifraga Boydii, tufted growth, large lemon flowers in spring; S. B. alba, equally free in growth, flowers white; S. burseriana, tufted Juniper-like growth and large chaste white flowers; S. b. major, a finer and exalted form of the type; and S. Salomonii, tufted, as in the former, taller stems, flowers in two or three. All the preceding are among the most fascinating and beautiful of all hardy plants, and are worth growing in any rock garden. Of course the list might be very much extended, and it is difficult to make a selection when the material to select from is so plentiful and good.

Thomas Smith.

Walmsgate Gardens, Louth, Lincs.

A FLOOD OF FLOWERS IN MAY-TIME.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Now is an excellent time to plant Gladioli, and no garden should be without at least a few of these beautiful bulbous plants, the flowers of which are so welcome in the autumn, both for garden decoration and for the house in a cut state. The beginner will not often be able or willing to devote a whole bed to them, but a few clumps may with advantage be accommodated in the border, about five corms forming a good-sized clump. They like a deeply worked, well-enriched soil and an open position, and unless they can be given these it is of little use to attempt their culture. In planting, make a hole about 18 inches in diameter and 5 inches deep ; place a 1 inch thick layer of sand in the bottom, and then arrange the corms from 6 inches to 9 inches apart on this, after which sprinkle more sand over them and fill in with soil. The positions where they are planted should be plainly marked, so that there will be no fear of their being disturbed. The pruning of Roses will now, or shortly, demand attention, but as this operation is so frequently dealt with elsewhere in THE GARDEN, a reminder only is necessary here. Commence with the hardiest varieties, such as the Hybrid Perpetuals, Rugosas and Briars first, and leave the Teas until the first or second week in April.

Vegetable Garden.—A good planting of an early Potato may now be made, especially if the tubers have been exposed to light and sprouted as advised some time ago. This year I am growing Midlothian Early, a splendid white kidney, raised, I believe, by Messrs. Dobbie and Co. of Rothesay. This comes into bearing very quickly, and is of excellent quality. The most sheltered portion of the garden should be selected for this crop. Plant in drills 18 inches apart, and place the tubers about 9 inches asunder in the rows ; late crops of stronger-growing varieties will require more room than advised for this early planting. I prefer to take out a hole for each set with the spade ; if a dibber is used, especially if it be sharply pointed, the Potato does not go to the bottom of the hole, and in soils of a clayey nature the sides of the hole are solidified so that roots have a difficulty in spreading. Six inches is a good depth to plant. For the outdoor crop of Tomatoes seeds may now be sown under glass, and if given good treatment and grown on near the glass, the plants will be of excellent size for planting out the first week in June. It is essential that the plants do not receive a check to growth, and for this reason they must not be allowed to suffer for want of water nor become root-bound in their pots. Carter's Sunrise and Sutton's Open Air are two good varieties for outdoor culture.

Fruit Garden.—Where Peaches and Nectarines are flowering on walls it will be necessary to give the flowers some protection from cold winds and also from frosts at night. A double thickness of old fish-netting suspended in front of the trees usually suffices ; but it must be so fixed that it does not come into contact with the blooms, or they will be bruised and damaged if winds prevail. Plantations of Raspberries may be successfully made now, but all newly planted canes, whether put in last autumn or now, should be cut down to within 6 inches of the soil ; by doing this, strong young canes for fruiting next year will be encouraged to grow from the bases of the plants.

Greenhouse and Frames. — Gloxinias and Achimenes that have been resting during the winter will now, or shortly, be starting into growth and will need attention in the way of repotting. Shake the tubers out of the old soil and repot in fresh material, composed of loam and peat, one part each, and silver sand half a part. Where peat cannot be obtained, decayed leaf-soil, or dried, flaky manure may be substituted. The Gloxinias may be repotted at once into pots, those 4½ inches or 6 inches in diameter, according to the size of the tubers, being generally the best sizes to employ. Place the tubers so that the top of each is just below the surface of the soil, one tuber to each pot. Achimenes I prefer to start in shallow boxes or pans ; then when the shoots are 1 inch or rather more long, transfer them to their flowering pots or baskets. Where the latter are used some of the plants should have their tops pushed through the bars at the side, as by so doing a well-clothed basket is secured. Repotting will now be in full swing, and care in watering, as advised a few weeks ago, will be particularly called for. All established bedding plants in frames will need more air every day, as it is absolutely essential that their tissues be well hardened before they are planted outdoors. H.

1.—A SUITABLE STOCK FOR CLEFT GRAFTING AND TWO SCIONS FOR INSERTING THEREIN.

PROPAGATION OF FRUIT TREES BY CLEFT GRAFTING.

TONGUE, or whip, grafting and crown grafting have both been dealt with in earlier issues, and in the present instance it is our desire to call attention to what is known as cleft grafting, which, although the method is different from either of those already described in detail on former occasions, may be accomplished with equal ease and satisfaction. Cleft grafting may be adopted in the case of all stocks more than 1 inch in diameter, so that where tongue, or whip, grafting could not be carried out satisfactorily, because the stocks were inconveniently large, it is most useful. It is possible, of course, to operate on the main stem of the tree, but the results would be far more satisfactory were the operator to shorten back the main branches to within about 1 foot or 16 inches of the main trunk of the tree, working two scions on each branch, or alternating cleft grafting with crown grafting on these, and in this way bring into effect a tree with a good head that should yield a supply of fruits within two or three years of being grafted.

In Fig. 1 is a representative portion of a stock that is suitable for cleft grafting. On either side of the stock are to be seen scions of the variety we wish to graft on the available stock. A careful scrutiny of the stock reveals the fact that this is cut straight through in as clean and neat a fashion as possible. For cleft grafting the scions should be growths that are two years old or more, by which time they should be about as stout as one's finger. What is of considerable

2.—METHOD OF PREPARING THE STOCK AND SCIONS. NOTE THE CLEFT IN THE STOCK AND THE WEDGE SHAPE TO WHICH THE LOWER PORTIONS OF THE SCIONS HAVE BEEN CUT.

importance is that the scions should be perfectly healthy and of nice, clean growth, and they should have two to three promising buds clear above the stock when adjusted in position.

Fig. 2 illustrates how both stock and scions should be treated. We will first consider the stock, and will require the aid of a stout chisel and mallet to achieve our object. The cleft is made right across the stem, in the centre as near as possible, and the opening made sufficiently deep to enable the operator to insert the scions with comparative ease. The illustration in the centre of this figure aptly portrays the nature of the cleft and where it should be made. That the scions may be properly adjusted in position it will be necessary to leave the chisel in the centre of the cleft, and after they are inserted it may be withdrawn. In this same figure we have endeavoured to make quite clear how the scions should be prepared. A good length for a scion is about 6 inches ; those in the illustration are rather longer. On the left of the picture the manner of preparing the scion is clearly portrayed. It is cut in the form of a wedge, and the cut is some 2 inches to 3 inches in length. It is important to make the cut rather thinner on the inner side of the scion, as this assists to make a closer contact between scion and stock where they join on the outer edge. The scion should be thinner opposite to the bud. On the right of

3.—THE SCIONS ADJUSTED IN POSITION.

the illustration in Fig. 2 it is clearly portrayed how the wedge-shaped cut should be made. All is then ready for adjusting the scions in position.

Fig. 3 illustrates the scions properly inserted in the cleft made for their reception, and the careful carrying out of this work is of the utmost importance. What must be ensured is the close contact of the bark of the scion with the bark of the stock where the two join in the cleft. Unless this can be done, it is useless to expect the results to equal our expectations. At this point it is well to bear in mind that if the branch operated on be of a bending nature, one graft only should be inserted, and this on the upper side; if, on the other hand, the branch be upright in character, as depicted in the illustration, two scions may be inserted quite satisfactorily. Note the even finish of the adjustment of the scion and stock.

When the scions are fixed in position, as shown in Fig. 3, they must be made perfectly secure by being carefully tied. For this purpose they are tightly bound round with stout raffia or bast, or where tarred twine of a soft nature can be obtained, this should be used in preference to all other material, as it stands the weather better and is more reliable.

The tying being completed, the cleft should be completely covered with the grafting wax as shown in Fig. 4. Not only should the top of the cleft be covered with this mastic, but down both sides too, applying the material as low down as the stock is split. An air-tight condition of the graft must be ensured, and then we have little fear for the results. D. B. C.

SEAKALE FOR AMATEURS.

WHILE it is a fact that few winter vegetables are more acceptable when well cooked and served to table than Seakale, and few, indeed, furnish a greater amount of real food from a limited space, yet its culture is little understood or practised by amateur gardeners, and really not infrequently by a large section of professional gardeners. A plot of ground, which is 16½ feet square, is but a small plot, after all, in any ordinary garden; but it suffices to produce, if at the proper season planted with root-cuttings, about 200 roots, which will, when gently forced in the winter, give an equal number of heads, and thus provide some twenty excellent dishes of delicious vegetable matter. If a rod of ground seems too much for an amateur, then be content with half that area. The first thing to be done, and done at once, is to have the allotted ground trenched 2 feet in depth, burying down and mixing with the lower soil a liberal dressing of half-decayed manure, then giving to the top soil a further dressing of the same and forking that in. Ground so treated will grow Seakale finely and, after the roots are lifted in the winter, Peas or Beans also well without any additional manuring. Then the stock of roots has to be obtained. This, at the first, may be done by purchasing, if possible, enough root-cuttings of Seakale, 100 for half a rod, and double that number for a full rod. Failing to obtain these, seed can be purchased and sown, half a pint or a pint costing very little. Both planting or sowing may be best done early in April, in drills 20 inches apart for the seed, or in rows of the same distance apart for root-cuttings. For seed the depth should be 2 inches. The seeds are generally sold in their shells, which take a little time to soften in the soil, hence some four weeks elapse before the seedling plants are well up. When all have grown, it will be wise to thin out the seedlings to 12 inches apart in the rows, thus giving ample room for root development and leaf spreading.

During the season, especially if a couple of thin sprinklings of salt or nitrate of soda be given in June and July and well hoed in, the weeds being rigidly kept down, the strong leafage from the plant covers the soil and thus assists root and growth. In the late autumn the leafage dies away, and after that, at any time, the roots may be lifted and prepared for forcing by hard cutting off all side or branch roots, using these to make root-cuttings for the following year, the main roots and crowns being laid in thickly and erect in loose soil, from whence during the winter they can be taken and put into a dark place in warmth to have blanched heads for eating. As the basal or branch roots are cut off, all should be laid one way, the portions cut from the main roots being uppermost. Then the making into cuttings is simple. These should be 5 inches in length, having on the top end a clean, level cut and on the bottom end a slanting cut, thus enabling the planter to place the right end upwards in the holes. These may be made 12 inches apart in the rows by a hand-dibber and be deep enough to allow the tops of the cuttings to be just covered with a little soil. If the ground is ready, the planting may be done at any time; but generally, as this work of lifting the crop of roots and trimming them is done in November or December, the ground for the reception of the cuttings may not have been prepared. In that case the root-cuttings should be placed thickly in a furrow 6 inches deep, standing them erect and filling up close with loose soil. There they may remain till the early spring, then be planted. A. D.

THE TOWN GARDEN.

PRUNING ROSES.—It is the better policy to leave the work of Rose tree pruning until the end of March in town gardens, and so escape late frosts, a fog-laden atmosphere and some of the cold east winds, than to do the work early in the month and so subject the new shoots to the above-mentioned adverse conditions. It is not possible to give detailed instructions as to the right way of pruning individual varieties in each section in this column, but I will give some general hints which will be helpful. The amateur Rose-grower takes a great pride in doing his own pruning, and when he has had some experience and hardened his heart the Hybrid Perpetuals will be pruned much more severely than formerly. Of course, the stronger-growing varieties must not be pruned so severely as those of less robust growth even in this section, because the resultant young shoots would gain unduly in strength, so we leave four or six buds at the base of the strong Hybrid Perpetuals and two or three at the base of the branches of the weaker-growing varieties. Hybrid Tea Roses must not be pruned quite so far back as the Hybrid Perpetuals, and the Teas must be duly thinned out so as to prevent overcrowding. Where the latter are trained on walls, pergolas, arches and pillars, all the very weak shoots ought to be cut out from their base, a few others also if they appear to be very much crowded together, and one or two fairly strong branches may be cut off near their base, so as to induce the growth of a few very strong basal shoots to renew the vigour of the tree again. Where Teas and climbing Roses, such as the Crimson Rambler, contain a number of old branches and only a few young ones, remove the old ones entirely and retain the young shoots intact; also retain the young sucker-like shoots of Moss Roses.

TOP-DRESSING ROSES.—Newly planted Roses must be top-dressed before the soil becomes dry on the surface. The half-rotted manure is put on to prevent dry winds reaching the roots as well as to maintain the surface soil in a moist condition. The cultivator ought to guard against over-dryness of the soil round the roots of recently planted specimens, as the latter require all the help that can possibly be given them. Old bushes well established in the beds must also receive attention as regards surface mulchings, and wall-trained trees especially need the assistance of top-dressings.

VIOLET PLANTS IN FRAMES.—The plants will be flowering freely now, and every care must be taken to keep them strong and healthy. In town gardens this is a more difficult matter than in country districts, on account of the fogs and, in some instances, the fumes from chemical works, but air must be admitted freely every fine day, and during the night also. Remove the glass lights entirely on sunny days and when the atmosphere is clear. It should be remembered that a stock of runners must be secured in a few weeks' time for future use, and they must be strong, too, so that free ventilation will greatly benefit them as well as the old plants and their flower-buds. Keep the soil loose on the surface and apply water more frequently than in the depth of winter. The soil near the outside of the bed gets dry sooner than that in the centre, and it will be necessary to water the outer portion of the bed more often than the central.

HARDY ANNUALS.—The time will soon come when all kinds of hardy annuals must be raised from seeds sown in the open border. There ought not to be much difficulty in getting a good seed-bed, as the soil dries quickly now. There must be no attempt at smoothing down the surface of the border soil at the present time; this work must be left until the time of the actual sowing of the seeds. The cultivator ought now to dig up any portion of the borders that has not as yet been so treated; and furthermore, a quantity of well-rotted manure must be well mixed with the soil, but leave the top 3 inches free from manure. Then the seeds will germinate in a suitable medium, and the resultant seedlings will quickly benefit from the enriched soil below. AVON.

4.—THE SCIONS TIED IN AND THE JUNCTION PARTLY COVERED WITH GRAFTING WAX.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

INDOOR FRUIT.

VINERIES.—Houses in which Vines are at the flowering stage should have a night temperature of 70° and a little less on cold nights in preference to very hard firing. Keep the atmosphere drier until the blooming period is past. The flowers should be carefully fertilised about midday by giving the trellises a good shaking and carefully drawing the hand very lightly over the bunches. Those who do not care to venture the latter method may employ a rabbit's tail, this being tied to a small Bamboo cane and gently drawn over the flowers daily till the berries have set. Any Grapes requiring thinning must not be neglected but thinned early, when the work is more quickly got over. Large, unshapely bunches may be trimmed a little into shape to give the whole a more uniform appearance and also to encourage the size of the individual berries.

Peaches and Nectarines.—When the fruits have set and are going through their first swelling, remove a portion of the smallest fruit, aiming as far as possible to preserve those on the upper sides of the shoots so that they may benefit by the sun at a later period. It is preferable to remove a few at intervals, and finally reduce to the quantity which the trees are intended to mature just previous to the stoning period. Keep pace with the disbudding until only those growths required for filling up space and for the following year's fruiting are left. Tying the young shoots when only a few inches long must not be overlooked. One tie about 2 inches from the base to encourage a straight growth will be ample for the present.

KITCHEN GARDEN.

Tomato Plants growing in 5-inch or 6-inch pots, and which have filled the soil with roots, may now be transferred to their fruiting pots. The soil for this crop need not be of the richest nature, a good sweet loam, burnt earth and a quantity of Mushroom manure being suitable. See that the drainage is ample and pot firmly, leaving a few inches for top-dressing after the fruits are set. Be careful not to over-water until the roots have well filled the pots. Younger plants may be repotted before the soil gets too crowded with roots, and more seed should be sown to produce plants for growing in the open. There are many of the more choice varieties equally suitable for outside work, providing the plants are grown on to a good size and duly hardened before putting them out early in June.

Cucumbers.—When these have grown a few joints above the lower wire of the trellis the leader may be pinched to encourage side growths, and as these extend they may be similarly treated. Overcrowding should be avoided. Crop very sparingly till the plants are strong enough to bear the strain. Top-dress at intervals those which are more advanced and feed liberally with manure water, especially when the roots are rather restricted. Sow more seed to raise plants for cooler structures in succession to those which have been fruiting during the winter.

PLANTS UNDER GLASS.

Begonia Gloire de Lorraine.—Cuttings of these when ready should be planted. Use clean, well-drained pots filled with a rather peaty mixture and plenty of sand. Young, rather sappy pieces springing up from the base of the old plants will root freely and, with due attention, make good flowering plants by the end of the summer. Begonia nitida and several other fibrous varieties may also be propagated at this season and will develop into useful plants for winter flowering. Use plenty of sand in the mixture for all the cuttings of these plants, and also when they are increased by means of leaves.

Pot Up more Gloxinias and start them in a warm, moist temperature. Use good peat, charcoal, sand and a little fibrous loam. Young seedlings will need to be pricked off as soon as they are large enough to handle, otherwise they may damp off in the seed-pans. All seedlings must receive attention at this important stage of growth. Seedling plants just appearing above the soil will be all the better if a little dry sand is lightly sprinkled among them. This keeps the tiny roots more firm and free from exposure to air.

H. MARKHAM.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

VEGETABLE GARDEN.

SEAKALE.—Where lifting the roots of this highly esteemed vegetable is practised, a few should be placed in warmth about every ten days to maintain the supply of usable produce. A temperature ranging from 50° to 60° is ample at this season, hence the Mushroom-house generally affords suitable accommodation. Before surplus roots commence to grow naturally, they should be inserted a few inches apart in a border having a north aspect in such a manner that pots or boxes can be placed over them, and all covered with leaves or litter to exclude light and frost, thus prolonging the supply considerably.

Planting Seakale Thongs.—These selected and prepared some time ago may now be planted in lines 2 feet apart, with rather less space between them in the row. A deeply worked, well-manured soil is necessary to produce good crowns, and to ensure success in many districts the plants require two seasons' growth before being lifted for forcing. The thongs, having been kept in moist soil or ashes, will now be moving at both root and top. Their insertion in the soil is best accomplished by means of the dibber, the crown being left slightly below the surface, and if covered with a handful of coal-ashes slugs and frost will both be guarded against. The more laborious practice of covering the crowns where grown, and placing around large quantities of fermenting material to induce growth, is less in favour than formerly. Excellent produce, however, is obtained by this method, and a less bulk of material is now required than earlier to attain the desired end.

Horseradish finds a regular demand, and to grow large, straight roots a new bed should be formed each year by trenching two spades deep and putting a good supply of strong manure beneath. To obtain planting thongs, dig over a portion of an established bed and select therefrom the requisite number of long, slender rootlets, with a crown attached to each if possible. Plant these at 15 inches apart every way in the same manner as advised for Seakale.

Celery, Chicory, Salsify or other root crops of last year, if still where grown, might with advantage be raised to check any tendency to growth, and be relaid in soil in some cool, sheltered position in readiness for use.

FLOWER BEDS AND BORDERS.

Gladioli corms may now be planted, using some good soil or sand (sea sand is preferred) around each corm, which, when finished, should not be less than 4 inches from the surface. Where many are grown, five lines in a 6-feet space, having a pathway between the series, is a very convenient method. Clumps of from three to twelve corms in prominent positions in mixed plant borders have a good effect when in flower. To get good spikes of bloom by the middle of August, corms may be potted and encouraged to grow for a time under glass, to be eventually planted out when danger of severe frost is past.

Perennial Plants that have been wintered in frames or lately received from the nursery may now be planted out, using in every case a small quantity of good soil about the roots. Any that display tender growth may with advantage have some evergreen sprays placed around them for protection. Propagation of perennials must at times be carried out, and may be consummated in various ways. At the present time, with growth starting, it is an easy matter to go through the collection of established plants and detach small portions that are spreading outwards, planting these upon a reserved border to gain strength in readiness for transference next autumn to a fresh site, when the older stock may be discarded.

HARDY FRUIT.

Filberts and Cob Nuts are best pruned when in flower, and the thinning of the bearing wood may be regulated by the number of crimson-tinted female buds that are present. All sucker growths and others that tend to crowd the central part of the trees should be cut clean away. Catkins are usually plentiful, and by shaking the branches on a dry, warm day the pollen therefrom is freely dispersed. Should the reverse of this prevail, catkin-bearing branches of the common Nut may be brought from the woods and be placed about the trees to effect a proper set.

JAMES DAY.
(Gardener to the Earl of Galloway.)
Galloway House, Garlieston, Wigtownshire.

GROWING CUPID SWEET PEAS IN BARRELS.

IN reply to requests in THE GARDEN for hints on growing these dwarf Sweet Peas, as far as my experience goes the barrel system has proved the most satisfactory, both for effect and duration of bloom. I have tried them in various ways, in beds and in ribbon borders, but with very little returns as regards bloom, the result being the dropping of the flower-buds; and where slugs abound it is useless to try and grow them on the flat ground. Now, whether it is the elevated position on the barrels, with the free access of the sun and air, or the composition of the soil and treatment that make them so free flowering and non-bud dropping, as seen on page 78 of THE GARDEN, I would not like to say. One thing is certain—they like it. Barrels of a workable size, and what we use, are 3 feet 3 inches high and 22 inches broad at the top. Paint the outside a slate colour. Bore a few holes in the bottom for drainage. The first row of holes for the reception of the plants should be 6 inches from the bottom and 8 inches apart round the barrel, the second and remaining rows of holes being 3½ inches apart and bored in a position between the first row, thus: * * * *. Continue and finish the last row 2 inches or 3 inches from the top. The holes should be 2 inches in diameter.

The soil to be used is important. These little plants are ravenous feeders and produce a mat of roots. Some time previous to planting chop up two parts loam (not too fine), one part decayed manure, half a part leaf-soil, and add a 6-inch potful of bone-meal for each barrel with a little soot and wood-ashes. Mix thoroughly and keep fairly dry till wanted. Plants must be raised in pots or boxes—the former are best—inserting single seeds in 2½-inch pots any time from February to the end of March, and placing them in a cool greenhouse or frame. When they have made 1 inch or 2 inches of growth, gradually harden them off in a sheltered position outside and transplant to the barrel from April onwards, according to the locality.

Before proceeding to plant, procure a piece of small-meshed wire netting and make it into a cage 3 feet long and 7 inches across. Stand this upright in the centre of the barrel, fill it and make firm with short stable manure, which

should be fresh. This raises a gentle heat in the soil, and the roots find access to it later. Now put some crocks and rough soil in the bottom, fill up with the prepared mixture slightly past the middle of the bottom row of holes, and make this firm. Knock out the plants carefully from the pots and bring the heads of the plants through the holes from inside, using moss to block up the inside of the holes to prevent the soil from dropping out, fill up with soil again to the next row, repeating the operation till finished and watering as the work proceeds. Fill up the top as well.

When finished there will be about 100 plants round the barrel. At no time should they be allowed to suffer for want of water, and weak solutions of liquid manure as the soil becomes exhausted must be given. The plants naturally branch freely and soon cover the surface of the barrels. Seed-pods and faded flowers must be incessantly picked off. Although we have none of the much-boomed Spencer type in these compact plants, we have a fine range of colour. The best are White Cupid; Boreatton, dark; Captain of the Blues; Firefly, scarlet; Royalty, rose; Primrose, cream; Stella Morse, buff; Pink Cupid and Countess of Radnor, heliotrope.

JAMES RAE.
(Gardener to Lord Northesk.)
Ethie Castle, Arbroath, N.B.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Dwarf Carnations (*E. M. D.*).—The Marguerite Carnations would not be reliable as a permanent edging, and possibly not quite dwarf enough for your purpose. The ordinary forms of the garden Pink would be immensely superior and, while requiring a minimum of attention, would provide you also with a maximum of beautiful and fragrant flowers. A pretty form with dark centre is Dianthus fimbriatus, and there are also the double varieties Mrs. Sinkins, Her Majesty and others. You should endeavour to obtain young or freshly rooted plants as opposed to old, worn-out examples. Whether the single Chrysanthemums will stand the winter out of doors depends very much upon the local conditions, but we think they would do so in your case. It does not follow, however, that the best are also the hardiest; that is a matter for testing, and the behaviour of a variety differs with the locality. The following are good and distinct: Nancy, pink; Mrs. Earle, white; Brightness, yellow; Ruby, crimson; Alexandra, crushed strawberry; Canada, salmon; J. H. Runchman, terra-cotta; Gem of Merstham, deep crimson; and Florence Gillham, white.

Information about Iberis (*E. T. H.*).—No, Iberis gibraltarica is not so good in flowering, nor is it so reliably hardy nor so good a perennial. I. correæfolia is a very fine one, however, if you get it true, pure in colour and compact. A very excellent plant is the double white Arabis, easily grown and increased and free-flowering withal. The white-flowered alpine Phloxes (P. Nelsonii and P. The Bride) are very desirable plants, but they may not be suitable to your case. You could, however, give some of them a trial. You omitted to send your address, hence the delay in replying.

Culture of Calypso borealis (*J. K. M.*).—This is a hardy member of the Orchid family, and cannot be regarded as a plant of easy cultivation. It succeeds best in half-shady spots on the margins of a rock garden or artificial bog in a light, moist vegetable soil, such as peat, leaf-mould and sand well mixed together.

Pinks, Violets and Sweet Peas (*H. H.*).—The only reason that we can give for the Pinks going wrong is that the plants were poorly rooted and so indifferently planted that snow and frost have proved too much for them. It may be also that wireworms have attacked the plants, but this you could discover by an examination of the stems. In planting the Pink freshly-rooted cuttings are the best, and the leaf-tufts should be planted firmly and nestle on the surface. Vigorous young plants are hardy in the extreme, but old, feebly rooted pieces rarely do much good. La France is probably the Violet you require, and there is also Princess of Wales, both being of large size. Old Russian is good, hardy and free, but smaller in size. Freshly rooted young plants are the best, as the seedlings do not come true. A light dusting of the soot will do no harm to the Peas; indeed, it is an excellent fertiliser and will do good. At the sides of the rows give a heavier dressing to the soil and hoe it in.

Dahlias for India (*Rob Roy*).—In reply to your request for the names of different types of the Dahlia, we append the undermentioned list. We can hardly say they are arranged in their order of merit, as many of the varieties therein included are of equal merit: Eighteen show—David Johnson, Octavia, James Cocker, Standard, Daniel Cornish, Mrs. Stephen Walker, Delicacy, Mariner, Claret Cup, A. M. Burnie, David Johnson, Florence Tranter, R. T. Rawlings, William Rawlings, Eclipse, Blush Gem, Sulphurea and Mrs. Gladstone. Twelve fancies—Mariner, Roy Seale, Mrs. Saunders, Buffalo Bill, Premier, William Sheldon, Mabel, Gold Medal, Mrs. John Downie, Chorister, Major Barttelot and John Cooper. Eighteen Cactus—J. B. Riding, William Marshall, Lucifer, Faunus, Hilda Shoebridge, Ruby Grinsted, Mabel Needs, Conrad, Violetta, Dreadnought, Sunshine, Iris, Caradoc, Etruria, Victorian, Dr. G. G. Gray, C. E. Wilkins and Clara. Twelve Pompons—Bacchus, Doctor Jim, Darkest of All, Nerissa, Tommy Keith, Kitty Barrett, Rodney, Wilfred, George Brinkman, Neatness, Adelaide and Model. Six singles—Kitty, Stromboli, Mikado, Snowdrop, Polly Eccles and Serita.

Information about garden plan (*E. H. S. Eddy, New York*).—We are greatly interested by your letter, and are also gratified to learn that THE GARDEN is so helpful to you. We are not at all surprised that the arrangement does not satisfy you, for the dotting about of certain colours which are near akin to each other not only "teases the eye," as you say, but aggravates all one's ideas of good taste. These more or less objectionable shades of colour catch the eye too frequently in a garden where so much is to be seen at once, and, however desirable such things might prove in gardening of a purely picturesque character, they are not likely to prove either effective or pleasing in a set of beds such as those indicated on the sketch you are good enough to send for our inspection. You appear to object to the straight-line arrangement, and the obvious alternative is to group or mass the subjects which are planted. The difficulty we see in the matter is that of altering without remodelling the whole, and, unfortunately, the entire series of beds and paths are laid out with geometrical precision, and the straight-line work of the original designer has been carried into the flower-beds in all directions, the larger beds nearer the ends showing this very conspicuously. In such a case the only way is to drop the formal style of planting, do away with the edging-like arrangement of Polyanthus shown and the set blocks of plants as noted at AA, &c., and in their stead plant free edgings of such subjects as Saxifraga Wallacei, white, 6 inches; Phlox Nelsonii, white; P. atropurpurea; P. Model, pink; Aubrietia Dr Mules, deep violet; A. Moerheimii, pink; A. Lavender, pale blue; Iberis sempervirens, white; I. correæfolia, white; Megasea (Saxifraga) cordifolia purpurea, reddish; Alyssum saxatile, yellow; and the lovely blue of the Hepaticas. Any or all of these would spread out over the margin, and, by breaking up the straight line, afford greater beauty generally. In dealing with any of these marginal plants one colour only should be used, though a set of beds may be treated with all white-flowered plants and so on, as the Pinks, Iberis and Saxifraga mentioned above. Then, in the general treatment of the beds, masses and not lines should appear, the former to be set out in free informal groups, whether these be of Lilies, Phloxes, Hollyhocks, Pæonies, Irises, Sunflowers, Michaelmas Daisies or any other plant. What we mean by free groups is the setting out of three, five or a dozen plants, say of a pure white Phlox or pink or scarlet, arranging the units not nearer than 18 inches, so that at flowering-time your present spotty effect may be transformed into effective groups. The same scheme may be followed with the Flag Irises, as I. pallida, I. Mme. Chereau, I. Dr. Bernice, I. aurea, I. Mrs. Darwin and others. Indeed, your centre set of beds could each be arranged with plants of one of these, and, if planted thinly, Lilies could spring therefrom for later work. In a further set Pæonies in pink, white, crimson and rose could be set out, one colour only in each bed. In such an arrangement Narcissus Emperor could be planted, or such as Empress, Sir Watkin and others to flower in spring, these and their leafage contrasting well with the colour tints of the Pæony stems and leaves. In other directions carpet plants, such as Anemone blanda and Muscaria conicum, might appear on the surface of the beds to flower first and afford sheets of colour. The Italian Starwort, Aster Amellus, is a plant to make much of and is splendid in August and September. It is 2½ feet high and violet coloured. Other good Asters are cordifolius, Novi-Belgii Arcturus, N.-B. densus, acris and lævigatus, groups of which should not be less than 3 feet—better still, if 6 feet—across, always appearing informally. Gaillardias, Hollyhocks, Columbines, Globe Flowers and single Pyrethrums in pink, rose and carmine are other important things to be made much of in such a garden as yours. Annuals, too, could be freely employed, selecting good sorts of decided colour in all. Beds of Roses wholly of one colour should be arranged, and a scarlet Rose having a groundwork of white Violas, with scarlet Lobelia or Gladiolus for autumn effect, is telling indeed and effective always. We cannot, of course, take up the place of the gardener on the spot; but if this latter idea of the Rose-bed is carried out more generally, with, of course, certain modifications, you have somewhat of our ideas of transforming your garden into a more effective whole. For effect we incline always to the use of self-coloured flowers, and by employing these in larger numbers obtain the desired results.

TREES AND SHRUBS.

Pruning Azara dentata (*Stephen R.*). You may cut your plants of Azara dentata back about the middle of April. If they are quite healthy there is no fear of them failing to grow again. Should the weather prove dry, you can assist them by syringing overhead twice a day until new shoots appear, which will probably be about the middle of May. After your plants are furnished with young wood, you can keep them within bounds by an annual pruning in April.

Paths of Thyme and Heather (*C. C. S.*).—The dwarf kinds of Thyme and Heather will certainly be the most suitable ones for your paths. The varieties of Thyme you mention are good, and in addition to Erica carnea you can use E. mediterranea hybrida, E. cinerea, E. multiflora, E. vagans and varieties, and Calluna vulgaris. You can keep them dwarf by cutting them over annually as soon as the flowers are over. A very good plant for the work and one that will keep dwarf naturally is Empetrum nigrum, a dwarf evergreen, which grows rapidly and forms a nice carpet. You might also try some of the dwarf but vigorous-growing Genistas, such as G. pilosa. Euonymus radicans is also a good plant for the purpose, while Ivy may be used. The best effects can be obtained by keeping the colours separate. Dwarf Saxifrages will form an efiective edging.

Treatment of Holly seeds (*N. N.*). You can keep your Holly seeds in sand until autumn if you like. They may be kept moderately damp and turned over occasionally. If you prefer it, however, you can sow the seeds at once; but it is doubtful whether any will germinate before twelve months next May. They are very erratic in their behaviour, and occasionally a few will germinate soon after sowing during the first year after being gathered. More frequently, however, they lie dormant for twelve months, and the majority appear after the seeds have been gathered eighteen months or two years, some appearing after the seeds have been sown three years. By keeping the seeds in sand the necessary changes take place just as if the seeds had been sown, and the ground can thus be utilised for some other purpose.

Destroying a tree stump (*R.*).—You may bore several holes in a large tree stump, say, three or four, or one will do. With several holes, of course, more saltpetre can be used and the stump will become soaked more rapidly. You will not find any great difficulty in igniting the stumps providing they have become well impregnated with the saltpetre and paraffin. The burning process is a slow one, as, of course, they smoulder away rather than burn rapidly. The larger the diameter of the holes the better.

THE GREENHOUSE.

Camellia buds falling (*E. L. Ridley*). The fact that the buds of your Camellia fall instead of opening may be due to any one of a number of reasons. The plant being either too dry or too wet at the roots, either now or previously, would account for it. Bad drainage would also be conducive to bud-falling. By suddenly taking the plant from outdoors last

autumn into a close atmosphere might also cause it, or the trouble may be due to keeping the plant in a very dry atmosphere. It is quite probable, however, that the plant has been allowed to become either too dry or too wet at the roots. It would be advisable to turn it out of the pot and examine the roots; if the drainage is bad, remove it and give all new. If repotting is necessary, use a compost of equal parts of fibrous loam and peat, with one part in six of silver sand.

Introduction of Primula kewensis (*Primula*).—This Primula was raised at Kew in 1898 and was put on the market in 1900.

Cattleyas gone wrong (*T. H. D.*).—We do not know whether you are subjected to smoky fogs during the winter, as they are very apt to cause the flowers of Cattleyas to go blind. If not, the trouble is probably caused by too low a temperature and an excess of moisture.

Roman Hyacinths a failure (*Mrs. O'B.*).—It is quite impossible to flower Roman Hyacinths in a satisfactory manner the second season. The best thing to do when the flowers are past is to throw them away. In the southern part of Europe, where these Hyacinths are largely grown for the English market, they are disposed of as soon as they reach full size.

ROSE GARDEN.

Budding Roses on standard stocks (*L. G.*).—This work is so very simple that we feel sure you will eventually succeed, as you possess that enthusiasm which enables one to surmount small difficulties that abound in horticulture. As you failed last season, we take it you still possess the standard stocks. If that be the case, you should cut back at once the lateral growths as close as possible to the upright stem. When this operation is finished there will remain nothing excepting the upright stem of the Briar. New growths will start from this stem as soon as the weather turns warmer, and when they are a few inches in length all should be cut away except three of the best, if possible placed at even distances from each other. It is into the basal end of such growths that the buds are inserted. In our issue of July 25 of last year you will find some excellent illustrations of budding Roses; but we would strongly advise you to make the acquaintance of some gardener or Rose-grower, who would teach you the art in a few minutes. Providing the buds are cut from wood or growths that are just fit and inserted in the stocks when the sap is flowing freely during early July, and they are carefully tied in, success is almost certain. We trust you will be able to carry out your intention of exhibiting at THE GARDEN Show, for we believe it is going to be again a great success.

Rose Solfaterre (*E. S. M.*).—This beautiful Noisette Rose you will find offered by Messrs. William Paul and Son, Waltham Cross, who could no doubt supply you with pot-grown plants, which are best for planting out under glass.

Potting Roses (*Sinclair*).—You cannot very well pot too firmly, providing the compost used is in the right condition. It should neither be too wet nor too dry. If on taking a handful and squeezing it it just holds together in a ball without breaking, it is in the right condition; but if too wet it will appear pasty, or if too dry it will crumble and fall away.

Iron *v.* wood as supports for Roses (*Sinclair*).—It is generally agreed by all practical rosarians that iron should be avoided as much as possible as supports for Roses. As you have the gas-piping, you could perhaps use it by placing indiarubber rings between the iron and the Rose tree at those points where the trees are supported with ties. Gas-piping is often used for arches, but usually wood in some form is associated with it so that the growths of the Roses do not come in contact with the iron.

FRUIT GARDEN.

Orange trees losing their leaves (*Orange*).—There is no doubt that the roots of your Orange trees are in a bad state, and the only thing you can do is to repot them. In the first place you must pick off the fruit, then turn the plants out of their pots and take away as much as possible of the old soil. It is very likely that the greater part of the soil will come away and that the plants may with advantage be put into pots smaller than they are now in. If such is the case, do so, as the main object is to restore the roots to a healthy state, and this cannot be done if there is a large mass of soil around the roots. The first consideration is to get the pots furnished with good, healthy roots, and after this shift into larger pots when necessary. The repotting should be carried out at once, a suitable soil for the purpose being equal parts of loam and peat, with nearly half a part of silver sand. This must be thoroughly mixed together before using. After potting the plants should be placed, if possible, in the stove; but if there is not such a structure available they may be stood in the warmest house you have. Enough water must be given to keep the soil fairly moist, but an excess will be very harmful. The plants will be greatly benefited by being lightly syringed three or four times a day. If placed in the stove after new growth is produced and the roots are active, the plants must be gradually inured to a somewhat cooler temperature.

Pears and Apples spotted (*W. N. B. D.*).—The trouble described is probably due to the attack upon the fruit of the fungus Fusicladium dendriticum, which attacks also the leaves and the shoots. Care should be taken that all dead and diseased wood is kept pruned out of the trees, and they should be sprayed before the buds burst with a solution of copper sulphate, 1lb. to twenty-five gallons of water, and again with Bordeaux mixture, at half the strength used for Potatoes, just after the buds burst, and a second time as soon as the petals have fallen. The ordinary winter alkali wash is of no use against this disease.

KITCHEN GARDEN.

Sowing Carrot seed (*B. W.*).—We have never previously heard or read of such an odd suggestion as yours. It would, we fear, be very difficult to force a piece of stick through a Carrot seed, as not only is the seed rather small, but it is hard. Such an attempt would probably result in splitting the seed and thus destroying it. But the suggestion is too absurd, as you may tell anyone who shall repeat it. If you want to have broad Carrots—by which we assume you mean those that are stout or thick—you should get the one known as Model, a short or stump-rooted variety. These roots, while about 7 inches long, often come fully 3 inches through towards the crowns. If you want a longer Carrot, say, from 12 inches to 14 inches long, then get New Intermediate, as this variety produces the stoutest roots. To have specially fine, handsome roots, make holes in the ground 12 inches deep in rows, using a pointed stake or crowbar, and 6 inches apart in the rows. Fill these and press down firm with sifted soil; then sow three seeds on the top of each. When the plants are up, pull out two and leave one only. Then you will get fine, clean Carrots.

Manures for Potatoes (*J. H.*).—Potatoes need as manures rather less of nitrogen (nitrate of soda or sulphate of ammonia) than of phosphates, such as superphosphate of lime or bone-flower, and of potash, as found in kainit and sulphate or muriate of potash. These two latter build up stout, woody stems and good starchy tubers. The nitrates tend to create rather coarse, soft leafage, which is not desirable. What is commonly advised as a good chemical Potato manure is 4lb. of superphosphate and 2lb. of potash well worked into the soil before planting the tubers, adding 1lb. of nitrate of soda or sulphate of ammonia, very finely crushed, sprinkling it between the rows of plants just before flat-hoeing them; these proportions are per rod area. The slip of paper you refer to seems to have been a chemical manure manufacturer's list, but that has no bearing on the immediate subject. The primary elements for manure are phosphates, as found in bone-flour, superphosphate and basic slag; potash, as found in kainit, muriate of potash and wood-ashes; and nitrogen, as found in nitrate of soda, sulphate of ammonia, rape meal and fish guano. Quantities of these for use depends much on the nature of the crop to be grown.

Selections of vegetables for India (*Rob Roy*).—Peas—Sutton's Invincible, 2½ feet to 3½ feet high; Sutton's Best of all, 3 feet to 4 feet high; Duke of Albany, 4 feet to 5 feet high. Beetroot—The Globe, Turnip-rooted, one of the earliest; Dell's Crimson, long rooted, for autumn and winter. Cabbage—Sutton's Earliest for spring sowing; Ellam's for sowing in August for spring and summer use. Carrots—First early, Scarlet Horn; for later use, Sutton's Favourite. Turnips—First early, Snowball; later, Sutton's Matchless. Cucumbers—Every Day and Rochford's Telegraph. Tomatoes—Carter's Sunrise; Veitch's Frogmore Selected. Marrow—Moore's Cream.

MISCELLANEOUS.

Maggots for identification (*H. Morris*).—The maggots you sent are no doubt the grub of the black flies you find in the summer and which belong to the genus Bibio. There are several different species of these flies, but without seeing specimens I cannot even guess to which yours belong. One which is very common early in the year (about the end of April) is known as the St. Mark's fly. I do not know of any liquid insecticide which will kill them when in the soil. You might try Kilogrub. As the flies are generally sluggish, you might catch many in a butterfly net.—G. S. S.

Lawn tennis (*Tennis*).—Your better plan would be to communicate with Messrs. Sutton and Sons, Reading, or Messrs. Carter and Co., High Holborn. An important omission from your letter is the nature of the soil, and as this will materially affect the choice of the seeds to be sown, and as these also vary in weight and other particulars, it is necessary that you state the character of the soil. It is important, too, that the soil be freed of perennial weed roots, and, so far as is possible, of annual weeds also, by hoeing prior to the final levelling for the sowing of the seeds. Showery weather in early April would be a good time to sow.

Information about springtails (*W. Laker*).—The springtails or Poduridæ, like other insects, lay eggs. The young hatched from these, however, do not undergo marked transformations like most insects, but gradually increase in size until they are fully developed, so that at no time in their lives are they grubs, flies, chrysalides or any other insect. Very little is known about the life-history of these little creatures, which are sometimes met with in extraordinary profusion, even on snow, glaciers and sheets of water. There are a large number of genera and species; they are all small, and are supposed to feed generally on refuse animal and vegetable matter.—G. S. S.

Various questions (*E. R.*).—The Iresine, of which a specimen is enclosed, is Iresine Herbstii. The pale colour in the leaves of your Cattleyas is undoubtedly caused by errors in cultivation, but what they are it is, of course, impossible for us to say. They may have been kept too hot or too cold or too dry at the roots. A lack of atmospheric moisture would have the same effect. We expect their roots are in a bad state, and that it would be an advantage to repot them now in a mixture of fibrous peat and sphagnum. There is a publication by Messrs. Sutton and Sons of Reading, entitled "Lawns," and another by Messrs. James Carter and Co., High Holborn, under the title of "Formation and Management of Lawns," either of which would be of assistance to you.

Grubs for identification (*Amateur, Bickley*).—The leathery grubs you sent are those of a two-winged fly belonging to the genus Bibio, very probably Bibio Marci or the St. Mark's fly. These flies frequently appear in large numbers in gardens about St. Mark's Day (April 25). They do not fly well, and are as often as not found coupled together. They are generally black, but there are several species, and they are no doubt harmful to the roots of plants. I expect you did not use sufficient of the Vaporite. I was unable to find any of the little white worms you mentioned among the moss, which was very dry by the time it reached me; please send up some more specimens. They could not have been young earthworms, or I should not have failed to find them. A solution of corrosive sublimate (bichloride of mercury), 1oz. dissolved in a little warm water and diluted with forty gallons of water before using, is said to be as efficacious as lime-water; this drug is a very strong poison.—G. S. S.

Plants in rooms where gas is burned (*Mrs. B.*).—Gas burnt in a room is certainly injurious to plant-life, though some are less affected by it than others. Whether one burner kept alight during the night will injure your plants depends upon several things, such as the distance the plants are from the burner, the height of the room, the ventilation thereof and whether the plants are tall or short. This last is important, as plants that reach up near the ceiling are more affected by gas than shorter ones. Plants most suitable for rooms in which gas is burnt are Aspidistras (both green and variegated), Aralia Sieboldii (often erroneously termed the Castor Oil Plant), Araucaria excelsa or Norfolk Island Pine, Cordyline indivisa and Ophiopogon japonica variegata (prettily variegated grass-like leaves). Of Ferns the best are Pteris cretica and P. serrulata, both termed Ribbon Ferns, with P. tremula and P. Wimsettii. Among Palms the most useful are Kentia belmoreana, K. forsteriana, Cocos weddelliana, Latania borbonica, Rhapis flabelliformis and Corypha australis.

Names of fruit.—*Boscobel.*—1, Alfriston; 2, Bow Hill Pippin.——*J. Davies.*—1, Margil; 2, Nelson's Codlin; 4, New Bess Pool; 5, Reinette du Canada; 6, Hollandbury.

Names of plants.—*Mr. C.*—Iris reticulata.——*T. C. C.*—Rose W. A. Richardson.——*H. J. O.*—Dendrobium nobile.——*A. M. C.*—Begonia polyantha.——*J. Ewington.*—Centradenia inæquilateralis (C. rosea).

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

ROOF GARDENING.

IT has been stated somewhere—I do not remember where—that to some extent at least roof gardening is adopted and finds favour in certain districts, both in China and Japan; but in all the pictures I have seen of houses and buildings in both of these countries the roof is usually set at so acute an angle as to almost preclude the possibility of success in any degree or form. Thinking that possibly a different type of roof prevailed in other localities than those represented by the pictures referred to, I sought out a travelling friend, who, for nearly a score of years, has travelled largely in both countries and who, as I write, is again on his way thither, to make enquiries, which resulted in a more or less negative reply. In short, he said, "If such things be, I have not seen them." Notwithstanding, in a conversation some years ago with the late Mr. F. W. Burbidge, that widely-read and far-travelled gentleman informed me that in certain parts of both China and Japan roof gardening was freely indulged in.

However, upon more than one occasion I have been asked to give lists of plants suitable for the purpose indicated, and the memory is refreshed on the point by letters which I have recently received on the same subject. In each of these instances the roof in question has been somewhat of an eyesore, and being within view of some of the windows of the dwelling, it was desired, by means of vegetable life, to shut it out from view. Curiously enough, too, a near neighbour of mine, having an ugly sheet-iron roof in his garden and much exposed to view, enquired a year or more ago as to the possibility of growing Sedums and other plants in boxes thereon to hide the bad effect of the roof, and the plants I then suggested he obtained and duly planted. In a large degree this attempt has been successful, and it might have been wholly so had a different method been adopted in the first instance. The original idea was that of planting in boxes, and these were not only too shallow in themselves, but raised on ledges or bearers so that they were subjected to continuous currents of air beneath, which, drying and parching the soil beyond expectations, modified what might otherwise have proved to be a complete success. Moreover, the boxes warped considerably under the influence of strong sun-heat, so much so that after a year's experience the original method has been considerably modified, and greater success is now expected.

In the above instance I was only responsible for naming the most suitable plants, and my suggestions for covering the roof with soil could not be carried out in their entirety because the strength of the roof was a matter of doubt. The experience gained, however, was sufficient to prove unmistakably that quite a variety of plants could be grown in the way suggested; and in certain instances, and where the roof of an outhouse is open to view from a higher level, it is not merely a good but an interesting way of dealing with a difficult problem.

Just what plants may be introduced and be grown with success will depend upon a variety of circumstances, such as sun, shade or partial shade, and not a little, of course, on the character and strength of the roof. Strength of rafter is naturally an important matter, and with this ensured, the best class of roof is that composed of the ordinary red guttered tiles seen in many country places or those ever-enduring stone-tiled roofs so frequent on farmhouse, church or other buildings in Midland and other districts. This same style of roof often enough affords a good object-lesson for those interested in roof gardening, and the accumulation of moss and other vegetation on the northern side, and the usual absence of such things on the southern side, indicate where the work of establishing such plants could be most easily carried out. The sharply angled stone-tiled roofs over a lych-gate are often suggestive enough to the planter, and more than once when looking at the moss-covered roofs have I longed for a handful of Wallflower, Poppy, or Snapdragon seeds to start a colony of these things in such positions, and later, possibly, also to create wonder or give rise to speculation as to how such things came there. Indeed, I am not going to deny having done such things, and I look with interest on the now colonised subjects which, if dwarfer than usual, are certainly not without attraction. It is when we see such subjects as Arbor-vitæ, Yew, Gorse and other plants of a woody nature growing on the face of a dry brick wall that we are apt to enquire what may not be grown in positions a little more favoured than these. Where a roof is being constructed with some idea of subsequent planting it can be made of a sufficient strength; but where it is of long standing its strength must be first ascertained. If a choice can be made, the nearly flat roof would receive the greatest number of votes for many reasons which will be clear to all. Next in importance is the provision of a body of suitable soil, which may vary from 2 inches to 4 inches in thickness, and if composed of rather clayey loam with finely pulverised old mortar freely interspersed, the mixture will be found to suit many plants.

With such an assured depth of soil resting on a cool tiled bottom, many plants will be quite at home, and nothing more will be required beyond fixing a board at the sides to keep the soil in

position. In certain instances small pieces of sandstone could be introduced to fix the plants against, and this may be done the more freely in those instances where it is decided to confine the work to the planting of such subjects as Sempervivums, Sedums, the hardy Opuntias and similar plants. As these may indeed constitute a very delightful gathering, I give at once the names of the more conspicuous or worthy kinds. Of Sempervivums, S. tectorum, the roof Houseleek, is excellent, and in no way inferior are such as arachnoideum in variety, the very fine calcaratum and calcareum, triste, Regina Amaliæ and many more. The Cobweb Houseleek should be largely grown and, pricked out over a large area, will make a most effective mass. Such Sedums as albidum, glaucum, Ewersi and dasyphyllum should be seen among many sorts, while of Opuntias, O. humilis and O. rafinesquiana should be prominent. That fine hardy Mesembryanthemum, M. uncinatum, will delight in such a place, and will, moreover, show to advantage.

Then in a general way, not only those mentioned, but such as Aubrietias, Wallflowers, Snapdragons, Thrift (a capital plant alone), various species of Dianthus, such as fimbriata, deltoidea and others, and which make fine patches of flower, Corydalis lutea, a selection of the encrusted Saxifragas, Erinus in variety, Campanula fragilis, C. muralis, any of the silvery-leaved Achilleas, alpine and Iceland Poppies and, experimentally, such plants as Androsace lanuginosa, Onosma taurica and Thymus lanuginosa may be used. There is also the so-called roof Iris of Japan (I. tectorum), and with it might be associated others of the pumila section or their near allies. Where these Irises are grown a modified growth only could be looked for, and the same remark would apply to Sedum spectabile and to the Poppies and Wallflowers previously named. The idea of gardening in such out-of-the-way positions has for its aim a purpose of its own, and there is not the smallest reason why, with a little care and intelligence, its purpose may not be fully realised.

Hampton Hill. E. H. JENKINS.

PRIZES FOR READERS.

APRIL.

THE BEST PERENNIALS AND BIENNIALS FOR THE GARDEN AND HOW TO RAISE THEM FROM SEED.

A First Prize of FOUR GUINEAS,
A Second Prize of TWO GUINEAS,
A Third Prize of ONE GUINEA,
And a Fourth Prize of HALF-A-GUINEA
are offered for the best essays on the above subject.

Attention should be given to the time of sowing, best soil to use and other cultural details.

The notes (restricted to 1,500 words) must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, W.C." The essays must reach this office not later than Friday, April 30. Both amateur and professional gardeners may compete, but it is hoped that those who contribute regularly to the pages of THE GARDEN will not do so. The name and address of the competitor must be written upon the MS., and not upon a separate piece of paper. The Editor accepts no responsibility for and cannot undertake to return the MSS. of unsuccessful competitors. The Editor's decision is final

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

April 6.—Royal Horticultural Society's Exhibition of Flowers and Fruit, 1—6 p.m. Lecture at three o'clock on "Illustrations of the Effects of the Forces of Growth," by the Rev. Professor G. Henslow, V.M.H.

April 7 and 8.—Royal Caledonian Horticultural Society's Spring Show.

Swede Turnip greens.—In ancient days, when there was less demand from market dealers for all sorts of Turnip tops or greens, farmers allowed their poorer neighbours to enter their fields in the spring and gather both white Turnip and Swede Turnip tops. Now, what with the demand of market dealers and the more general practice of lifting roots in early winter and storing them in pits or clams, it is a rare circumstance that Swede greens are available to anyone; yet of all spring greens that the Brassica family produce, none is more delicious eating than are those gathered from Swede Turnips when they bolt off to flower in the spring. One wonders that gardeners do not grow a few dozen Swede bulbs and, storing them in a cool place during winter, plant them rather close together in a frame on gentle warmth in early spring. From such a planting they would get a wonderful lot of delicious, tender tops. Just now, because of the hard weather, we have such a winter-green famine, how very valuable for such purposes as is named a good quantity of stored Swede roots would be.—A. D.

Parsley trials.—Last summer a large trial of Parsleys was conducted in the Royal Horticultural Gardens, Wisley. It was specially noticeable that out of the large number of stocks grown, and they ran into scores, of ordinary garden Parsleys there were only about three distinct sorts. These were extra strong curled or market Parsley; medium but finely curled and robust garden Parsley; and the more fine-leaved form known as Fern or Moss-curled Parsley. Could these respective sections have been massed together, very little difference would have been found in either case. A fourth variety or section was the coarse Sheep's Parsley, one admirable for stock feeding, but of no garden value. When these Parsleys were last seen by the fruit and vegetable committee in the autumn it was agreed to advise that a report as to the hardiness of each stock be furnished this spring. Mr. Wright, the superintendent, so reported at a recent meeting, and said that not more than 5 per cent. of the whole breadth had been injured by frost. This was very satisfactory. At Welbeck Mr. Gibson had to experience the total destruction of outdoor Parsleys. Such is the difference seen in these localities.—A. D.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Eupatoire en arbre.—Adverting to your interesting note that appeared on page 86, the plant referred to, though we have not Mrs. Bardswell's note before us, is Eupatorium weinnemaniana, which is the superseded title for E. macranthum (large flowered)—not micranthum—which luxuriates here perennially immune to frost injury, and is of rapid growth and quite arborescent. It flowers continuously from mid-October or November till early in February. It is usually regarded as a greenhouse subject, but, as indicated, is perfectly happy in the open here at 500 feet elevation, two miles from the sea. —PENNICK AND CO., *Delgany Nurseries, County Wicklow.*

Double-flowered Cyclamen.—It may interest Mr. Humphreys, also "T. C.," to know that we had a double-flowered form of Cyclamen last spring. The colour was white, and the plant was isolated and seed saved; but, of course, I cannot say what percentage will come so again. The seeds were certainly of good size. It is rather interesting that doubling in the Cyclamen does not result (as is generally the case) from the stamens and stigma altering into petals, because both are normal, but extra petals are produced. The doubling seems to arise rather from an excess of vigour in the plant similar to the short branches some corms produce. Certainly the double flowers are of grand form and substance.—W. P. WOOD, *St. Peter's, Kent.*

Sowing Sweet Peas.—There is one point which I notice has not been touched on in any of the articles on Sweet Peas which have lately appeared in your paper, that is, the preparation of the seeds before sowing. The novice who buys a novelty and gets perhaps ten seeds for a shilling is often disappointed because so few of them germinate. This could be obviated if the seeds were chipped before sowing, just enough of the hard shell being removed with a sharp penknife to show the yellow seed within. John Ingman, Countess Spencer and The King should all be chipped, and it is a safe rule to chip all the black-seeded varieties. The lavenders, yellows and whites do not require it. I venture to suggest that the above hint may perhaps save a few novices from a disappointment which I have myself experienced.—C. E. K.

A white Clianthus.—I noticed in THE GARDEN of January 16 that you had received from Mr. S. W. Fitzherbert, South Devon, flowers of a white form of Clianthus puniceus. I think there must be some mistake, as I have never heard of a white-flowered kind of this plant. The variety is more likely to be Clianthus Dampieri alba, or, as it is sometimes called, the Dutch Flag, possibly from it colouring, white and red. I noticed in our greenhouse the other day that some of our plants of this had flowers well advanced and almost ready to open. I have much pleasure in sending you a photograph of this variety for comparison, also one of Clianthus Dampieri as grown here last summer.—J. MACHAR, *Fothringham, Forfar, N.B.* [There is a white form of Clianthus puniceus which was introduced ten or twelve years ago and is by this time well known. It has nothing to do with Clianthus Dampieri.—ED.]

Clubbing in Brassicas.—In writing on this subject in your issue for February 20, your correspondent "Anti Club" seems to be quite unaware of the real cause of the disease, which is a fungus and not white grubs, which are the larvæ of one of the weevils (Ceutorrhynchus sulcicollis). The attacks of this insect do not cause clubbing, but only the formation of rounded, knob-like excrescences on the roots, which are really galls, caused by the feeding of the grubs near the surface of the roots, and which can easily be cut or picked off. These galls cannot be mistaken for clubbing, club root, finger and toe, anbury, or by whatever name the disease goes by, the cause of which is one of the slime fungi, known as Plasmodiophora brassicæ. The spores, which are in the ground, enter the plant by one of the rootlets as little slimy masses, which gradually increase in size, filling up the cells of the root, and causing it to swell and become distorted. These slimy masses eventually become changed into an enormous number of round spores, which, when the infested parts of the roots begin to decay, are brought into contact with the soil, when they burst and a minute slimy mass is liberated, which has the power of moving over and through the soil. As the spores can remain in the soil alive for considerably more than a year, it is most necessary not to plant any cruciferous crop on ground tainted with this

pest for at least two years, and every care should be taken to prevent portions of the infected soil being carried from one part of the land to another on garden tools, boots, &c. All cruciferous weeds should be exterminated, and every morsel of a diseased crop burnt at once and not allowed to remain lying about on the soil. Quicklime at the rate of seventy-five bushels per acre is the best dressing. Artificial manures containing acids, sulphates, or phosphates should be avoided.—G. S. S.

—— Does not your correspondent "Anti Club" (page 87) misread Mr. Crook in the issue for January 30? As I read Mr. Crook's article, he refers to club root, while "Anti Club" certainly refers to the swellings caused by the gall weevil. These two things are quite distinct, although often classed together. One is caused by a fungus (Plasmodiophora brassicæ) and the other by the gall weevil (Ceutorrhynchus sulcicollis). Their very names are formidable. Mr. Massee in "Plant Diseases" recommends a dressing of quicklime—seventy-five bushels per acre. I have tried this (perhaps a slightly heavier dressing) on the seed-bed about a fortnight before the seeds were sown and the plants always came out clean, with no trace of disease, and, what is more, they remained free from the pest; but where we plant an extra row without liming they are diseased. It is generally held that disease can only attack the plant in a young state. We slake the lime on the ground and lightly point it in with a fork. These remarks are confirmed by what Mr. Crook says with reference to his neighbour having no disease now he limes his ground.—W. P. Wood, *Oaklands Court, St. Peter's, Kent.*

—— Much has been said from time to time respecting this troublesome pest. I find there is nothing to cure clubbing quicker or better than Veltha. I have used it freely and can speak from experience as to its results. A little should be sprinkled on the seed-bed before sowing and about a teaspoonful round each plant after planting, besides working a little into the soil when digging the quarter for planting. It is also one of the best fertilisers for Tomatoes. Of course, Veltha is a strong preparation and requires careful using.—J. S. Higgins, *Rûg Gardens.*

—— A generally mistaken idea seems to exist in the minds of many gardeners as to what club root, finger and toe, and anbury, as it is variously called, really is. Many cases of so-called club root which have come under the writer's notice have proved to be gall weevil (Ceutorrhynchus sulcicollis) an insect the grubs of which feed upon the soft part of the stem and roots, thus setting up the gall-like swellings which many mistake for club root. Club root is a fungoid disease (Plasmodiophora brassicæ) which attacks Cabbages, Turnips and allied plants, often proving very destructive. It belongs to the family of Myxomycetes, or slime fungi, and is so very minute that it can only be studied under a powerful microscope. It is fairly prevalent all over the country, especially in districts where the soil is deficient in lime. Clubbing commonly makes its appearance at an early period in the life of a plant, a slight swelling of the root and flagging foliage being the first signs of attack. Later in the season the roots assume a knotted, club-like appearance, which ultimately develop into a slime-like mass. If an affected plant be examined in its early stages the rootlets will be seen to be swollen with spindle-shaped swellings; it is this spindle-shaped swelling which is characteristic of club root, as distinguished from the abrupt tuberous swellings generally caused by insects. This disease, like many other forms of fungi, is very infectious, and is capable of existing in the soil for several years in a resting state. As already stated, it is nearly always present in soils deficient in lime. Bearing this fact in mind, one naturally arrives at the conclusion—a correct one—that a dressing of lime is the best remedy. This can be applied either in the form of gas lime, where the disease is bad, at the rate of 16lb. to the square rod (30¼ square yards), or slaked lime, 20lb. to the square rod, to be applied during the winter. The importance of lime in the soil, not only as a remedy for club root but for the benefit of crops generally, cannot be over-estimated. Of the many cases of club root with which the writer has had to deal, the soil upon examination has, almost without exception, proved to be deficient in lime. The greatest care should be exercised to remove every vestige of refuse from the land after the crop has been taken off. This should be burnt. Do not, under any circumstances, wheel it on to the rubbish-heap, that dreaded "nursing home" for all forms of plant diseases and insect pests. It is very good practice when planting Cabbages to dip the roots into a mixture of soot, clay and lime, with sufficient water to make it into puddle. Weeds, especially Charlock, must be rigorously kept down, as it is in such plants that the fungus lives when the ground is not under a cruciferous crop. It is advisable to avoid growing a crop of either Cabbages or Turnips for at least two seasons on ground which has become affected. Gall weevil can readily be recognised if one of the swellings be cut open. It will be found to contain a whitish grub. An application of lime as recommended for club root will give very good results if applied after the crop has been taken off; also dipping the roots in the same mixture will act as a preventive. Paraffin sprinkled on sand and then scattered over the seed-bed will prevent the insect laying eggs on the seedling stems.—C. C.

Gladiolus gandavensis.—I regret very much that in my article of March 20 on the above I did not include among the British workers in this field the firm of Messrs. J. Burrell and Co of Cambridge. For over twenty years they have annually raised, except in one or two exceptional seasons, a large number of seedlings. Their particular aim has been to produce varieties that will open long spikes of bloom at one time, while the size and substance of the individual flowers have not been forgotten. Owing to the shyness of so many of the best varieties in producing "spawn," Messrs. Burrell have been led, like Mr. Groff in Canada, to rather concentrate their efforts on producing mixed seedlings of good enough quality for garden and even exhibition purposes. —Joseph Jacob.

When to plant fruit trees. — My answer to this question is during October and November whenever possible, or even earlier when dealing with Peaches or Nectarines, which I should prefer to plant during the last week in September. Fruit trees may be planted any time from September to April with successful results on well-drained soils; but I do not agree with planting at midwinter only in exceptional cases and on warm soils, and even then a mulch of rather strawy manure should be placed over the roots for protection. Planters of fruit trees should note the advice given by "Fruit-grower" (page 91), especially the last two lines, where he says, referring to the work of planting, "in no circumstances must the work be scamped—do it well if the finest results are desired." This strikes at the root of the matter, for it is impossible to do the work well if the ground is not well prepared and the soil is in a wet or boggy condition. Fruit trees with a quantity of fibrous roots may be planted late in March with good results, especially Apples. Several seasons since I planted some fine bush trees of Grange's Pearmain Apple on the last day in March and the trees carried two or three fine fruits the first season. These trees were in splendid condition for removal, having clean growth and a mass of fibrous roots, the result of careful preparation at the nursery from whence they were procured. Secure good trees, prepare the soil thoroughly and plant during autumn—or spring if the work cannot be completed at that time.—C. Rose.

THE FRUIT GARDEN.

HOW TO GROW FRUIT TREES IN POTS.

(Continued from page 154.)

WE find occasionally, when potting the earliest trees, that the foliage will droop afterwards when the weather is fine, warm and sunny. This we do not mind, but we do not like to see any of the wood shrivel. To remedy this the trees are syringed daily once or twice, and oftener if the weather is very warm or sunny. We used to stand the trees when first repotted outside again upon boards or bricks, in order to keep them free from worms and to avoid any excess of moisture. Finding the second move into the houses a few weeks later to occasion rather too much additional labour, we altered this procedure, and now instead the trees are stood as close together as they can be arranged in one of the larger houses. Here they remain until the earliest are wanted by the end of November to place into the house that is first to be started. I do not wish to imply that it is unsafe to stand them out of doors, but it answers our purpose not to do so. The foregoing remarks have reference to the stock of trees that are forced. Those that are not forced can be placed close together in an open position, guarding against worms, as already mentioned, or by the use of a good layer of ashes under the pots. Later on, and before sharp frosts occur, the pots should be protected either by a covering of long stable litter worked in between them, and upon the tops also, as a protection against frost. Another plan, and one which we now adopt, is to stand them close together in a house that is absolutely cold. Here they can be plunged in ashes over the rims, and in such a position there is no danger from depredations by birds feeding upon the buds when netting is used to keep them out. When left out of doors the trees should certainly be netted until the spring, when the blossoms are on the point of opening; then room should be found for them in a cold house as a safeguard against frost.

Potting.

The question has frequently been asked, Do we pot the trees every year? The answer is, Yes, we do. This reply has often created some surprise, and by some, who have not had many years' experience, it has been deemed unnecessary labour; but it is not so. Occasionally we let a few trees stand over; these are mostly those that for some reason have not borne an average crop of fruit. Every tree is taken out of its pot, carefully of course, then the ball of soil reduced all over, so much so that we can replace it in the same size pot again. The exception to this rule is when a tree has prospered unusually well, then a pot one size larger is provided for it. The ball is reduced sufficiently to allow for fresh soil all around it, a good guide being that of enough room for the open hands to pass freely down between the pot and the ball. In this way it is possible for the fresh soil to be rammed down firmly, this being a most important item of procedure. I believe that in this annual shaking out and repotting lies one of the chief essentials to success. When turning out a plant with the ball, as it were, a solid mass of roots, it does not, on the face of it, seem the best course to pursue. The roots are healthy and vigorous; it would therefore appear that the better plan to adopt would be to repot into a larger size without disturbing the roots to any extent. This, however, is very far from being the best course to adopt in the case of these fruit trees. The reducing of the ball causes a multiplicity of fine fibrous roots to be made, and that further back upon the roots of larger size than would otherwise be the case; whereas, if not so treated, the roots would be too luxuriant the next

season, and this would have its corresponding action in the branches. This is brought about by a greater supply of water being required when the majority of the feeding roots are next to the pot itself.

Another reason why the annual potting is so essential arises from the fact of the soil added the previous year being to a great extent exhausted and non-productive of fruit-buds; and although the roots in the autumn are vigorous and healthy, like the tree itself, yet if not so treated they would be, before the end of another season, in an absolute state of poverty. Thus the tree would be left in a poor condition for the year following, *i.e.*, the third year from potting, with the prospect of failure in store. When such a tree is eventually potted the roots that have to be removed are far and away greater than if potted every year. I am aware that it may be said "Use manurial stimulants," but when such are applied with the soil in a poor state to receive them, the benefits that should accrue are much less. JAMES HUDSON, V.M.H.

(To be continued.)

FRUIT NOTES.

PRUNING NEWLY PLANTED TREES.—It is clearly understood by cultivators of experience that if one is to secure the most profitable returns from fruit trees over the longest possible period it is absolutely necessary to form the foundation of the tree on a sound basis before it is allowed to carry a crop. Unfortunately, with many amateurs the idea prevails that directly a tree is in it should fruit, and in encouraging this they so stunt the growth of the tree that it is practically impossible to restore it to a satisfactory condition again for several years; indeed, in the majority of instances the best thing to do with a tree that has been thus incorrectly treated is to take it up and burn it forthwith. The desire for fruit is natural, but it should never be allowed to go as far as to prejudice the prospects of a protracted and profitable life. Ensure perfect establishment and a sound rooting system; then crop.

During recent years there have been innumerable discussions as to whether a fruit tree should be planted immediately it is placed in its permanent position or whether the operation should be deferred for a season. If one could be sure that the cutting back at the end of the first year would be properly carried out, one would not materially object to this lapse of time; but the chances are in favour of the grower not being able to find it in his heart to cut right back, with the consequence that the lower portions of the shoots will be devoid of buds and the tree will never be fully satisfactory. In all circumstances save one, to which special allusion will be made, it may fairly be regarded as sound practice to cut in the same season and never to be sparing in the use of the knife at this stage.

It may be safely assumed that the vast majority of trees are planted in the autumn, and if the pruning back of these is left until the upper buds have started in the spring, well and good; but a three year old tree should always have its shoots reduced by at least two-thirds of their length either in the autumn of planting or the spring immediately succeeding. When the operations are carried out in the spring, the desirability or otherwise of cutting back at once is governed largely by local conditions. If the work can be completed by the end of February and the soil is deep and good, then it is permissible to prune after the buds on the extremities of the growths have started, as this may be taken as a clear indication that the rooting system is in a sound working state and that abundance of food will be taken up. On the other hand, if the soil is shallow and poor and it is impossible to deeply cultivate and enrich it, then the wisdom of immediate cutting is extremely doubtful; as a matter of fact, when these conditions prevail and pruning is done at once the buds start very tardily, and the shoots which result are commonly weak and poor.

The case, then, practically resolves itself into one in which each planter must exercise his individual judgment according to the local conditions. He should, first of all, most carefully consider the nature of the soil and then the time of the year at which the planting was done, and settle the matter for himself; but there should be no deviation from the rule of hard cutting back in such a manner that the foundation shall be established before the trees are allowed to carry a crop of fruit. If Apples and Pears were plants that ran themselves out in a year or two, the matter would be very different; but as they are plants which grow steadily into a profitable state, the results will be the more satisfactory from the outset onwards if the rule is adhered to that two-thirds of the young shoots shall be removed either in the season of planting or the one immediately following upon it. FRUIT-GROWER.

WELL-FLOWERED SPRAYS OF ROSA WICHURAIANA ALBA GROWN IN THE GARDENS OF SIR WALTER SMYTHE, BART., ACTON BARNETT, SHREWSBURY.

THE ROSE GARDEN.

ROSE CHATEAU DE CLOS VOUGEOT.

ALTHOUGH M. Pernet-Ducher cannot be complimented upon choosing such a ponderous name for one of his productions, I imagine growers will overlook this and give the variety a warm welcome, for it supplies yet another to the steadily increasing number of dark-coloured Hybrid Teas. There is something about the Rose, probably its quaint form, that suggests Princesse de Sagan to one's mind; but it is a far more superb bloom, and although there is not so much scarlet in its colouring, there is the rich velvety crimson shading which all will welcome. The bloom has some small resemblance to Etoile de France, minus its faults, and I should venture a guess that it is an offspring of that variety, for it seeds freely. I have used it both as seed and pollen parent with excellent results.

The blooms of the Rose under notice are quite large in size, expansive and irregularly formed, and produced singly; but its dwarf, spreading habit will make it a useful bedding Rose. Really it may be termed a glorified massing Rose, for what it lacks in numbers it compensates for in its gorgeous colour and huge blooms. Roses of this type will soon displace such sorts as Marquise de Salisbury, which are extremely disappointing if one wishes to cut them. If we can have our bedding and massing Roses yielding blooms of quality, this will be most welcome to those who have but small gardens as well as to those who grow on a larger scale.

I find on moving about that the general public are becoming somewhat tired of Rambler Roses, as they are for the small-flowered massing Roses. I am often asked to name Roses for rambling having blooms of quality, and the same as regards bedding Roses, so that I can thoroughly recommend the Rose under notice as being a most worthy addition to our garden Roses, and as it is sweetly fragrant and wonderfully free blooming it should receive a hearty welcome. P.

ROSA WICHURAIANA ALBA.

THIS Rose is probably seen to best advantage when grown as a 5-feet standard, and if given a favourable position forms very shapely heads with little attention in the way of training. The miniature dark, glossy foliage is practically evergreen, and when in bloom this variety has a very pleasing effect and is well worth possessing. J. L.

ROSE W. E. LIPPIATT.

EXHIBITORS will find in this fine production of Messrs. A. Dickson and Sons a Rose that will probably surpass Earl of Dufferin in its staying powers. We all know what a splendid Rose this latter is in certain seasons; but it is not constant and its growths are too drooping for it to make an interesting bush. To grow it successfully one must either tie its growths to sticks, as is often necessary with heavy Roses like Marie Baumann, or use it as a pillar or standard Rose. In W. E. Lippiatt, however, we have a variety whose growth is more erect, and thus likely to be far more useful. The flowers are very full, of fine form, pointed and of large size, making a fine back-row flower. The colour is a rich velvety crimson, shaded maroon. One remarkable feature of the Rose is its powerful fragrance, so much so that some think it should be classed with the Hybrid Perpetuals. It seems absurd to group such a Rose as this, Kaiserin Augusta Victoria and Joseph Hill under one group and call them Hybrid Teas. When planting this variety it will be advisable to place it well in the background, or centre if the bed faces both ways, so that its strong growth does not mar others in the same bed. P.

THE GREENHOUSE.

ORCHIDS FOR AMATEURS.

Calanthes.

THIS family contains both evergreen and deciduous species, and it is the latter group which I intend to write upon in the present article. There are several sections of the Orchid world that can be successfully grown with other subjects, and Calanthes may be cited as examples, for in a Melon pit or a light position in the plant stove they thrive equally as well as if given a separate division or placed among the Dendrobiums. About the end of March the annual repotting should be taken in hand; but a fortnight or so previous it is advisable to mix the soil and place it in a warm house to prevent the roots being chilled. The soil is made up as follows: One-half good fibrous loam, one-fourth lumpy peat and one-fourth partly decayed Oak leaves, with a sprinkling of chopped sphagnum moss and a small quantity of crushed crocks or charcoal to keep the whole in a sweet and porous condition.

Ordinary flower-pots prove the most suitable receptacles, and these are filled one-fourth of their depth with drainage. They will, of course, vary in size according to the quality of the bulbs; but a bulb 7 inches or 8 inches in length would be sufficient for a pot 6 inches in diameter, and so on in proportion. If large specimens are desired, then fairly deep pans (without side holes) may be used, arranging three or four bulbs in each. The vestita group is particularly adapted to this mode of cultivation, because when in flower the stems have a tendency to droop, and where they can be suspended a pleasing effect is produced. Before commencing to repot it is best to examine each bulb and select those with the new growth 3 inches or 4 inches in length and roots just appearing at the base. Where a quantity is grown, only a certain number will be ready; therefore the remainder should wait another week or ten days. When the operation is finished, the soil ought to be 2 inches below the rim; this permits of a little fresh loam being added later in the season, when root action is more vigorous.

Treatment after Repotting.—The plants should be arranged near the glass in the warmest division, or in the houses noted above, with a minimum temperature of 65° Fahr., rising 5° or 10° by midday, and watered sparingly for several weeks; but the surroundings must be kept moist by damping the floors and syringing between the pots occasionally. As the roots permeate the soil, so is the water supply gradually increased, and directly the new bulb is formed they must never suffer from drought. Only sufficient shade is required to keep the foliage from scorching, and as the bulbs approach maturity it can be entirely dispensed with. A sweet, buoyant atmosphere is essential throughout the growing period, and to assist in this direction a little top air should be given whenever the elements warrant the ventilators being opened, while the bottom ones can always be open an inch or so excepting during high winds and frosts. As the bulbs near completion and the leaves begin to decay, the amount of moisture, both in the atmosphere and at the root, is decreased, but not entirely withheld till after the flower-spikes are cut. When the latter are removed the bulbs may be either stored on a shelf in their pots, or, should space be limited, the old soil carefully taken away and the bulbs set in boxes with a little silver sand around the base and kept on the dry side till signs of life are again apparent; while resting a temperature of 50° to 55° is sufficient. It is sometimes suggested that a cooler temperature be provided during the flowering season; a few degrees lower, if the house is dry, will do no harm, and the sprays last longer in perfection, but they must not be exposed to cold draughts, or next season's growth will suffer in consequence.

Selection of Varieties.—Calanthes may be had in flower from November to February, or even March, by including the beautiful C. Regnieri. Among the species we have C. vestita, with its varieties luteo-oculata and rubro-oculata, and rosea. The most popular is undoubtedly C. Veitchii. Others are the almost pure white Harrisii and gigas.

Sentinel.

CHRYSANTHEMUM RONALD FERGUSON IN THE GREENHOUSE AT KEW.

CHRYSANTHEMUM RONALD FERGUSON.

The amateur gardener with probably his one little greenhouse usually associates the word Chrysanthemum with a large, unwieldy plant quite unsuited to his small house. By rooting the cuttings much later in the year, however, it is possible to obtain sturdy plants 2 feet to 3 feet in height, in 6-inch (32 size) pots, such as the one shown in the illustration. The cutting from which this plant was grown was inserted early in April. At this season cuttings root readily under a hand-light or garden frame, provided no air is admitted for about three weeks. When rooted, pot the cuttings off singly in 3½-inch (60 size) pots, returning them to the frame for a few days till rooted in the new soil, after which air may be gradually admitted and the plants eventually placed outside. When about 4 inches high remove the points of the shoots; this will cause each plant to make three or four growths. As soon as the new shoots are 2 inches in length, place the plants in the pots in which they are to flower, which in this case are 6 inches in diameter.

During the summer stand the plants in an open position, allowing plenty of space between each one, as short, mature growth is necessary to obtain flowering plants similar to the one illustrated. We find it advisable to half plunge the pots in ashes, or in summer it is almost endless work watering them. Being in small pots, the plants require liberal supplies of liquid manure.

In addition to the value of such plants for small greenhouses and the side stages of larger structures, they will be found very valuable for room decoration, lasting for a long time in good condition. It is, of course, better to select naturally dwarf-growing varieties for this method of cultivation. Our collection includes the following sorts: Sœur Melanie, white, October-flowering Pompon; Ryecroft Glory, rich yellow, October; Market Red, October; and Soleil d'Octobre, straw yellow, October. Midseason varieties: Ladysmith, single, pink; Ronald Ferguson (illustrated) single, blush white; Charles Davis, bronze; Phœbus, yellow; Mme. R. Oberthur, white; Nellie Pockett, white; Niveus, white; Tokio, deep red; and Viviand Morel, deep mauve.

Kew. A. Osborn.

ACACIAS AND THEIR CULTURE.

The Australian Acacias, or Wattles, as they are popularly called, form a valuable group of plants for greenhouse decoration during winter and spring, while for mild districts in the South and South-west Counties they are excellent for outdoor culture. When grown for the conservatory or greenhouse they are usually placed in pots or tubs; but where space can be afforded in winter gardens and similar structures they are first-rate subjects for planting in borders. Planted in this manner they grow rapidly into large bushes and blossom profusely. One objection may be raised to planting Acacias in borders, for in the event of a specimen getting too large for its position it cannot be successfully transplanted without going to a great amount of trouble, for few shrubs or trees are more difficult to establish after serious root disturbance. By an annual pruning from the earliest years of a plant's life, however, it may be kept within bounds with little difficulty,

while the selection of varieties of moderate growth is a point to consider. Although Acacias will stand a very severe annual pruning, providing a few buds on each shoot of the previous year's wood is left, it is unwise to cut them back into old wood, for it rarely breaks away again satisfactorily.

The majority of the sorts grown in commercial establishments are increased by cuttings. These may be made from young shoots 3 inches to 4 inches long during summer. They should be taken when the wood is about half ripe and inserted in well-drained pots filled with soil composed of two parts peat, one part loam and one part sand. The soil must be made firm and the cuttings should be well firmed into the soil. When inserted, stand in a moderately warm propagating case and shade from bright sun until roots are formed. The young plants should be potted singly and firmly in soil similar to that recommended for cuttings, except that only half the quantity of sand will be required. Stand close to the glass and keep the young shoots well stopped for a year or two until a good foundation has been laid. When large enough to be allowed to bloom, stopping should cease early in May, so that long growths may be formed which will bloom throughout the whole of their length. For large plants equal parts of peat and loam may be used, with a little sand and a handful of crushed bones placed over the crocks. It is a great mistake to overpot plants, and it will be found very much better to feed with manure water during summer than to give too large pots.

Plants of flowering size may be plunged out of doors in full sun for the summer. During this period soot water once a week may be given with advantage. They should be taken indoors in September and be placed in a cool and airy greenhouse, taking care to damp the floor and stages frequently. Some sorts may be had in bloom in December, and a succession can be obtained until the end of May. All pruning ought to be done as soon as the flowers fall, so that as long a growing season as possible can be had.

Although upwards of 100 species are known, a dozen or so can be selected as being well in advance of the majority for ordinary purposes, and the sorts mentioned in the following notes may be depended on to give a good account of themselves. An illustration is given of A. dealbata, a tree commonly called the Silver Wattle, by reason of its pretty silvery foliage. It is a most floriferous plant when allowed free growth, its little fluffy, yellow balls of flowers being borne in countless numbers. It does remarkably well when planted out, but is not a very good pot plant. It is the so-called Mimosa of commerce. A popular plant for pots is A. Drummondii. This under border culture rarely grows more than 4 feet or 5 feet in height, and when grown in a 5-inch or 6-inch pot it attains a height of from 1½ feet to 2 feet by 9 inches to 1 foot in diameter. Its yellow flowers are borne profusely. It thrives better in peat and sand than in soil containing a lot of loam.

A. armata is also a useful and popular plant, while its variety angustifolia is of peculiarly graceful outline. A. riceana and A. leprosa are a pair of elegant shrubs suitable for planting against a tall pillar or for pot culture. The long, wand-like branches are very graceful and bear flowers throughout their whole length. A. cultriformis is well known by reason of its lovely glaucous leaves and rich golden flowers, while A. verticillata is a free-flowering plant of great value for either pot or border work. In addition to these the following sorts are worth attention: A. baileyana, A. hastulata, A. juniperina, A. longifolia floribunda, A. myrtifolia, A. platyptera and A. verniciflua. All are free flowering, and in each case the blossoms are one or other shade of yellow. As Acacias give comparatively little trouble, they are excellent subjects to use for the conservatory in companionship with forced bulbs and shrubs during winter and spring.

K. D.

A WELL-FLOWERED BRANCH OF THE SILVER WATTLE (ACACIA DEALBATA).

THE SMALL GREENHOUSE.

(*Continued from page 140.*)

WIDTH OF HOUSE.—This is an item never to be guided by circumstances, but even so there is a sense of degree of proportion which should not be wholly disregarded. A house 30 feet in width, for example, may be excellent where the ground floor is employed for such a crop as Tomatoes planted out, to be followed by Chrysanthemums for autumn and winter. Generally, however, the loss of space would be considerable for not a few other crops, and particularly pot plants of more lowly stature. In such a case much airspace would have to be heated over and above that required, and so on. A good width of house is that of 20 feet, and by arranging side beds 3½ feet wide, and two pathways at 2½ feet wide each, some 7 feet would remain for a central bed, the half of which is easily reached from either pathway. The outside walls of 4½ inches, with occasional 9-inch piers, would roughly take up the space. A 10 feet wide house with a central pathway is valuable where pot plants are grown in winter, and with a portable stage Tomatoes may follow in summer. These narrow houses, when arranged with sharply pitched roofs, are best for Cucumber-growing in summer.

Heating.—A house 30 feet in width would require at least eight rows of 4-inch piping to warm it; that 20 feet wide, six rows; and a 10 feet wide house, four rows of 4-inch pipes. If Gardenias or Eucharis were grown, a considerable increase in the amount of piping would be an absolute necessity. The heating apparatus must be well above its work—that is to say, if 300 feet of piping existed to be heated, a boiler catalogued or specified to do 500 feet of piping should be selected, and so on in proportion. Where a boiler is taxed to its fullest scheduled power of heating in ordinary weather, a great strain is obviously placed upon it when severe weather is experienced, and two or three months' hard firing will cost as much as a new boiler; when this is repeated year after year the result is a great bill for fuel, a large amount of heat from which passes out at the chimney. It is economy, therefore, to have either one boiler as suggested, with some reserve of power, or two of smaller size for the same thing, the one being in reserve in case of a breakdown. Cast-iron boilers should always be selected for damp stokeholes and for low-lying districts. One of the oldest types of boiler, the Saddle, is as valuable as any to-day, and for small greenhouses the terminal end-flued Saddle has much to commend it. There are several boilers of the type known as "independents," and these are made in sections, either large or small. The chief claims of these are economy in fuel consumption and slow combustion.

Fuel and Stoking.—Only two classes of fuel call for notice here, viz., coke and coal. Ordinary house coal is not good, and the only coal worthy of consideration by reason of its great heating power, reliability and endurance is anthracite. In the case of coke, when used for small boilers it is necessary to break it to about the size of a tennis ball. The coal may be broken to about the size of a Cocoanut, and a fire made of this is good for a dozen or fifteen hours without any attention. For quite small boilers the anthracite cobbles may be used, A most important point with this coal is that, once the fire is made, it must be allowed to burn untouched. The amount of fuel must be regulated by the weather, and the slowness or quickness of the fire by the damper. Small broken house coal of a good kind when mixed with finely broken coke and clean-washed cinders will make a sharp fire in case of such being wanted.

Hampton Hill. E. H. JENKINS.

(*To be continued.*)

THE FLOWER GARDEN.

BEAUTIFUL GARDENS AT SMALL COST.

THE flower-lover who does not possess large means to spend upon his hobby need not despair; there are many ways of making a whole garden exceedingly beautiful at small cost, and though the work will necessarily take time, spring is the right season to begin, and the coming summer and autumn will witness a portion of the glory.

Climbers are essential, either for house walls, fences, trellises, summer-houses or arches, perhaps for all, and if some are trained up a trio of hop-poles placed in a triangular shape 6 inches apart and latticed between with string, handsome tall ornaments will be gained to give height in the bed centres and borders. As a rule, the new or the neglected garden is deficient in high objects of beauty, so this method is worth remembering.

Seeds of the annual Hop (Humulus japonicus variegatus) should be sown singly in small pots in a frame or glass-covered box placed in sunshine, and if a hot-bed can be made up under the pots germination will be swift. For wall or arbour covering this is a fine climber, giving a bright appearance until winter. It is suitable for clothing trellises to form a screen, also for rambling over the porch, and seed is obtainable, as most seeds are indeed now, very cheaply.

Cobæa scandens, raised in the same fashion, will grow so rapidly that the fine Ash-like foliage will make a splendid covering for a wall, fence or summer-house in a sunny position, and the yield of purple bell-flowers will be profuse before frost checks it. To carpet the borders beneath Cobæa scandens with Eschscholtzia crocea fl.-pl., E. Mandarin and E. alba is a cheap method of gaining the magnificent harmony of purple, crimson, orange, yellow and cream. A sowing of seed on a day in April, when the ground has been moistened, will be a sure way of succeeding; but the seedlings should be thinned out until they stand 9 inches apart.

Climbing variegated Nasturtiums have a refined appearance and offer no difficulties of culture; the seed germinates faster if soaked in tepid water for twelve hours before it is sown. A large bank can have its summit sown in the same way, for Nasturtiums flower as well when trailing down a slope as when allowed to climb, and the colour display will be brilliant for many months. These Nasturtiums, or, indeed, any of the class, look charming when grown against a length of trellis or painted wire netting upon the hottest house wall, giving a far better effect if trained out thus than when overcrowded and allowed only strings to mount by. Convolvuluses are equally suitable. In addition to the ordinary type, catalogued sometimes as Ipomœa purpurea, but generally as Convolvulus major, there is the Ivy-leaved strain, equally sure to flourish in a warm position, equally varied in colour and possessed of extra attractive foliage.

If there are no shrubs, it will be necessary to grow some tall, imposing plants for positions in the front and back gardens. Seeds should be at once sown in the frame (on a hot-bed if possible) of Rhus typhinus or Sumach, which hardy shrub grows ultimately 8 feet or more high, has giant cut-out foliage that is crimson-tinted in the autumn, and has plumes of quaint reddish blossoms.

Other seeds to sow for permanent beauty include Delphinium, Hollyhock, perennial Sunflowers and Rudbeckias, the Chimney Campanula, Tree Lupines, Ferula gigantea (the Giant Fennel) and the very handsome red-fruited Rheum Moorcroftianum, which is said to be as easy to cultivate as the ordinary Rhubarb.

For the present summer's show the Giant Hemp ought to be sown, to take places where shrubs may be planted next winter, to form specimens on lawns or shut out ugly views. Cannabis gigantea is a 12 feet hardy annual with grand leaves, and seed germinates readily with bottom-heat. Giant Sunflowers can be used in variety for other spots, and the 4 feet tall Maize (Zea May's quadricolor), Sweet Pea clumps, double Poppies and the purple-blooming Tobacco (Nicotiana macrophylla gigantea) will prove useful.

Beds of annuals may be as fair as any. The Eschscholtzias of carmine and rose, as well as those mentioned, are admirable. Mixed Salpiglossis cannot be rivalled. Blue Cornflowers, with white Candytuft, Nemesia strumosa Suttonii, banded round by cream, orange and crimson Tom Thumb Nasturtiums, Godetia Lady Satin Rose, combined with cream white Chrysanthemum coronarium and edged with Sweet Alyssum are but a few of the possible attractions. Perennial borders take time to grow from seed, yet some of the seedlings will blossom the first year, such as Snapdragons, Iceland Poppies, Pansies, double Daisies, Michaelmas Daisies, Aquilegia chrysantha, Geum atrosanguineum fl.-pl., yellow Mimulus and Meconopsis cambrica (the yellow Welsh Poppy). There are all kinds of Pinks, Carnations, Auriculas, Polyanthuses, Primroses, Oriental Poppies and Centaureas to be raised; also Lupinus polyphyllus in several colours, Achilleas, hybrid Pyrethrums and Sweet Williams for profuse blooming next year. Gradually the seedlings will result in a perfectly filled garden.

E. J. Dunham.

THE LARGE-FLOWERED WOOD LILY (TRILLIUM GRANDIFLORUM) IN THE ROCK GARDEN AT KEW.

ONE OF THE WOOD LILIES.

(Trillium grandiflorum.)

The Wood Lilies are a family of beautiful shade-loving plants, all natives of North America. It is but seldom that they are seen growing with anything like an approach to healthy vigour, yet their requirements are comparatively simple. No more delightful sight can be imagined than healthy groups of the sort shown in the illustration (T. grandiflorum). Under favourable conditions, in shady portions of the rock garden or Fern border, with a rich rooting medium, consisting of peaty soil with an abundance of leaf-soil, this plant will attain a height of over 2 feet, with flowers of dazzling whiteness 3 inches to 4 inches across. These are produced singly from the whorl of three leaves, and are borne on erect or drooping stalks.

There is also a lovely form of T. grandiflorum with flowers which open a delicate blush rose, and gradually deepen in colour with age. The variety maximum has flowers from 4 inches to 5 inches across. This grand-flowered Wood Lily is an excellent plant for naturalising in cool shady woodlands, where there is plenty of moisture. It may be obtained cheaply in quantity, and should be planted in autumn in rich, leafy soil that has been deeply dug. In addition to the above plant, there are several others in this family well worth growing. T. erectum (Birth Root) has flowers of a dark reddish purple and is very distinct, and there is also a variety with white flowers. T. erythrocarpum (Painted Wood Lily) is a very pretty flower, pure white, blotched at the base with crimson-purple. One of the earliest-blooming species is T. nivale, with white flowers. T. sessile has whorls of variegated leaves and deep purple flowers, sessile on the leaves. The variety californicum, or album, is one of the best, with large, pure white flowers. T. stylosum is one of the last in flower, with flowers of varying shades of rose pink.

W. I.

GYPSOPHILA ACUTIFOLIA.

Among the plants which have again been brought forward after years of neglect is one of the Chalk Plants, which is deserving of consideration. This is Gypsophila acutifolia, a Siberian species, introduced first in 1820, but apparently forgotten for some years, seeing that it is not described in the "Dictionary of Gardening" of the late Mr. George Nicholson, although it is referred to by Loudon in his "Encyclopædia of Plants." Now it is being classed among the novelties, and such it will prove to many who appreciate the ever-popular G. paniculata. G. acutifolia is, however, a very different plant, having larger flowers in large panicles. The individual blooms are about three times the size of those of G. paniculata and are more of a silvery than a pure white. The plant itself is considerably taller, and, although not so cloud-like when in flower as G. paniculata, is a graceful and pleasing subject for the flower border.

S. Arnott.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

THE LAWN.—At this season the lawn will need attention if it is to be in good condition for the summer. As growth is backward this spring, mowing will not yet be called for, but the machine should be overhauled, the knives ground if necessary, and all bearings thoroughly cleaned and oiled in readiness for a start. It is unwise to cut very close

1.—A LAVENDER PLANT SUITABLE FOR DIVIDING.

the first time or two; set the blade so that it is at least 1 inch from the surface of the soil. Previous to mowing (and the following work should be done now) the lawn must be thoroughly weeded, removing all Daisies, Plantains and other spreading weeds, or, if preferred, Lawn Sand may be used, taking care that it is applied strictly according to the directions. Then give the grass a thorough sweeping and rolling, doing the latter when the soil is not sodden or frozen. Where thin, bare and mossy places occur, these may be scratched over deeply with an iron-toothed rake and some grass seeds scattered in and lightly covered with fine soil, finally rolling the whole down firmly.

Flower Garden.—Providing the weather has been warm for a few days and the soil is comparatively dry, the sowing of many hardy annuals may be undertaken; but if the weather conditions are unfavourable, defer the work for a week or two. A great many of these charming flowers, such as Poppies, Mignonette, scarlet Flax and Night-scented Stock, are best sown where they are intended to flower, and, consequently, the soil must be deeply dug and well prepared previous to sowing. In all cases the two essential points to observe are to sow thinly and thin early. By far the majority of annuals are ruined by too thick sowing and the subsequent neglect as regards thinning. Sweet-scented kinds, such as Mignonette and the little Night-scented Stock, should be freely sown in close proximity to the house, where their fragrance will be most welcome during the summer evenings.

Vegetable Garden.—A sowing of a good Cabbage may now be made in the open, scattering the seeds thinly and evenly in the drills. A new variety that I grew last year was Webb's Leader, a beautiful, conical-shaped Cabbage that comes ready for cutting in an incredibly short time. It is of splendid flavour, and may be regarded as one of the best Cabbages we have for spring sowing. The plants when large enough should be planted out in rows 2 feet apart, allowing a distance of 15 inches between the plants. Stir the soil freely between all growing crops, such as Broad Beans, Spring Cabbages, Globe Artichokes, &c., and generally prepare plots for sowing on all favourable occasions. Salsify and Scorzonera are two vegetables that deserve to be grown by amateurs more extensively than they are at present. Both form long, Parsnip-like roots, and both therefore require a deeply worked soil. Sow now in rows 14 inches apart and about 2 inches deep, thinning the seedlings when they appear to 6 inches apart.

Fruit Garden.—The present is a good time to apply long, strawy manure to Strawberry beds. A certain amount of food will be washed from this into the soil just at the time the plants are flowering and when they need a stimulant, and by the time the fruit ripens the straw will be quite clean and form a suitable preventive against the fruits being splashed with soil. All weeds and dead leaves should be removed before applying the manure, and where slugs are troublesome dust the soil well with soot. Put the manure on 6 inches thick, shaking it to pieces well in the process, and take care that no lumps find their way to the hearts of the plants.

Greenhouse and Frames.—All bedding plants that have been kept in the greenhouse for the winter should soon go to the cold frames, as it is absolutely essential that they be perfectly hardened off before planting out. Give them as much space as possible, and after they have been in their new quarters for a few days ventilate freely whenever possible. Calceolarias and Pentstemons in cold frames may now have the lights entirely removed on all fine days. Young Fuchsia plants that were rooted last autumn will now be growing freely, and in most instances it will be necessary to pinch out the tops of the main shoots, and thus induce a bushy habit. When the pots are full of roots the plants will need moving into others of larger size, using soil composed of good turfy loam two parts, well-decayed manure and sand half a part each, with a few knobs of charcoal added. Do not on any account pinch out the tops and do the repotting within a week of each other, else a double check will be given the plant, much to its disadvantage. H.

HOW TO INCREASE LAVENDER.

WE doubt whether there is any more popular fragrant shrub than the ever-welcome Lavender. In these notes we are alluding more especially to the common Lavender, known to botanists as Lavandula vera. An open, sunny situation is undoubtedly the better position in which to plant, and, if the soil in such a locality is light and warm, Lavender may most certainly be planted with the sure prospect of success. In such circumstances we have heard of a hedge some 30 yards or more long and about 3 feet in height. Sandy loam appears to suit the plant admirably. While we advocate a good open, sunny position, we would not plant unless we had friendly shelter from cold north and east winds.

We have endeavoured in the accompanying illustrations to show the simple means by which this subject may be increased. No great knowledge is necessary to propagate Lavender successfully. There are times and seasons, however, when the work should be done, and these must necessarily be somewhat rigorously observed. Lavender may be propagated in March and April, and again in September and October. There are those who aver that the propagation of this plant may be done at any time when the weather is open. That may be, and we have no doubt a successful propagator could continue his work over a good many months of the year quite successfully. In the present instance our concern is to make the matter simple for the beginner, and for this reason we recommend him to make the best use of the latter part of March and early April. Assuming he has a spare plant or two in proper condition in his garden, or provides himself with a plant or two from the nurseryman, individual plants should be represented by a small specimen very similar to that portrayed in Fig. 1. This, it will be observed, is a shrubby little plant capable of making a good individual specimen later on, but ideal at the present time for dividing up into numerous pieces for increasing our supply of this subject. Note the sturdy growths and the plentiful supply of roots at the base of the plant. Now, if this specimen be divided with just a little care, it should be possible to break out each piece with a few roots adhering, and when this latter is an accomplished fact, the chances of succeeding are increased very considerably.

Fig. 2 serves to illustrate the character of the divided pieces. In this picture there are but two

2.—TWO OF THE LARGER DIVIDED PIECES OF THE PLANT SEEN IN FIG. 1. THERE SHOULD BE QUITE A DOZEN SUCH PIECES IN THE PLANT REFERRED TO.

pieces, but such a plant as that represented in Fig. 1 should provide at least a dozen, each of which would make a fine plant ultimately. The beginner may now say: What am I to do with these divided pieces? To this we reply: Insert the larger divided pieces in well-prepared soil, observing a distance between each piece of about 1 foot, and in rows a similar distance asunder. Plant each piece firmly, first taking out sufficient soil to ensure the roots being well buried. By this method of increasing Lavender shapely little plants may be quickly brought into effect.

While there are a number of stout branching pieces in each plant, such as are depicted in Fig. 2, there are also numerous sturdy little

3.—SPECIMENS OF SOME OF THE SMALLER DIVIDED PIECES. NOTE HOW EACH PIECE HAS ROOTS ADHERING. ONE OLD PLANT WILL MAKE A LARGE NUMBER OF SUCH PIECES.

rooted pieces that come about when the division of the old plant is made. And, again, there may be readers who would prefer to make a big bed of Lavender and who, in achieving this object, are prepared to divide their old plants into as many pieces as possible, placing the rooted shoots in one heap and the unrooted pieces in another. The rooted pieces, just as they are broken out from the old plant, are represented in Fig. 3. They all denote promise, the roots in each instance ensuring this. What can we do with such pieces? They may be inserted in nice, light, friable soil 4 inches apart and the soil pressed firmly at the base of each one. The bed should not be too wide, but just sufficiently so to enable the grower to give attention to the young plants as they grow. We should be disposed to plant the better plants in their permanent quarters in the succeeding October. Six months in the propagating bed will make a great difference in these smaller divided pieces.

Fig. 4 serves to illustrate a Lavender cutting. This has been torn off the plant and is one of the unrooted pieces referred to before that were placed in a heap by themselves. Note the "heel" at the base of the stalk. If these cuttings are inserted in sandy soil outdoors, and a distance of 4 inches between each one be allowed, they should succeed very well. Press the soil firmly at the base of each cutting to ensure its rooting. It is a good plan to insert the cuttings in ground where they are to grow, and about a year subsequently to lift alternate plants, planting these elsewhere, and leave the others to progress unchecked by lifting and replanting that would be the case otherwise. They transplant readily enough, however. Seeds of the Lavender may be sown outdoors in April, should any reader prefer to raise plants by these means. D. B. C.

DEEP CULTIVATION.

Vegetables, Roses, fruit trees, shrubs and nearly all other kinds of garden subjects which are grown from year to year do best and are altogether more satisfactory when the soil is deeply trenched. Trenching does not mean the bringing up of the subsoil to the surface; it means the proper loosening of all the soil to a considerable depth, varying, generally, from 18 inches to 2 feet. It is easy to loosen the soil to a depth of 18 inches. When the cultivator is engaged in digging a border in the flower garden, or a plot in the vegetable quarters, he must turn over the surface portion to the depth of the spade, and then drive in the spade or garden fork and loosen the subsoil to a further depth of about 9 inches. Vegetables always withstand a spell of very hot weather when they are growing in deeply trenched ground. The plants make more roots and penetrate deeper in deeply cultivated soil than in shallow, and work entailed by deep digging or trenching is sure to give a good return. We must couple surface mulching of crops with deep cultivation, as both are so conducive to good results.

HINTS ON PLANTING A DRY BORDER.

In many gardens there are very dry borders which, on account of their position and the character of the soil, remain in such a condition almost the whole of the year round. Very often these dry borders are in positions that the owner wishes to have well furnished with flowering and foliage plants, and by assiduous attention almost every kind of ordinary bedding-out plant may be successfully grown therein; but there are several specially suitable for these positions. They are single-flowered Petunias, Portulaca, Nasturtiums, Zonal Pelargoniums and Gazanias. Not only will the above-named plants make good and free growth, but flower profusely also. Now, it is much more satisfactory to cultivate those plants most suitable for the position than other subjects which are unsuitable, and are only a partial success, even when constant attention is bestowed upon them.

The selection of the right kinds of plants is not the only consideration; the soil must be dealt with. Dry borders are generally hard, and so it will be advisable to dig up the soil very deeply and put in a liberal quantity of well-rotted manure, mixing it with the soil chiefly about 1 foot below the surface. The roots of the plants will soon permeate the manured soil, and as this portion remains fairly moist, even during a long spell of dry weather, the plants continue to grow and blossom freely. This would not be the case, however, if the manure was mixed with the surface soil only.

A neat mulch of Cocoanut fibre is also a valuable aid, and when water is needed a thorough soaking must be given. Merely wetting the surface soil will not prove very beneficial; in fact, it does harm by attracting the roots to the surface, where they soon perish when exposed to the scorching rays of the sun in summer. Before putting out any plants in a dry border moisten the soil with water, and then plant about twelve hours afterwards. Shamrock.

THE TOWN GARDEN.

Wallflowers.—For town gardens there are few plants more suitable than these. Although the plants will grow in almost any kind of soil and in nearly every position, it is just as well to give them as good treatment as possible, as few plants pay better for attention. The weakly seedling—the result of late sowing of seeds, and neglect as regards transplanting of seedlings while they were quite small—is not to be taken as an average specimen of the Wallflower. Usually, such plants only produce one small central spike of blooms, the individual flowers being very tiny, too. The well-grown plant is bushy, and only a few of them are required to fill a bed of medium size. Each plant forms a bouquet of flowers. It is never wise to grow the young Wallflower plants in a very rich soil before they are put out in their flowering quarters, because they would make a too luxuriant growth, which would not withstand a severe winter. Indeed, the weather of the past few weeks has been very trying both to Wallflowers and other spring-flowering subjects. Where the plants are already established in their flowering beds, it would be a good plan to gently stir up the surface soil around them without in any way disturbing the roots, and then put on a top-dressing of loam and rotted manure. If the cultivator is quite sure that the soil in which the plants are growing is poor, no time must be lost in giving them such assistance.

Spring Planting of Wallflowers.—There are thousands of owners of town gardens who do not attempt to put out any Wallflowers before spring. In such instances the soil must be made rich with rotted manure and be deeply dug. The soil must be fairly dry when the digging, manuring and planting work is done, because the Wallflowers will grow better afterwards. It is advisable to make the soil pretty firm around the roots of the plants, and this can only be done with advantage while the soil, both on the soil and several inches below, is sufficiently dry not to adhere to the hands and tools. Take the first opportunity to get in all the plants, so that they may get established before the very drying winds blow.

Herbaceous Plants.—Crocuses, Snowdrops and other early flowering bulbs have been very tardy in the development of their blooms this year so far, on account of the cold, chilly weather. Thousands of Crocuses have opened their blossoms, in many instances before the buds had well cleared the border soil, as if they wished to do their duty and flower without exposing themselves to the cold winds. The absence of rain and the very cold nights during February were the chief factors in arresting growth. However, we are now able to get on with the planting of many kinds of herbaceous subjects, and most of these are grand for town garden embellishment. Doronicums are lovely yellow Daisy-shaped flowers, and are extremely useful for the filling of glass vases in the dwelling-house. Clumps may now be purchased and planted, and in a very short time blossoms will be available for cutting. Other useful border plants that may be put in at once are Gaillardias, Helenium grandiflorum, Shasta Daisy, Tritomas, Phloxes in variety, Michaelmas Daisies in variety, Golden Rod (Solidago), Aquilegias, Veronicas, early-flowering Chrysanthemums and Sweet Williams. All of them are hardy and will thrive and blossom in cool, hot, exposed or shady borders such as are often found in town gardens. Not only may new plants be put in, but the old clumps which have not been disturbed for many years may also be dug up, divided carefully, and all the best parts replanted after the soil has been turned over deeply and enriched with manure. The flowers from the replanted portions will be much finer than those previously grown on the poor, impoverished old specimens; but it is absolutely essential that the work be carried out now without further delay, as growth is becoming active.

Loosening Surface Soil. A neatly kept garden is always very attractive, and the hoeing of the borders adds considerably to the beauty of the whole of the surroundings. Furthermore, the loosening of the surface soil, besides keeping down the weeds, lets in the heat from the sun, and so induces a very early and healthy growth in the plants. Do this work while the soil is moderately dry. Avon.

4.—A LAVENDER CUTTING. NOTE THE "HEEL" AT THE BASE. SUCH CUTTINGS SHOULD BE FIRMLY INSERTED IN SANDY SOIL.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

THIS is one of the very busy months in the flower garden, so many things requiring immediate attention, and work, if in arrears, must be pushed forward before the general bedding-out season arrives.

Carnations which have been wintered in cold frames may be planted out in well-prepared beds, and good dressings with soot and wood-ashes previous to planting will greatly assist the plants at a later period and be helpful in keeping them free from slugs. Pyrethrums, Pentstemons and Hollyhocks may also be put out where they are intended to flower. Edging the beds with Cerastium and other more hardy plants to take the place of tender subjects should be practised whenever circumstances will allow.

Box Edging.—Lifting and replanting of this must not be longer delayed; let the ground be dug and made firm. Plant rather thinly and tread the soil well. Pieces pulled from the old plants with or without roots will grow freely if kept moist; they should be planted 4 inches to 6 inches deep, leaving about 3 inches of the tops above the soil.

Violets in frames will now be blooming freely; keep the roots moist and remove the lights on all favourable occasions. As soon as the flowering period is past, lose no time in propagating a fresh stock for another season. Young side pieces taken from the old plants with roots attached and planted on a west border, or north in the warmer parts, 1 foot apart, the soil made rather firm and watered at intervals, should the weather prove dry, will make fine plants by September.

HARDY FRUIT.

Strawberry Beds.—When the weather is favourable, permanent beds will need attention. Remove weeds and some of the old dead leaves, dress with soot, and mulch between the rows and close up to the plants with strawy litter. This will, by the fruiting season, have been washed clean by the rains and be perfectly sweet for the fruits to rest upon.

Grafting.—As soon as the bark parts freely from the wood, grafting may be taken in hand. At all times when grafting or regrafting is to be performed, let the stock be a little in advance of the scion. The varieties I intend to increase for culinary purposes are Bramley's Seedling, Chelmsford Wonder, Lane's Prince Albert, Newton Wonder and Gooseberry Apple. Dessert: Baxter's Pearmain, Lord Burghley, Barnack Beauty, Northern Spy and Lord Hindlip.

Plums.—These we have washed repeatedly with quassia extract, and any main branches infested with scale with caustic alkali. Bullfinches must be checked in some way should they attack the buds, and before the whole of the crop is destroyed.

VEGETABLE GARDEN.

Potatoes.—As soon as the land is in a fit state the planting of Potatoes may be pushed forward. The early varieties to follow those which may be growing in frames should be given a warm position. Our first crop from outside are those which have been planted close to the foot of a wall in front of the glass-houses, May Queen and Rivers' Early Ashleaf being the varieties. The land best suited for the production of good quality tubers is that of a deep and rather sandy loam, which has been manured for some previous crop.

Peas and Broad Beans.—Sow these to follow the early varieties. Early Giant, Criterion, and any of the approved wrinkled Marrowfats may be selected. Those just above the soil should be given a good dressing of soot and wood-ashes prior to drawing a little soil over and among them in frosty weather. Stake them early, and should the weather prove very cold, a few pieces of Spruce or Portugal Laurel inserted along the side of the rows will greatly protect them from cutting winds. Give plenty of air in mild weather to early Potatoes, Carrots, Turnips, Lettuces, &c., growing in frames, to prevent them from getting drawn. Prick off Celery, Lettuces, Cauliflowers, and any other seedling plants growing under glass, and encourage them to grow away freely. Cauliflowers raised from seed last September may now be planted out on good rich land 18 inches apart, and 20 inches from row to row. Brussels Sprouts and many other seeds may now be sown in small beds; give the land a good dressing with soot prior to sowing the seed.

H. MARKHAM.
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Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

FLOWER GARDEN.

CLIMBING PLANTS.—The early part of April is a very suitable time for planting various subjects for furnishing pergolas or other structures. If the plants are established in pots, little or no check will be given in the operation; but if raised from the soil, thereby causing much disturbance of the root system, attention to watering in dry periods and protection from drying winds will be of much assistance. Roses of trailing habit stand pre-eminent for the purpose, and a selection from the Tea, Noisette and wichuraiana classes would ensure ample foliage and a varied and brilliant inflorescence for a long season. Bouquet d'Or, Captain Christy, Reine Marie Henriette, Ards Rover, Mme. Berard, Grüss an Teplitz, Gloire de Dijon and W. A. Richardson are among the best of the former; while the latter consist of such as Dorothy Perkins, Lady Gay, Longworth Rambler, Rubin, Leuchtstern, The Garland and Crimson Rambler.

Clematises.—The small-flowering varieties of these, such as C. montana, C. Flammula and C. Vitalba are well adapted for quickly covering unsightly objects or for trailing upon tree stems, while the many beautiful forms of the genus, such as C. patens, C. lanuginosa and C. Jackmanii varieties, are suitable for most positions. The white and the purple forms of the last named are probably the most widely known, and are the hardiest and most free flowering of the order. These should be pruned rather severely now, as flowers are produced upon the young shoots; but with the others this takes place upon the previous year's wood, hence a moderate thinning of this in spring suffices.

Loniceras, Vitis, Jasminums and Ampelopsis in considerable variety are excellent for Northern gardens; of the latter A. Veitchii is one of the best for clinging to a wall. Tropæolum speciosum, though somewhat uncertain, thrives well in places against a wall or fence; established among shrubs, the slender, leafy growths studded with flowers in late summer, and later with violet-coloured berries, display both beauty and gracefulness.

Edgings should be put in order. Box may be entirely replanted, or, failing this, any gaps made up. Other edging plants, such as Thrift Grass, Saxifrages, Daisies or other evergreen subjects, may be replanted or restricted to a well-defined line, according to the necessity of the case. Ivy upon walls may be closely cut, with every prospect of the bareness occasioned thereby being of short duration. Laurels and other common shrubs may be cut back, but the Portugal species, as well as Rhododendrons and Hollies, would be better left for a while.

BEDDING PLANTS.

Geraniums potted some time ago should be frequently pinched to induce sturdiness, and if in warm houses be transferred to frames as soon as this course is considered safe.

Begonia Tubers of two or more years' growth that have been started in warmth may likewise be moved to frames before the growths become drawn. Last year's seedlings may be afforded more warmth to promote strength, more especially so if a position near the glass can be given them. Seedlings of all descriptions should be pricked out from the seed-bed before crowding takes place; some kinds will require a genial temperature to enable them to attain sufficient size by the end of May, while others will advance rapidly enough if protected from frosts and cold winds.

KITCHEN GARDEN.

Seed-sowing.—If through stress of weather the sowing of any important crop has been deferred, advantage should be taken when the soil is in good condition to rectify this.

Carrots.—The main crop of these may now be sown, and a dressing of soot previously incorporated with the surface soil will tend to circumvent the attentions of the Carrot fly. To grow fine specimens, deep holes should be made with a pointed bar, and these being filled with finely sifted sandy soil and all made firm, sowing and covering in the usual way may follow.

JAMES DAY.
(Gardener to the Earl of Galloway.)
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THE EDITOR'S TABLE.

EARLY DAFFODILS FROM MR. PETER BARR.

Mr. Peter Barr, V.M.H., writes this welcome letter: "I am sending you my first Daffodils—N. minimus was out three weeks ago; the first N. pallidus præcox, two weeks ago. Of the last mentioned, more came out a week ago; but as if afraid of the night frosts, most keep under ground and are just appearing through the soil. Of N. cyclamineus only one has appeared, and I send it to you; the same with N. nanus."

ODONTOGLOSSUMS FROM EPSOM.

Mr. George Boyd, gardener to S. F. Jackson, Esq., Danehurst, Epsom, sends us splendid racemes of Odontoglossums, which show signs of remarkably good cultivation and which were most welcome on a dull day. He writes: "I fear your flower-bowl has had to suffer somewhat lately on account of the long spell of sharp weather; therefore I enclose you half-a-dozen of our Odontoglossums in variety. They are typical of the varieties represented, viz., O. crispum, O. c. Trianæ, O. Pescatorei, O. Mulus, O. andersonianum and O. Adrianæ. They cannot be termed good, as we understand it, yet they are too good to be discarded, so we grow them in abundance to supply cut flowers; and I think you will agree with me that for this purpose it is hard to find their equal. Those who have to supply high-class cut flowers for decorative purposes in winter should certainly grow Odontoglossums. If the ease with which these lovely subjects can be grown and flowered were more generally known, I do not think there would be many establishments of any dimensions without an Odontoglossum house. We winter ours in a temperature of about 50°; through the summer the thermometer often rises to 70°, but this does no harm provided plenty of moisture is maintained. They must be well shaded during hot, bright weather and plenty of air given on all suitable occasions. Through the winter and dull periods plenty of light must be given. A good potting compost consists of good fibrous peat, sphagnum moss and partly decayed Oak leaves, with a little silver sand. Leaf-mould should not be used, as it makes the compost too solid, when it should be porous. Pots are drained with the rhizomes from the peat after they have been thoroughly dried to ensure they do not grow."

NEW PLANTS.

Sophro-Cattlælia Clive. — This charming Orchid has a rather mixed parentage, it being the result of a cross between Sophro-Lælia Psyche and Cattleya Enid. The flowers are rather small, of Cattleya shape and of a rich terra-cotta or sort of dull scarlet hue, the lip being crimson, with rich yellow markings in the throat. Shown by J. Gurney Fowler, Esq., The Glebelands, South Woodford. Award of merit.

Brasso-Cattleya digbyana Mendelii Perfecta.—This is a very large-flowered form and somewhat deeper in colour than the type, the mauve colour being more rosy and pronounced. The yellow marking on the highly fimbriated labellum is also deeper, and the flowers are certainly very fine.

Dendrobium schröderianum Westonbirt variety. A very beautiful variety of considerable decorative value. The medium-sized flowers are freely borne on long, stout stems, the sepals, petals and labellum having a creamy white ground colour, with deep rosy mauve markings at the tips of the segments. In addition the labellum has a large, very rich yellow blotch placed in the centre. Both the above were shown by Lieutenant-Colonel Holford, C.I.E., C.V.O., Westonbirt, Tetbury, Gloucestershire, and each received an award of merit.

Pteris aquilina congesta.—The varietal name in this case is so descriptive of the dense, congested character of the overlapping pinnæ that little further need be said beyond the fact that it is the most remarkable variation in the common Bracken that we have seen. The plant is, of course, as hardy as the type and obviously very free in growth. We have seen many acres of this well-known typical species without the least sign of a break, and we believe the present instance to be one of the very few that are known. Shown by Messrs. H. B. May and Sons, Edmonton. First-class certificate.

Rose Rhea Reid.—This American-raised novelty is the result of crossing American Beauty and Red Seedling, and as a summer bedding variety, both in Paris and America last season, it is said to have proved to be the finest of outdoor varieties, bearing the unprecedented drought with impunity and providing a sheet of crimson-scarlet throughout the summer. As exhibited recently before the Royal Horticultural Society as a forcing variety the colour was pale red, the blooms very full and the older petals rolled back at the margin, as is the case with La France and others. Whether the remarkable discrepancy of colour as stated above is due to the forcing treatment and the absence of winter sun in England, we do not know; but in America its success as a forcing variety is said to be variable. The variety is certainly a free-flowering one, and if it can endure long-continued drought will not be wanting admirers on this side of the Atlantic. It is, we believe, from the same source as the welcome and now indispensable Richmond.

Crocus Sieberi versicolor.—One of the most charming varieties we have seen and, we believe, quite a rarity. The flowers appear contemporaneously with the striated leaves, the segments nearly oval in shape, the outer ones daintly marked with dark violet or plum and shaded with red. This delightful flower was shown by Mr. G. Reuthe, Keston, Kent. Award of merit.

Begonia hydrocotylifolia Saturne.—A very showy and handsome plant for the greenhouse or conservatory. The rotundate-cordate leaves are almost equal sided, dark green, and form a thickly set, spreading tuft of nearly 18 inches in diameter, above which the strong, succulent, close flower-stems rise to 2 feet or more in height. The flowers are of rosy salmon hue, and are produced in secund racemes of considerable length. Altogether a striking and very attractive plant. Shown by Messrs. Cannell and Sons, Swanley, Kent. Award of merit.

Carnation Rose Doré.—A Perpetual-flowering Carnation of the largest size, well formed, very full, with non-splitting calyx and long and strong stems. The colour is of rose red hue, an intermediate tone difficult adequately to convey in words. Shown by Mr. W. H. Lancashire, Guernsey. Award of merit.

Cineraria, large Cactus-flowered. — Messrs. Sutton and Sons, Reading, obtained an award of merit for their "Compacta" strain of the large Cactus-flowered Cineraria, a strain which represents the true Cactus-petalled form in the large-flowered or florist's varieties of these plants. We have nothing but praise for these perfect examples of cultural skill or for the decorative value of the strain as a whole, and for which we predict a great popularity. The many shades and gradations of colour are as interesting as they are beautiful.

All the above were shown before the Royal Horticultural Society on the 23rd ult., when the awards were made.

PRIMULA SINENSIS AT SWANLEY.

VISITORS to the fortnightly meetings of the Royal Horticultural Society see from time to time the Primula productions of Messrs. H. Cannell and Sons, Swanley, Kent, that "Home of Flowers," as it is called, and where so much enthusiasm prevails in the improvement of a large number of well-known florists' flowers. The exhibits of Messrs. Cannell in London I had seen and known for years past, and as I was not unacquainted with the "Home of Flowers" at other seasons of the year, I determined to get a glimpse of the firm's famous strains of Primulas at first hand, and so acted on the well-known invitation to "come and see." In former years I had seen the many thousands of plants that are here grown exclusively for seed-saving purposes, either when the flowering was just over, or at a later date when the plants were fast ripening their abundant crops of seeds. This season, however, I had the pleasure of seeing the fine collection of chiefly named sorts in perfection and when the houses of flowering plants were simply a blaze of colour.

In the large-flowered class Messrs. Cannell have some particularly good things to show, varieties whose handsome, clear-cut, or heavily fringed flowers command attention at once, while in the stellata or star-flowered group the majority were of the highest degree of merit, and in one or two instances nearly, if not quite, unique. As Messrs. Cannell pointed to first this and then to that fine acquisition in the Primula family, placing here a rule over a flower that exceeded 2⅝ inches in diameter, and there another that exceeded 3 inches across, one entered somewhat into the enthusiam of the Principal, who viewed with justifiable pride the work of years in the cross-breeding and selection of this indispensable race of plants. The work of improvement goes on year after year, despite the fact that the varieties we see to-day are of the highest merit and excellence.

In the Primula family, however—while the major portion of the named varieties are so fixed in character as to reproduce themselves absolutely true when raised from seeds—there would appear no sort of finality, no stage, so to speak, to be regarded as hopeless by the cross-breeder, and no variety of such an acme of perfection that it will not yield to the influence of another when crossed with it. In other words, instead of the Chinese Primula having reached the zenith of its power, or being worked out or rendered barren or sterile as the result of many generations of cross-breeding, there is still the same room in certain directions for great improvements as of yore, and just as much of the old-time sportive element in certain sections of the flower as formerly. All this and much more is fully realised at Swanley to-day as for years past, and painstaking, intelligent work and patient waiting reap their reward in due course.

One of the sections of Messrs. Cannell's Primulas that interested me greatly was the stellata set, and in which were noted some remarkable varieties, such as Scarlet Gem, a most brilliant shade of colour; Unique, a rosy white with decided Duchess centre; The Lady, a pioneer of the stellata group, having dark stems and leaves, and white, yellow-eyed blossoms; Lady Emily and Lady E. Dyke, with flowers of the fairest white; with others to which the descriptive colour names of White Spray, Blue Lady, Red Rover and Salmon Beauty have been given. Countess of Radnor is an especially good sort, with blossoms of a brilliant fiery red, possessing, like the others I have named, all the best attributes of these now popular Star Primulas.

Equally telling and effective were many of the giants of the race, or the large-flowered section; and while I am not intent on making a catalogue of names that is available for all, I cannot refrain from a notice of such superb varieties as Mr. John Ward, a brilliant red flower; Mrs. Kennard, rosy purple; Mrs. C. Ward, an exquisite soft pink; Moonlight, a magnificent pure white sort with blossoms nearly 3 inches across; Queen Alexandra, a lovely pure white of large size, the handsome trusses well above the foliage; Mr. Marlow, rosy salmon; and A. G. Gardiner, of a rich reddish carmine shade. Apart from these there were many others in shades of blue, and that other beautiful set which is known as Fern-leaf, and in which also a large and diversified array of colour is to be found. These are but a few of the many choice things to be met with in the collection, the plants being crowned by fine trusses or pyramids of blossoms that will doubtless produce a rich harvest of seeds in due time. Messrs. Cannell recommend sowing the seeds in May and again in June, and as a matter of fact practise what they preach.

E. H. J.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* The Garden *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* Editor *of* The Garden, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* Publisher. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Water and rock garden (*H. P. M.*). The depth of water in the tank will not admit of the larger Water Lilies being grown long with success, but in the centre you might plant Nymphæa Marliacea carnea, and at the sides such plants as Stratiotes aloides, Sagittaria japonica plena and Butomus umbellatus. The plants should be sunk into position in pots of soil loaded with stones on the surface. In the bog garden you might plant a host of plants, as Trilliums, any of the hardy Cypripediums, such Lilies as canadense, superbum and pardalinum, Primula Sieboldii in variety, P. rosea, P. denticulata, Parnassias, Anemone robinsoniana, A. rivularis, Gentiana Andrewsii, G. asclepiadea and, if you have room, Iris Kæmpferi in one or two varieties. The soil for this part should be peat and loam equally with one-third of

manure and the same of sand, mixing all well together. In the rock garden you might select at will from such groups as Saxifraga, Androsace lanuginosa, alpine Phloxes, Aubrietias, Campanulas, Dianthus, Lithospermum, Arnebia echioides and other such plants. Generally speaking, a soil of gritty loam will be the best for all these.

Sub-tropical plants for bedding (*Salop*).—The variegated Maize to which you refer would, in our opinion, be so out of proportion to the Begonias and so generally unfit for an exposed position that we doubt whether it would prove a serviceable plant for the purpose. At the same time, the number of plants of a sub-tropical character that are easily raised from seeds is not numerous. The most suitable are Centaurea candidissima (white foliage) and Kochia tricophylla (Summer Cypress), which, green at first, turns to red in the autumn. Small examples of the Castor Oil Plant might also prove of service, and we have seen the thin under-planting of the variegated Cock's-foot Grass produce excellent results in a case like your own. The last named could not be raised from seeds, though the others may be.

Hyacinths and Lobelia (*Crux*).—You do not say whether the Hyacinths are all of one variety, and, even if so, it does not follow that growth will commence at the same time in each case. Not all the blossoms on a plant open at one time, and we are grateful for it, nor can we expect perfect uniformity in growth. No good will be done with manures at this stage, but a little patience might avail much. For the centre of the bed you might try scarlet or crimson tuberous Begonias, or the very free-flowering Salvia Gloire de Zurich. The Lobelia seeds to have made the strongest plants should have been sown some weeks ago, but if you sow at once the plants will still flower this year. Sow the seeds quite thinly in boxes or pans, and place in a warm, moist greenhouse, pricking the seedlings off and growing them on quickly when large enough to handle.

Violets diseased (*Juanito*).—The disease is the result of a fungus known as Urocystis Violæ, which is most troublesome and often destructive. There is no known cure, but preventive measures in the shape of sulphide of potassium might be adopted periodically from August onwards, using the sulphide at the rate of half an ounce to the gallon of, preferably, soft water. The better way would be to burn the plants, as the fungus invades the tissues of the plant to some extent and cannot be wholly eradicated. If you burn the plants, you should also discard, either by burning or burying, the whole of the soil, and then thoroughly cleanse the frame by washing with an emulsion of soft soap and sulphur. The sulphur should first be wetted into a thick paste, gradually adding more water, together with the dissolved soft soap. Half a pound of the soap and 1lb. of sulphur will be sufficient for three or four gallons.

ROSE GARDEN.

Manuring autumn-planted Roses (*Ambitious*).—As you did not afford any manure at the time of planting, you may safely give them some now, and you will find Wakeley's Hop Manure an excellent fertiliser. After you have pruned the plants give them a light sprinkling of the manure, and have this just forked beneath the soil. About the middle of May the plants may receive another light sprinkling, this time hoeing it in. We should say a 28lb. bag would be sufficient for the season for your plants. When the plants have become well established a much stronger sprinkling may be given, but it is advisable to be cautious in manuring newly planted Roses. The varieties you name are all good exhibition sorts, with the exception of Warrior and Mme. Ravary, they being too thin for exhibition, although beautiful garden decorative sorts. The Sweet Peas you name are all well-proved varieties. The naming of the varieties when exhibited should always be practised, and, no doubt, judges make a note of this when giving their awards. You must certainly try your hand at exhibiting on July 28. Prior to this, we should advise you to visit some good Rose show, also a Sweet Pea show, and watch exhibitors put up their exhibits, taking note of the style of arranging, as so much depends upon this. For exhibiting Roses you should obtain Foster's Rose-tubes. They are a great aid and enable the exhibitor to display his blooms to the best advantage. There is also a great art in tying a Rose bloom, which a visit to an exhibition would help you to copy.

Rose Marechal Niel shedding its new foliage (*W. T. N.*).—Sometimes canker will cause the new foliage to fall, but this cannot be the case with your plant, seeing that it made growths last season some 18 feet to 20 feet in length. It is difficult to assign a reason without seeing the plant or the soil it is growing in, but it looks to us like a case of too much moisture at the roots or a too heavy dose of artificial manure. We do not think the sulphur fumes would be the cause of the foliage falling, unless they were very strong. The growths may have been insufficiently ripened, or perhaps you did not remove the unripe ends of the growths before starting the plant this season. We advise you to be very careful in applying water. When once the soil is well moistened, this, with the syringing, will supply all the moisture the plant needs for some time. If you care to give us some details of your treatment of the Rose, we shall be pleased to give you further advice.

THE GREENHOUSE.

Tulip buds dying off (*Ard Coille*).—Without more detailed information it is difficult to say what is the exact cause of the buds going off as they have done. It is very improbable that it was the syringing with Abol, unless the boxes had already been in a very water-logged condition and this particular syringing was the last straw. Too much damp at the roots will cause it. We would also suggest that it may have been caused by suddenly bringing the plants into a greater heat than they could stand. We have seen one or two examples lately where this was undoubtedly the cause. On the other hand, it cannot always be explained. We have seen within the last week two pots of Darwin Tulips, where, out of six bulbs, four in one case and five in the other flowered quite nicely, but the others went off exactly like yours. What happened it is impossible to say, as there was no difference either in the roots or the foliage and there was ample root room.

Raising new Perpetual-flowering Carnations (*California*).—The hybridising or cross-fertilisation of the Perpetual-flowering Carnations is not at all a difficult matter. Of course, a great deal of the success or otherwise depends upon the selection of the parents. As the object is to improve the present race, no Carnation should be selected as a parent that shows any failing whatever. Habit, freedom of flowering and non-liability to burst the calyx are very important points to be taken into consideration. As a rule, too, little is gained by mixing up the different colours, the greatest amount of satisfaction being derived when the crossing is limited to the various shades of one colour; that is to say, pinks and roses with each other, and reds the same, as well as whites. Examination of a Carnation bloom will reveal the fact that the curved, horn-like stigmas furnish a prominent feature of the flower, the anthers with the pollen being on short stems and grouped at the base of the stigmas. To prevent these last being self-fertilised, the flower should, just before expansion, be cut open, making a slit with a sharp penknife just where the anthers are. Then, by the help of a pair of small tweezers, the anthers can be removed. The flower will be open a few days before the stigmas are ready for the pollen. This is shown by the upper side becoming somewhat woolly. It is then an easy matter to collect the pollen from any selected flower on a small camel-hair brush and apply it to the stigmas. Fertilisation soon shows itself by the withering of the flower and the subsequent formation of a seed-pod. After this care must be taken that no damp is allowed to collect around the ovary, otherwise the seed-pod is liable to damp off. The book by Mr. Allwood deals with cross-fertilising and raising plants from seed.

Geranium leaves going wrong (*Anxious*).—There is no doubt that the fumes of sulphur have caused the leaves of the Geraniums to go off in the way they have done. Sulphuring the pipes, though it may be done in the case of deciduous subjects that are absolutely dormant, should never be carried out when any of the occupants of the house are in leaf. We do not think that the lime-wash had anything to do with the trouble.

MISCELLANEOUS.

Names of plants.—*J. Williams.*—Maxillaria Meleagris.——*C. A. O.*—Galanthus Elwesii.——*F. A. S.*—1, Daybreak; 2, Enchantress; 3, Floriana; 4, Harlowarden; 5, Britannia; 6, looks like C. R. Dana; 7, Mrs. T. W. Lawson. We cannot be sure of the two last, as the flowers are quite out of character.——*A. Hawkins.*—The Snowdrop is Galanthus Elwesii; the Heath, Erica carnea.

SOCIETIES.

READING AND DISTRICT GARDENERS' ASSOCIATION.

A MOST interesting and entertaining lecture was given in connexion with the above society on Monday, March 8th, in the Abbey Hall, Reading, by Mr. W. F. Giles, one of Messrs. Sutton and Son's vegetable experts, the subject being "Vegetables Old and New." The lecture was illustrated by a collection of about 100 lantern slides. Mr. A. F. Bailey (chairman) presided, and there was an exceptionally large attendance of members. Mr. Giles opened his remarks by tracing the antiquity of some vegetables which still find favour in our own time, reminding his hearers that the Israelites, in their wanderings, murmured at being deprived of the Leeks and Onions which they had enjoyed during their sojourn in Egypt. Records concerning Radishes, too, are to be found depicted on the Pyramids. Pliny also was an authority on the vegetables used by the ill-fated inhabitants of Pompeii. The lecturer then drew attention to the fact that if in science, arts and commerce we had advanced by leaps and bounds, it was equally the case with regard to the production of new and improved vegetables. To give force to his remarks Mr. Giles threw upon the screen some pictures taken from "Gerarde's Herbal," published in 1597, showing the type of vegetables in vogue in the days of Good Queen Bess, and then, by way of contrast, illustrated some of the magnificent varieties of Peas, Beans, Broccoli, Cabbages, Celery, Carrots, Onions, Lettuces, Leeks, Melons, Tomatoes, Turnips, &c., sent out by the leading seed merchants of the present day. Mr. Giles then explained to his audience what immense pains are taken in selection, re-selection, crossing and re-crossing, in order to obtain new and retain the vigour of older varieties of vegetables, drawing attention to what had been done with garden Peas in particular since Thomas Andrew Knight, afterwards president of the Royal Horticultural Society, made the first recorded cross with Peas in 1787. At the conclusion of his lecture Mr. Giles was warmly applauded, and at the close of the meeting was accorded a hearty vote of thanks. Mr. Charles Foster, Assistant-Director in Horticulture, University College, Reading, exhibited a splendid collection of forced vegetables, including Asparagus, Lettuces, Radishes, Rhubarb, Seakale, &c., which evoked much admiration. Several new members were elected.

BROUGHTY FERRY HORTICULTURAL ASSOCIATION.

THE usual monthly meeting of the Broughty Ferry Horticultural Association was held in the British Restaurant, Broughty Ferry, on the evening of the 16th ult. There was a good attendance of members, and Mr. W. Grant occupied the chair. The paper for the evening was on the subject of "Spring Flowers," and in it the author, Mr. John Carmichael, Rosely Gardens, Arbroath, gave a most pleasing account of the flowers of spring and their beauties and requirements. One of the finest papers yet given to this association, it met with marked appreciation, and Mr. Carmichael was warmly thanked for his able and eloquent address.

CROYDON AND DISTRICT HORTICULTURAL MUTUAL IMPROVEMENT SOCIETY.

ALTHOUGH not strictly horticultural, there is a close affinity between birds and gardening, and this society possesses in one of its members a great enthusiast in the study of bird-life. Recently, at the Sunflower Temperance Hotel, Mr. P. F. Bunyard, M.B.O.U.F.Z.S., gave a very able lecture on "A Trip to the North Uist." The lecturer, accompanied by a friend, recently paid a visit to this part of the British Isles in search of further knowledge in his study, and keen as he is an ornithologist, he never loses an opportunity of recording items of interest in horticulture, so that he is able to tell his fellow-members what may be interesting to them from a botanist's point of view. The camera had been brought into good requisition, and from the photographs taken he had had slides made for the lantern; hence, with the help of these views, he was able to portray to his audience illustrations of what may be found in vegetation on this island. North Uist being comparatively a small island and the soil very poor, there is not much interest from a horticulturist's point of view; however, one feature very noticeable to the lecturer was the double white Pheasant's-eye Narcissus growing in big quantities, and for size of bloom greater than he had seen elsewhere. Potatoes are a good deal grown, and other vegetables for domestic use may be found. Some very good views of birds, birds' nests and eggs were shown, and altogether the lecturer well entertained his audience, who conveyed to him a very hearty vote of thanks at the conclusion.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

TREES AND SHRUBS FOR THE WATER-SIDE.

THE beauty of a lake or stream depends largely on the nature of the plants which fringe its margin, and the arborescent growth plays an even more important part than that of herbaceous character, for well-placed and suitable trees and shrubs break up the margin and offer a succession of fresh views, instead of allowing the eye to take in the whole of the water at once. While, however, it is highly essential that tree and shrub life should be found in the vicinity of a lake, it ought not to be overdone, and the various plants used should be so arranged that good views can be obtained of ample sheets of water, and also that each tree or group of trees opens out a fresh vista.

Although most kinds of trees will thrive on the banks of lakes where the ground is not marshy, some do not associate well with water. Heavy-looking trees, as a rule, are not desirable, especially if planted in quantity, as they produce too sombre an effect. Those of a light and graceful outline have greater attractions, while some of those of a fastigiate or columnar habit may be introduced successfully. Trees of free, pendulous habit are popular for the work and have much to commend them; but weeping trees of more or less formal outline, such as some of the Ashes, grown in umbrella fashion are not appropriate. The reflection of suitable trees in the water is part of their value, weeping and fastigiate trees being very effective, while the coloured bark of various subjects makes them very desirable.

Should the margins be of a marshy nature, the various Willows, Alders and Poplars will be quite at home. The most popular Willow of all is Salix babylonica (the common Weeping Willow). Its light and graceful branches hang in streamers many feet in length, and are clothed with the daintiest of green leaves. An uncommon variety of equal merit regarding habit and foliage possesses the advantage of having bright golden bark. It is known as S. b. ramulis aureis. Another good variety of the Babylonian Willow is S. b. Salamoni, while the pendulous variety of S. purpurea is of particularly elegant appearance. S. elegantissima is also a pendulous Willow, while S. fragilis and its bright-barked variety basfordiana may also be planted. S. alba forms an ornamental tree, while those people who desire to combine ornament with profit would do well to plant those forms which are recommended for the manufacture of cricket bats. The forms of S. alba vitellina, with red and yellow bark, make delightful pictures, the colour being most brilliant when they are cut over annually. A variety with red stems known as britzensis is also ornamental.

The various Alders are useful subjects, the golden-leaved form of Alnus glutinosa being effective, while the cut-leaved varieties of the same species, known respectively as imperialis, incisa and laciniata, are pretty. A. incana bears fine foliage and large fruits, while the variety ramulis coccineis is conspicuous by reason of its red stems. A pretty Japanese species is known as A. firma. It is uncommon and worth planting extensively for ornamental work.

The various Poplars may also be used. The fastigiate varieties, such as the common Lombardy Poplar and Populus alba pyramidalis are useful to form groups in the vicinity of water, where they stand straight and sentinel-like among other trees and produce a similar reflection in the water. The common and American Aspen each give us pendulous varieties. They form ornamental trees and are very curious in spring when covered with their long, pendulous catkins. Populus alba and its variety nivea and P. canescens are remarkable for their silvery leaves, while P. deltoidea aurea has golden foliage. The Pterocaryas may be planted in damp ground, where they will grow rapidly and form fine foliage. The deciduous Cypress (Taxodium distichum) is of stiff, fastigiate habit while young, and is effective either during summer while the leaves are green, or throughout autumn when the foliage is a rich brown. For the banks of lakes or streams, where the stems will not be continually wet, but where roots can get to the water, lots of trees will thrive, and such things as red and white Thorns, double-flowered Cherries, Pyrus floribunda, P. spectabilis, Catalpa bignonioides and its golden variety and the various Robinias may be planted. Should high ground occur in the vicinity of water, a well-placed group of Silver Birches may be introduced with success, the reflection of the white trunks in the water being very pretty.

Shrubs of various kinds may be planted about the margins of lakes or streams, such as Diervillas—better known, perhaps, as Weigelas—double-flowered Gorse, rambling Roses, double-flowered Blackberries, golden-leaved Elders, the silver-leaved form of Salix repens, Berberis stenophylla, Rhododendron ponticum, Tamarix in variety—particularly T. chinensis, which is of very graceful outline, and T. pentandra, which is remarkable for its profusion of pretty rose-coloured flowers in summer—Spiræa Aitchisonii and hosts of other plants. Although the selection is somewhat limited where the ground is naturally wet, there is practically no limit of

material for those situations where the plants can be placed well out of the water but so that the roots can grow through the bank and into the water. For sheltered positions Bamboos may be introduced, the graceful, wand-like branches being charming when at their best. They must not, however, be planted indiscriminately. W. DALLIMORE.

PRIZES FOR READERS. APRIL

THE BEST PERENNIALS AND BIENNIALS FOR THE GARDEN AND HOW TO RAISE THEM FROM SEED.

A First Prize of FOUR GUINEAS,
A Second Prize of TWO GUINEAS,
A Third Prize of ONE GUINEA,
And a Fourth Prize of HALF-A-GUINEA
are offered for the best essays on the above subject.

Attention should be given to the time of sowing, best soil to use and other cultural details.

The notes (restricted to 1,500 words) must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, W.C." The essays must reach this office not later than Friday, April 30. Both amateur and professional gardeners may compete, but it is hoped that those who contribute regularly to the pages of THE GARDEN will not do so. The name and address of the competitor must be written upon the MS., and not upon a separate piece of paper. The Editor accepts no responsibility for and cannot undertake to return the MSS. of unsuccessful competitors. The Editor's decision is final

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

*** *The dates given below are those supplied by the respective Secretaries.*

April 15.—Kingsbridge Daffodil and Spring Flower Show.

April 20.—Royal Horticultural Society. Exhibition of Flowers, &c. National Auricula and Primula Society's Show, 1—6. Lecture, 3 p.m., by Mr. Eric Drabble, D.Sc., on "Pansies." Admission 2s. 6d. Royal Horticultural Hall, Vincent Square, Westminster. Devon Daffodil Society's Show (two days).

April 22.—Midland Daffodil Society's Exhibition (two days).

National Sweet Pea Society.—This vigorous society has just published an official catalogue of Sweet Pea names which should be in the hands of all who grow or are in any way interested in this beautiful flower. The names are arranged alphabetically, those of the most up-to-date varieties being printed in heavy type and synonyms in italics. Copies can be obtained, post free 7d. each, from the hon. secretary, Mr. C. H. Curtis, Adelaide Road, Brentford, Middlesex.

Horticulture at the White City.—Mr. J. Jaques has again been appointed to take charge of the horticultural department of the Great White City, where he has now commenced his duties. This year it is intended to give fuller scope to this branch. The spacious grounds afford the fullest facilities for effective bedding displays, and every arrangement is being made to allot good positions to the nurserymen who are desirous of taking plots. It is hoped to include some of the finest specimens of this branch of nurseryman's art, and this can be seen to the best advantage in the open spaces surrounding the very artistic buildings. The arrangements for the season are not complete, but it is probable that there will be some flower shows on an extensive scale, which will prove a great attraction to the numerous visitors who will again flock to the White City.

British Gardeners' Association. At the last meeting of this association, Mr. E. F. Hawes in the chair, forty-one new members were elected, bringing the total up to 1,473. Mr. Charles Foster was congratulated on his new appointment to Lord Northcliffe. It was decided that the annual general meeting of the association should be held at the Essex Hall, Essex Street, Strand, W.C., on Wednesday, May 26, at 7 p.m., the second day of the Temple Show.—JOHN WEATHERS, *Secretary.*

"Rock, wall and water gardens." This is the title of a splendidly illustrated booklet just issued by Messrs. R. Wallace and Co., Kilnfield Gardens, Colchester. The selection of sites, formation of the gardens and the best plants to utilise for furnishing them are all dealt with in a most lucid manner, numerous illustrations of portions of beautiful rock and other gardens being given. Such information coming from so excellent a source cannot fail to be of the greatest assistance to all who are contemplating the formation of, or who possess, such gardens.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Artificial manures. — Will "K.," whose article on artificial manures appeared in THE GARDEN of March 27th, state whether Wakeley's Hop Manure, which he recommends, is sold under a guaranteed analysis, as required under the Fertilisers and Feeding Stuffs Act, and if so, what percentages of nitrogen, potash and phosphates it contains as compared with a fair sample of spent Hops which has not been chemically treated? Allowing for the humus spent Hops contain, its value consists in the percentages of the above ingredients only. Usually spent Hops can be obtained from any brewery for a few shillings per ton, and seeing that the moisture amounts to from 60 to 85 per cent. they are not worth more.—A USER OF SPENT HOPS.

The Perpetual-flowering Carnation Society. — I fully endorse every word that Mr. Laurence Cook says *re* "A. D.'s" disparaging remarks about the above society on page 99. "A. D." writes: "Really, so far the Royal Horticultural Society seems, by the freedom with which it places space at the disposal of growers, not merely twice a year, but twenty-seven times, to do all that is needed to encourage Carnation growing of the section referred to." That is where "A. D." is decidedly wrong. No doubt if he attended the show on March 24 he must have had a rude awakening when he saw the great attendance that came to see the most popular flower of the present time. The above society is doing grand work in encouraging new varieties, granting an award of merit to those only which have a perfect stem, calyx and flower, also the scent—which lately had become a small consideration, but which ought to be first—and advice to amateurs *re* the cultivation of the Carnation is given by nearly all the expert growers in the south of England and the Channel Islands. All varieties that are not worth growing, and also the too-much-alike varieties, are also stuck out. Does "A. D." think that all the encouragement has been given to this lovely flower that it deserves? What do they offer for it at the York Gala or at Shrewsbury? It is for these reasons that the Perpetual-flowering Carnation Society was formed to look after its own interest and to help the flower in every way it deserved, and I am very glad that the horticultural Press is not of the same opinion as "A. D." They one and all, without exception, have helped this society to get stronger and have given it every encouragement.—A. T. PASKETT, *Burrswood, Groombridge.*

Forced Daffodils.—I am greatly interested by the remarks of the Rev. Joseph Jacob on page 152 in reference to the above subject. On March 9, the Narcissus committee of the Royal Horticultural Society for the first time, I believe, gave awards of commendation to two very diverse forms of Narcissi for their value as forcing varieties, without in the least indicating the direction of the merit of the variety. In giving awards to such things as Dahlias and Chrysanthemums, the floral committee of the same society indicates to some extent the merit of any certificated novelty by the use of such terms as decorative, show, fancy, Pæony-flowered, Cactus, &c., in the case of the former, and by decorative, market, show, early flowering and the like in the case of the latter; hence a person a hundred miles away gets some idea of the value and, at the same time, the section to which the variety belongs. But it is a little vague and not a little puzzling to those who do not see certificated varieties of Narcissi to be simply informed that a certain variety received a certificate of commendation as a forcing variety, and this without the least qualification. The award is all the more puzzling when one remembers that on the occasion in question there were probably dozens of varieties shown, all of which had been forced into flower. Some of these were notable sorts, such as Duke of Bedford, Victoria, Emperor, Empress, White Lady, and many others of the self yellow class; but possibly none of these were entered for certificate in any form. In view of the fact, however, that so many forced varieties were staged on the date named, and the additional fact that for two months prior to March 9 the forced Daffodil had been a prominent feature in the chief markets and in the shops, that date appears to constitute no adequate test or guide whereby the forcing value of any variety might be determined. Indeed, it is not going too far—if one excludes the Lent Lily and the May-flowering Poeticus, or those recent novelties that are more decidedly under its influence than some others—to say that by far the great majority of varieties existing to-day could be produced in excellent condition in the early days of March, and in a more congenial season than the present at a much earlier date. It is in these circumstances, I think, that the present method of awarding the certificate possesses but little value. It would also, I venture to suggest, add appreciably to the educational side of the subject were such novelties required to be shown as pot-grown examples as well as in the cut state; and by stating whether the variety was a show or market sort—for the forcing award would, of course, be outside the garden merit of the variety—much useful information would be imparted. That there is not merely merit, but great commercial value, in the Daffodil of right colour-tone that will force early is well known to some, but it is an attribute the merit of which should be revealed at a much earlier date than the opening days of the second week of March. By forcing it should be understood that the variety loses nothing appreciably of its colour, its serviceable stature or its chief characteristics.—E. H. JENKINS, *Hampton Hill.*

A floriferous Crocus.—Among some Crocus bulbs (purchased from Messrs. Carter and Co.) which I put in my garden last autumn, and which are all blooming very profusely, is one now bearing fifteen blooms. I should be much interested to know whether this number of blooms from one bulb is exceptional? As far as my own experience in a suburban garden goes

it is certainly out of the common. Perhaps you would kindly publish this letter, as I should be very interested to know if any other of your readers have obtained equal or better results.—E. O. Spencer, *Streatham.*

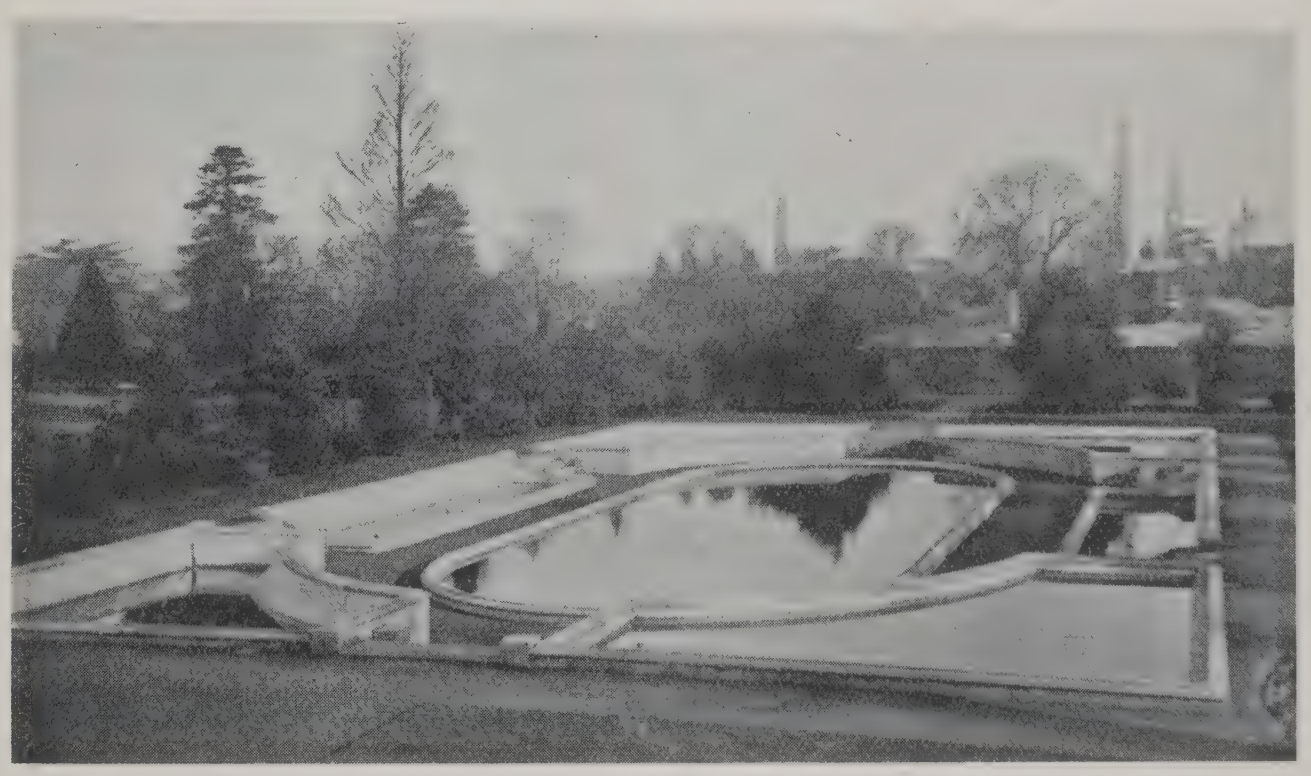
Forced bulbs and eelworms.—I was much interested in the article on the above in your issue of the 20th ult., page 139. Last autumn, having rather a large batch of Malmaison Carnations, I was somewhat alarmed by several of them showing signs of sickness and then, all of a sudden, total collapse. I found upon close examination that this was caused by eelworms, they having been in the loam used in the potting and which was cut from a deer park last May. What was to be done? I could not water them with any special preparation, as at that season of the year too much of even clear water is most harmful. I decided to try Vaporite. I had every one turned out of their pots and a good dusting of the powder given over the drainage. After a few days, not feeling quite satisfied, I had three or four holes bored with a piece of wire about the size of a lead pencil and about 2 inches from the stem of the plant, and these holes were filled with Vaporite. The size of the pots was 9 inches, and I am pleased to say that up to the 24th ult. I have not lost any more plants. Now we come to what, I think, is rather strange. We used loam from the same stack for our bulbs, &c.; all have done well, Freesias especially, and no ill-effects whatever were noticed. However, I shall not use loam cut from the same place again; but if I had any suspicion of eelworm in the soil I should certainly use Vaporite, and that not sparingly, mixing it well with the soil some time before potting.—A. J. Hawkes, *Hall Place Gardens, Kent.*

—— Should any of your correspondents discover any preventive against the attack of these pests, I hope they will communicate it to your paper. The cause of failure with forced Narcissi, Tulips and Hyacinths here this winter for the first time was a mystery to me until I read the letter of Mr. J. D. Pearson in your issue of the 20th ult. On examining the roots of the bulbs in question I have just discovered numbers of these small white worms. The bulbs had been potted in good loam.—G. H. N., *Banbury.*

—— Seeing in The Garden of the 20th ult. Mr. J. D. Pearson's warning to those who may have to contend with the ravages of eelworms, it may be of use to some of your readers to know how I manage to kill them and thus obtain good results from forced bulbs. I discovered them through the complete failure of some pot Hyacinths in March, 1908. They had, as in Mr. Pearson's case, eaten the white healthy roots, leaving only the skin. Since then all the soil for potting purposes must go through the process given here, as it is simply teeming with eelworms and wireworms. The latter Vaporite seems to exterminate, but not so with the eelworms. After preparing the soil (broken as fine as possible and plenty of coarse sand) I procure four bricks, two of which are placed in the stokehole fire to get red-hot; then put a barrow-load of soil on the potting-shed floor and place the red-hot bricks therein. At intervals of about a quarter of an hour I mix the soil well together, and when the bricks are cooled down replace with the other two, which meanwhile should have been put to get red-hot. The four bricks will be quite enough to make the barrow-load of soil steaming hot if attention be given to turning it. This season there has not been a single bulb go wrong and no trace of eelworms in the pots with the soil thus treated. The bulbs were supplied by Messrs. Pearson.—C. J., *Filey.*

—— I was much interested in Mr. J. Duncan Pearson's article in your issue of the 20th ult. (page 139) *re* "Forced Bulbs and Eelworms." I have been pestered with them here in nearly all my pot plants, especially Amaryllis bulbs, the base of which were literally covered with eelworms. I procured some Apterite, and then made holes in a slanting direction in each pot, into which I dropped a pinch of this preparation and then filled the holes in again with soil with good results. I have seen wireworms and earthworms come to the top of the soil a few minutes after the application. I find it a good plan to mix Apterite in the soil a few days before it is wanted for potting, as by this method I have not been troubled with eelworms or any other soil pests for some time. I have only means of trying it on a small scale, and give this information for what is is worth. I hope Mr. J. Duncan Pearson will give Apterite a trial, and if successful send an account of the result to your valuable paper for the benefit of others readers.—W. Hall, *The Yarrows, Camberley.*

The new water garden at Kew.—To replace the old, inadequate structure at the north end of the herbaceous ground at Kew, a new water garden has been constructed during the past winter. It occupies the site of the old medicinal ground to the north of museum No. 2, and consists in all of seven separate tanks. The centre tank and four corner tanks will be used for Nymphæas and other aquatic plants, while the two side ones will be used for bog plants. The centre tank has been fitted with hot-water pipes, which will enable some of the less hardy aquatics to be grown out of doors. As may be seen in the illustration, the centre tank is on a lower level than the four corner ones, and is approached by six sets of steps of four each. The dimensions of the water garden are: Over all, 104 feet by 62 feet; large tank, 71 feet by 28 feet (inside measurement); corner tanks, 24 feet by 24 feet (inside measurement); side tanks, 36 feet by 7 feet (inside measurement).



THE NEW WATER LILY GARDEN AT KEW.

The Osoberry (Nuttallia cerasiformis).—What a charming early-flowering shrub this is! and it is indeed surprising, considering how amenable it is to almost any soil and climate, that it is not more grown. It is one of the earliest plants to show signs of new life, as during midwinter it begins to push forth its pale green buds, and for some weeks it has the appearance of just breaking into flower, and when expanded, which it generally does here in March, it lasts for a considerable time. Being a North American plant, it seems perfectly proof against the severest weather we are likely to experience. It much resembles a small white Ribes when in full bloom. It produces fruit of a dark red colour about the size of a Cherry, but being dioecious it is necessary, of course, to grow both sexes to ensure this.—Edwin Beckett.

THE KITCHEN GARDEN.

THE VEGETABLE MARROW.

Its Importance in a Time of Scarcity.

THERE is every probability of a great scarcity of vegetables, owing to the severe weather which we have experienced. During the next two or three months it behoves every gardener to do his utmost to make the best provision possible. I have for many years advocated the forwarding of Vegetable Marrows under glass, either by growing them in large pots, or planting them out and trailing them up near the glass on any vacant trellises there may be in the fruit or other houses, or planting them out on mild hot-beds under portable frames. The latter plan is, unquestionably, to be strongly recommended, as not only may excellent crops be taken early from the plants under glass, but immediately it is safe to do so by removing the frames, the plants will be in full bearing, which is a great gain over those planted in the ordinary way; but the same plants will continue to bear profusely as long as open weather prevails in the autumn. Early Marrows are generally considered a great delicacy and always realise good prices in the market, and with the many improved varieties of recent introduction which lend themselves admirably to this kind of treatment, very little difficulty, when cultivated under proper conditions, will be experienced.

Raising the Plants.—Seeds should be sown singly in 3-inch pots during the present month, using a fairly light soil in a moderately dry condition. These should be raised in a gentle heat and not overwatered till the young growth appears, when they should be placed on shelves near the glass. Immediately the second leaf shows signs of development, the plants should be potted into 6-inch pots, neatly staking them at the same time. Grow on near the glass in a temperature of about 55° Fahr., and after the pots have become well filled with roots these may be placed in their permanent positions, either in houses or on the prepared beds.

Formation of the Hot-beds.—These should consist of three parts good leaves and one part long stable litter. The beds should be made about 2 feet wider all round than the frames and firmly put together, which will allow for adding fresh linings when required. The heat

should not be too great when adding the soil; just sufficient to create a gentle warmth to give the plants a good start. The soil should consist of two parts good fibrous loam, one of well-decayed leaf-soil and one also of old hot-bed or Mushroom-bed manure, to which should be added a little finely broken charcoal or burnt garden refuse. This should be placed in a ridge, thus leaving the back and front inside the frame uncovered with soil, so that any unnecessary heat may escape without doing damage to the compost. The plants should be put out during the warmest part of the day, taking care to harden them off in a cool house before doing so.

Ordinary-sized frames will generally accommodate two plants to a light. These should be well pegged down and damped over with tepid water. After about three days these should be well watered in, using slightly warmer water than the temperature in which the plants are growing. The plants will soon grow away freely, but undue forcing should be strictly guarded against. Stopping, thinning and pegging down the growths must be attended to as often as it is necessary, and the plants should be syringed daily, on fine occasions early in the afternoon, when the lights should be closed. After about a fortnight or three weeks the beds should be finally made up, using the same kind of soil.

Airing.—This requires to be done carefully, and one must use his own judgment as to how much and when to admit it. As is well known, the Vegetable Marrow is one of our most tender plants, and cold, cutting winds, essential as air is, must be guarded against. Always endeavour to tilt the lights in the opposite direction to which cold winds are blowing, and it is important that ventilation, even if only a very little, is given early, especially on bright mornings, or the condensed moisture which has been deposited during the night on the foliage will enable the sun to scorch them. It will often be found necessary to raise the frames so that the foliage does not come in contact with the glass. The lights should be well covered with mats or other suitable material during cold nights and fresh linings of fermenting material added as required. To ensure a free set it will be necessary to fertilise the fruit when in flower much in the same way as Melons. As the days lengthen and the weather becomes more favourable, air can be given much more freely, and during very mild days it will be well to remove the lights entirely, if only for a short time, and a small quantity of air be left on during the night when frost is not likely to occur. By the end of May the frames may be removed and utilised for other purposes, at the same time giving the plants a thorough mulching of a similar mixture as that advised for planting.

Regulate, thin and peg out the growths. Abundance of water should be given when in full bearing and the foliage damped over every afternoon. It will then be found that these plants will be yielding abundantly when the majority of people are putting out theirs. Fortunately, the Vegetable Marrow is not liable to be seriously injured by insect pests or diseases, and it may be grown successfully in any sunny, sheltered position. These early crops of young Marrows are always exceedingly welcome and fully repay the trouble entailed in producing them.

Varieties.—I have grown these extensively with a view to testing the majority of varieties now in commerce, and for this way of treatment I have found the best to be The Sutton, Pen-y-byd and Moore's Cream (each of the above white-skinned varieties); while Perfection, Prince Albert and Tender and True (the latter a bush variety) are excellent green-skinned sorts. The Improved Custard does remarkably well under glass, and the quality is generally much liked.

E. Beckett.

THE FRUIT GARDEN.

WHEN TO PLANT FRUIT TREES.

I WAS pleased to see the very sensible articles upon this subject on page 150 by Messrs. Lawrence and "A. D." There is such a thing as riding a hobby to death, and for years nearly every writer has said that "November is the only safe month to plant" until the general public has come to accept this as a fact, whereas it is far from the truth. To nurserymen this writing has caused endless trouble, and it is not at all uncommon to receive letters from customers by the middle of November asking if it is not too late in the season to plant, when it might almost as frequently be truthfully said to be full early. There are many sides to most questions, and some of these are apt to be overlooked in making these sweeping assertions. As "A. D." says, how about a dry autumn when the ground is so hard that it is almost impossible to lift trees without leaving a large proportion of their roots behind? and then again, we have seasons such as last year when trees are growing into November. Doubtless this is a matter of small moment when trees are lifted from one part of a garden and replanted in another; the roots are so short a time out of the ground that they have no time to become dry, and if the branches are shortened so as to remove the growing shoots and thus prevent a large amount of evaporation, the operation should be a perfect success. But how different are the conditions when an order is placed with a nurseryman, and the trees have to travel perhaps 100 miles by rail and be kept, as they frequently are, for days *en route*. With every care the small fibres dry out and many of them perish, so that the trees have to make fresh fibres, and the more active the trees are at the time of lifting the greater are their sufferings.

My contention is that the drying of the roots is one of the main drawbacks in planting, and it is a point which is more neglected by the generality of planters than any other. Nurserymen are, as a rule, wide awake to this fact, and in every well-managed establishment all trees are carefully covered with mats as soon as lifted and carted to the packing-shed and packed as speedily as possible; but I have seen Laurels lifted one day and orders sorted out from them while the remainder laid exposed on the surface of the soil until next day. Many nurserymen make a point of advising their customers to always have a trench dug out as soon as the trees arrive, to unpack the bundles and at once place the roots of the trees in the soil and cover them well up; they can then be drawn out and planted as required. If this were done we should hear less of people losing their trees; but how comparatively few planters follow this advice! If the trees arrive in good weather, they unpack them and leave them lying exposed to wind and sun for hours while they are planting. I have known an extreme case where a second consignment was sent a week after the first, and the carter found some of the first lot in a back-yard still unplanted and unprotected! Again, if the trees happen to arrive during bad weather—frost, snow or rain—how many people put the bundles aside in some outhouse and leave them for days or weeks before they do anything with them, whereas it is never impossible, with a little trouble, to get out a trench and heel them in so that the roots would be safe and recuperating from their journey.

Many nurserymen have to do the bulk of their transplanting after they have finished executing their customers' orders, and I have frequently transplanted fruit trees from one part of a nursery to another as late as the middle of April, with an average loss of one tree per thousand. Last season we did not lose one tree in two acres of transplanted pyramids; but, of course, there is the great point to be considered that the trees were on the spot and had no journey to undergo. This brings me to another point, which is, Why will not those who are compelled to plant late from circumstances over which they have no control have their trees sent on a month earlier and lay them in until they are ready to plant? If they would do this, the trees would be checked and kept back by the lifting, and they would travel at a time when the roots would have less to contend with in the way of drying winds, and also would be in a better condition to withstand anything of this kind; but no, many people seem to have a rooted objection to doing this and prefer to leave the trees in the nursery until they are ready to plant them.

Mr. Spencer Pickering, whose valuable experiments at Ridgmont are known and recognised by all, says that he finds little difference in trees planted from November 1 to April 1, provided they are on the spot and the land is fit to plant, but that he should perhaps avoid the middle of the dead season, say, January, if possible; yet nurserymen plant even then if the weather be open, and I have never seen bad results from so doing.

One more remark and I will bring these already over-long notes to an end. Most of us are agreed that it is bad practice to plant when the land is wet and sticky. Two years ago I stopped some men planting Gooseberries on strong land, which they were treading on to the roots in lumps like cold, wet plum-pudding, with cakes of mud on their boots like balling snow, and told them that I would rather pay them to be in bed than to be doing work under such conditions. The remainder of the work was finished a fortnight later, in good time and with the soil in a friable condition; but these trees never grew so well or made such good plants as those did which were planted under such, what we should call, unfavourable conditions. Mr. Pickering has had the best results from trees rammed over the roots till the soil was like mud. Truly we do not know all there is to learn about fruit tree planting yet, and do not let us make a bogey of November planting.

Lowdham. A. H. Pearson.

HINTS ON VINE CULTURE.

(Continued from page 102.)

Starting Young Vines.

It is quite natural that an amateur who has recently planted young Vines will be very anxious to see the new shoots and bunches of Grapes growing. Patience must be exercised, as it is a great mistake to either force the new growth unduly or overburden the Vines with Grapes. It is like working a young horse too soon; the strain causes a breakdown in each case, and Vines so treated require several years' careful treatment before they are capable of bearing a normal crop. If the cultivator will allow the Vines to gain all the strength possible during the first year, not cropping them at all, they will bear remarkably well afterwards—that is, they will each year bring to perfection a normal crop of fruit.

Fire-heat.—There is no necessity to heat the hot-water pipes, except to keep out late frosts and very cold winds during the night-time. Allow the buds to break slowly and naturally; then the young shoots will be strong and sturdy and there will be no check to the progress of the growth as far as the flow of sap is concerned, because it will rise early enough to give support to the new shoots after the stored-up sap has been exhausted. In instances where a forcing temperature has been maintained very early in spring (and that would be, of course, soon after the young Vines were planted), the buds have grown quickly and the shoots soon attained a length of about 6 inches; but then something seemed to go wrong. The shoots did not continue to grow, and from that stage onwards

the Vines were unsatisfactory. Of course, what was wrong was that the fire-heat had made the buds active prematurely and they had grown as long as there was any sap in the canes to support them; but when the sap was all used up there could be no further growth, and if a higher temperature had been maintained matters would have become worse. The root-action was not forward enough to replace the exhausted sap in the canes. So we see how important it is to exercise patience in the first treatment of young Vines, and so allow them to break into growth slowly and be duly supported by fresh sap from the roots. The activity of both roots and buds should be evenly balanced; if one must be before the other it should be the roots.

Assist the Buds to Break.—Syringe the canes at least twice every day until the buds have become active and the young shoots are about 1 inch long; then cease syringing, but do not forget the atmospheric moisture in the house The syringing softens the scales over the buds and so helps them to burst through, but all must be dry by sunset every night. If the days are cold and sunless, do not have much moisture in the house; if the weather be sunny and the air mild, more atmospheric moisture may be maintained, as it will be highly beneficial to the Vines. Sun-heat strengthens the growth of Vines wonderfully.

Training the Shoots.—The young shoots are very tender and they must not be tied down to the wires prematurely, also some of them may get broken off. Never mind if they do grow upwards—it is natural for them to do so; but before the points of the shoots reach the glass tie soft pieces of matting to them and gently pull them down a few inches, making the other end of the tying material secure to the wires. The main rod, or cane, must be trained about 16 inches from the roof-glass. There ought to be one or two side shoots to each Vine besides the leading shoot. The latter must be trained straight up the wires under the roof-glass and stopped when it has made a growth about 7 feet long. The side shoots must be stopped (the points pinched off) when they are about 2 feet long. The new shoots, including the leader, will be short-jointed if all are allowed to grow slowly. When the shoots are about 20 inches long they may be brought down to the wires and tied there.

G.

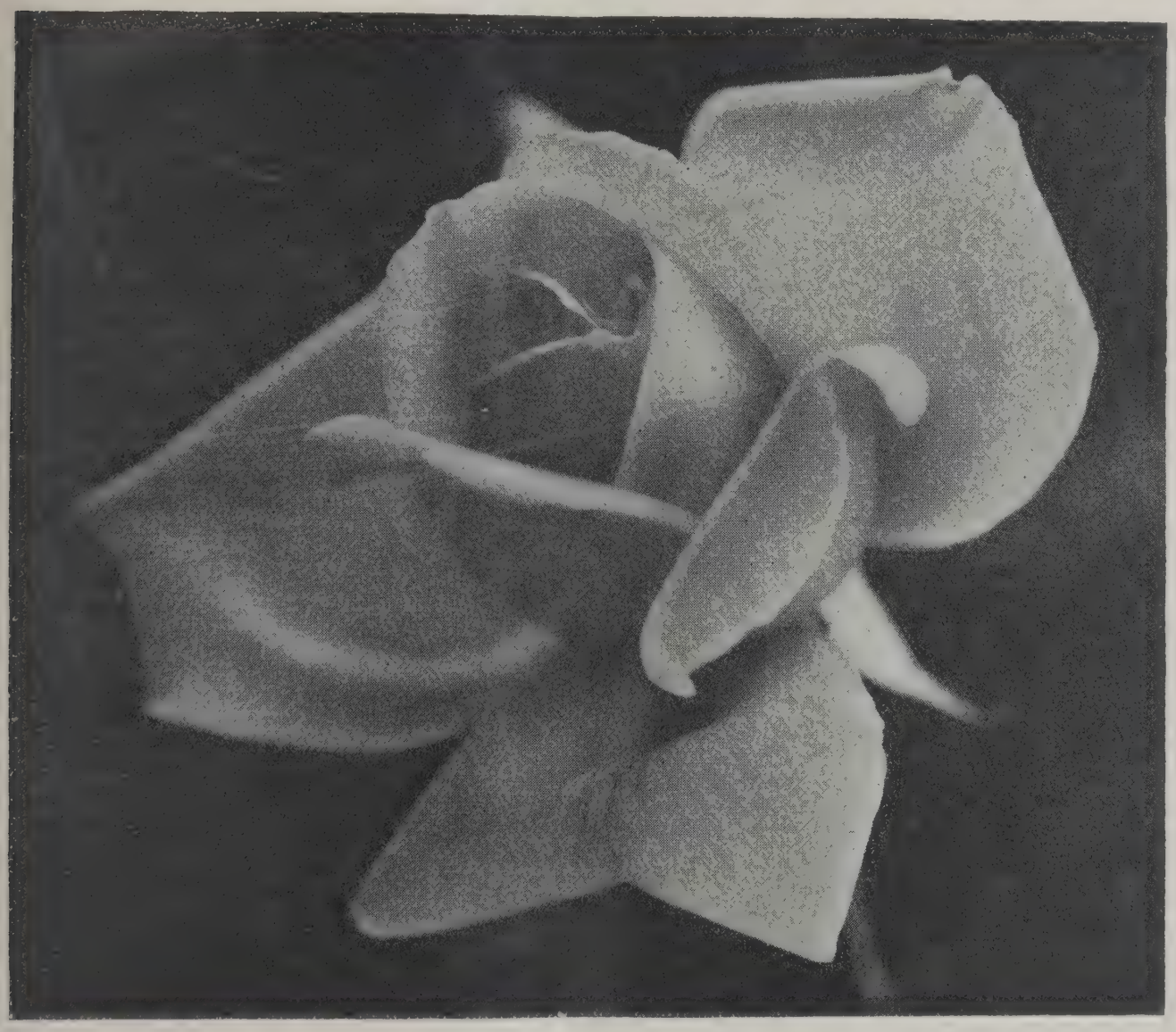
(To be continued.)

COLOURED PLATE.

PLATE 1371.

PYRETHRUM LANGPORT SCARLET.

HAPPILY the wintry weather—or at least if one may judge from the conditions existing at the time of writing—has passed, and now we welcome the spring. There is life in the garden, the woodland and the forest; but to the gardener it is a time not of mere contemplation, but of practical work. We can plant now, and the coloured plate of the beautiful new Pyrethrum Langport Scarlet brings to us thoughts of a beautiful and useful race of perennials. We well remember this flower of scarlet colouring, and when we first saw it the great work of Messrs. Kelway and Sons of Langport was in mind. Here is a Pyrethrum that brings colour to the garden and brightness to the home; it is a flower to gather, and in these days there seems a universal idea to fill the house with blossom. We are glad it is so. The Pyrethrum may be planted now with every prospect of an abundant flowering in the coming summer. It enjoys a good soil, water in a dry summer, and little else, is a most accommodating flower, and a plant that should grace every garden worthy of the name. If the plants are cut down close immediately the first flowers have faded a second crop will be produced in autumn.



ROSE MME. MELANIE SOUPERT. (*Reduced.*)

THE ROSE GARDEN.

ROSE MME. MELANIE SOUPERT.

TO see this fine Rose in its full beauty one must be up early on a cool summer morning or visit the Rose garden late in the evening, for it is one of those varieties that quickly succumb to the rays of the sun. But when caught right what grandeur of form it possesses! Just that splendid globular Magnolia-like type so precious to the exhibitor.

One could wish there were just a few more petals to give the flower greater staying power. Were it not for its vigour one would imagine Mme. Melanie Soupert originated from White Lady, so wonderfully like is it in petal and form; but I should say M. Pernet-Ducher has employed some of his lovely unnamed seedlings to produce the variety under notice. Certainly it is one of the best introductions of that very successful raiser. The colour is so delicately beautiful, viz., salmon yellow, suffused with carmine.

I notice some writers hint that Soleil d'Or was one of its parents, but I imagine this to be without foundation. M. Pernet-Ducher hybridised Mme. Melanie Soupert with a seedling of Soleil d'Or, which has resulted in producing that very distinct hybrid known as Lyon Rose; this was shown growing at the Franco-British Exhibition last year.

Where possible I would advocate planting this Rose in a bed by itself, a plan that should be adopted with all garden Roses of like distinctness; but where this is impracticable the following varieties would blend well with it: Harry Kirk, Lady Wenlock, Mme. Paul Oliver, Prince de Bulgarie, Mme. Pernet-Ducher, Mme. Jenny Gillemot and Senateur Belle, with standards as dot plants of Gustave Regis. The illustration is from a photograph taken in Messrs. Merryweather's nursery, Southwell. P.

THE SPRING PLANTING OF ROSES.

THE bad weather experienced during March has put everything behind, and Rose planting will suffer along with other subjects. But let no one imagine it is yet too late to plant Roses. We planted a lot, some thousands, as late as the middle of April last year and nothing could have succeeded better. One element towards success is to have the land ridged or trenched in advance; then as soon as the surface soil works well the plants may be planted. It is always wise to procure a stock early in February and March, before all the best plants are sold, and heel them in, taking care to well cover the roots and make them firm.

Should it not be convenient to plant until April, the plants should have been lifted and heeled in afresh. This tends to check root action and keeps the plants in a nice dormant state for transplanting when the opportunity occurs. I believe if the plants were moved at frequent intervals one might defer planting with every prospect of success until the end of April. I am, of course, referring to bush Roses, more especially the Teas, Hybrid Teas, Polyanthas and Chinas. Hybrid Perpetuals do not do very well when planted so late.

Before planting we cut the bushes back hard, even to two or three eyes, and their roots should be dipped in some good thick mud puddle. Plant them rather deeply, and if dry weather follows, apply a little water at the time and again in about a fortnight. A great point to remember in the cultivation of all spring-planted Roses is to hoe the soil frequently, and especially after every rain; but prior to the first hoeing it is advisable to make them firm about the roots by pressing the heel on each side. In order that the plants may have every chance, all flower-buds should be picked off until July; after this they may be allowed to develop, and the result will be a grand display in August and the autumn. P.

THE FLOWER GARDEN.

SWEET PEA CHAT.

SOWING SEEDS.—So much has been said and written about the advantages of sowing Sweet Peas in cold frames in the autumn or in frames or greenhouses in the spring, that amateurs are coming to fear that they will not reap satisfactory results unless they adopt one of these systems; or if they are unable to do that, it is considered imperative that seeds shall be sown before the end of March. Let me try to clear the atmosphere a little by saying that the under-glass method of growing, whether in autumn or spring, is more particularly valuable to those who desire flowers expressly for exhibition. At the same time, it must be borne in mind that practically equal results, as far as quality is concerned, accrue upon sowing out of doors in the spring, and as the principal shows take place in July, March is usually the most reliable month for sowing. For later shows, the seeds may be sown in April, and if the preparatory operations have been thoroughly carried out, there is no reason in the world why the plants should not produce grand blooms. As for growing for garden decoration—and it is good to know that everyone is not yet smitten with the show fever—then April will yield as good returns as March as a time for sowing the seeds. The open-air cultivator has three disadvantages, it is true, but none of them is insurmountable. The risks which he runs from mice, birds and slugs are rather greater than when culture under glass is followed. However, if the seeds are damped and shaken vigorously in a bag with a little powdered red lead, mice will not do serious harm; birds can certainly be kept at bay by prompt and efficient threading (I always like to see this done the moment the seeds are sown, as one is then quite safe); while persistent hunting will keep down the slugs. No matter what anyone says, let those who have not yet sown their seeds get them in at the first convenient moment when the soil and weather are favourable, for it is certain that they will not be disappointed with the results. As a matter of fact, the conditions in March this year were so peculiarly wretched that the April-sown seeds will almost catch up those sown in the previous month.

TYING AND STAKING.—This will sound more as though one were about to write of Chrysanthemums rather than Sweet Peas; tying with the former is acknowledged to be essential to success, and I am of the opinion that it is equally as important with Sweet Peas. Neither plants growing in pots nor those in the open ground ought ever to be allowed to fall over, and to prevent this twiggy sticks are advocated before the plants attain to a height of more than 4 inches. But at this stage there are no tendrils with sufficient strength to hold the plants to the supports and, therefore, tying becomes necessary. Put on a loose, secure ligature that will keep the plants upright, and all should go well. In the case of outdoor plants, which it is purposed shall be supported on wire trellises, it is wise to have the first stakes about 2 feet high out of the ground, so that the plants will not have to climb the wire in the earliest stages. For ordinary Hazel or other natural sticks the preliminary ones need only be about 1 foot high.

THINNING.—This is one of the most important details in successful Sweet Pea cultivation. Early thinning is commonly advocated; but where the seeds were sown thinly to start with, it is imperative that some judgment shall be exercised in this operation, especially as to when a start should be made. No matter how strenuously one may strive to keep the slugs at bay, there is an ever-present probability that some plants will be lost, and if we have sown thinly and thinned early, we may find that our plants are standing rather further apart than we desire, or than will give us a handsome line or clump as the case may be. In no circumstances, of course, must the importance of proper thinning be overlooked; but I would urge upon cultivators the necessity of hastening slowly, always carrying out the work in stages, notwithstanding the fact that this will involve rather more time.

SPENCER.

THE GIANT PERSIAN CYCLAMEN (SWEET-SCENTED).

POLYANTHUS PRIMROSES.

THE name Polyanthus Primrose, or Bunch Primrose, sufficiently describes the form of these flowers, and gives us, at the same time, their parentage. We are indebted to Mr. Walton for this charming race of fragrant flowers, for I understand he first raised them, many years ago, in his garden at Kingston-on-Thames. After his death his plants passed into the hands of other workers, who have in their turn, by careful selection and cross-fertilisation, gradually effected improvements in habit and colour, until we now have those lovely flowers which may be seen in the best strains of the present day. They can be easily raised from seed and are quite hardy, flourishing in almost any climate and in any soil. Only the other day I was told of some plants that had been through a Canadian winter with the thermometer several times registering 40° below zero, and they had bloomed well the following spring. They will stand a good deal in the way of drought, too, but they do not like it. Shade, or rather shelter, a good deep, rich and well-drained soil, and a somewhat moist climate are what they revel in, and it is amazing to what size and perfection they will attain under these favourable conditions. I have several times measured flowers over 2 inches across.

The plants are best raised from seed, which can be sown at any time during the spring or summer. If sown early the seedlings should flower the following spring; if, however, the seed is sown in July or August, and the little seedlings pricked out into boxes for the winter and given the protection of a cold frame, they make nice plants for putting out the following season, to bloom the second season after sowing the seed.

The plants generally produce both Primrose and Polyanthus stems. The coloured plate in THE GARDEN for August 29 last shows three stems of Polyanthus, and these flowers were cut from plants selected from among a lot of Polyanthus Primroses as having more of the true Polyanthus habit. This is a type of plant that will, I think, appeal to most people, a tall stem with large, well-formed flowers of clear bright colour, holding themselves erect and forming a compact head.

They are most effective in the border, as the flowers are thrown well above the foliage, and they are most useful for cutting. A good breadth of these plants in full bloom is a sight not easily forgotten, and their delicious scent is no small recommendation. They make splendid companions to the Daffodils, and as pot plants they are most useful. The Polyanthus Primroses are generally at their best towards the end of April, but give a few blooms through the winter in open weather. I have had a plant in full bloom in November. I do not recommend dividing the plants unless it is desired to increase any particularly fine specimen; they do not seem to recover the disturbance of their roots for two seasons after division. I do not mean that they will not flower for two years, but that they do not give quite the same quality blooms, and for the same reason it is best to plant them where they may be allowed to remain undisturbed for several years, as they are generally at their best the second and third seasons of flowering. I have had plants that have gone on to a fourth and even a fifth year producing literally a cushion of bloom in a sheltered position in good, deep soil in a shrubbery, protected from the wind, shaded from the midday sun in summer, and so able to

retain their leaves all the year round. This is a sure sign that they are in good health and in the right place: if they lose their leaves in the summer the plants have to start afresh when the season of growth comes round again, and this, no doubt, takes a lot out of them. W. A. Watts.

DAFFODIL AND TULIP NOTES.

Early Tulips in 1909.

Up to the end of March very few really good pots of early-flowering Tulips have been seen at Vincent Square. There is a general complaint that these varieties have done badly. Either they have flowered without any stem or the blooms have been small, or they have had green or burnt-looking tips to the petals. I was telling Mr. S. T. Wright of Wisley Gardens my own experience, which was as I have described above, and he told me that he had noticed similar failures in gardens that he had visited. For failures to be so common there must have been something deficient in the ripening season in Holland. I remember now that I heard last June that the leaves of some early kinds had suddenly died down before their proper time. If so, it is obvious that the bulbs would be in a half-starved state when they were lifted, and it is no surprise to find that they have not had sufficient strength to stand early forcing. My second batch, which were in flower about the 25th to the 31st ult., were certainly much better than the ones that I had had a month or six weeks previously. I think it only right to mention this in my notes, as there may be some gardeners who have been unjustly blamed for what was not their fault and for mischief which no skill or care on their part could repair.

At Vincent Square on March 23

the backwardness of the season was very much in evidence. There was not a single Daffodil exhibited that had been grown in the open. Even Mr. Dawson of Penzance had to write and say that he was unable to bring his intended exhibit. Perhaps it is as well that we should have late seasons every now and again; they serve to remind us that we must be prepared to meet the fickleness of our climate. As far as Daffodils are concerned, only a few years ago our choice of varieties for pots was exceedingly limited, or possibly I should say we severely limited ourselves in our choice. For very early work it is not very different to-day, but for later work—that is, for flowering under glass immediately before the outdoor ones come in—we have a very large choice. Messrs. Cartwright and Goodwin had a similar collection to that which they put up on the 9th ult. Anyone who wished to make a selection of what to buy for pot work in March had a splendid opportunity for making notes, because the flowers then exhibited had been grown under the exact conditions for which they would be wanted.

Salamander and Coreen are two quite new Engleheartii cupped varieties. The former has a sort of Castile coloured perianth, with a deeper shade of the same in the eye, which has a wide orange red edge. It is a large, striking flower. The latter is much smaller and has an ivory white perianth, with a rather crinkled cup faintly tinted and edged with red. There were two or three vases of the lovely Leedsii Evangeline. Mr. Cartwright told me that my description of it as a "bicolor Homespun" had "caught on." I do not think any description can convey a better idea of its general appearance than this. Seagull is a splendid thing to grow in pots; it is so very floriferous and it responds so easily to gentle heat. Glory of Leiden is a general favourite and a variety that I can strongly recommend. Castile looked more beautiful than ever. I had never seen it grown under glass before, and now I have seen it I must have a potful next year. Mrs. H. J. Veitch is a deeper-coloured Emperor, with an almost Tenby shaped perianth. Autocrat, the old soft yellow incomparabilis, is still without a rival in its own particular type. I have found out this year how well it does in pots. These and many others, such as White Lady, Sunset, Mme. de Graaff and Johnstonii Queen of Spain were all to be seen in excellent condition.

Messrs. Barr and Son had a small group that contained a fair proportion of large trumpets. They had also a collection of Darwin Tulips. The blooms were a little on the small side, but they were very fresh and clean. Landelle, Margaret and May Queen were among the best.

Messrs. R. H. Bath staged a large collection of Daffodils and Tulips grown in moss fibre. I do not think I ever saw a larger exhibit of the kind. It is a big thing to bring so many ornamental bowls all the way from Wisbech. I happened on the evening before the show to see the cases they were brought in. There were eleven 3 feet high, 1 foot 9 inches wide and 4 feet long, and three or four very large flat ones. They had travelled well, and Messrs. Bath were able to put their flowers before the public in excellent condition. Among such sorts as Emperor, Sir Watkin, Weardale Perfection, Gloria Mundi and Victoria I noticed some Poetaz (Elvira and Irene). These are just the thing for pots and bowls, and only want to be better known to be more appreciated. There were also two or three vases of a new Poeticus, Marian (cut flowers). It is a tall, robust grower, having a somewhat flat eye, with recurvus colouring. In the open it blooms between ornatus and the old Poeticus. I believe a great many admired it very much.

Messrs. R. Sydenham, Limited, among other things had a few very nice flowers of Glitter. Judging from their exhibit, I should call it a good thing for pots. It may be described as a small, round Barri conspicuus, with a flat, overlapping perianth Joseph Jacob.

THE ORDINARY PERSIAN CYCLAMEN AT READING.

THE GREENHOUSE.

THE SWEET-SCENTED CYCLAMEN.

Knowing the great interest I take in this flower, the Editor has asked for a few notes to accompany some photographs of Messrs. Sutton's Cyclamen. It has always been a matter of surprise that, in the great improvement of the Cyclamen in form, colour and habit, one of its principal charms, the scent, should have practically disappeared. To find out what a former generation of gardeners thought of C. persicum, I have turned up some old magazines, and in the "Floricultural Cabinet" of 1849, "Amicus" begins an article on its culture thus: "Several papers relative to the culture of this lovely *sweet-scented* flower have already appeared in this magazine, but I think it cannot too often be brought before the notice of all lovers of *fragrant* flowers," &c. So that sixty years ago it evidently ranked with the best as regards perfume. This, by the way, is not unlike that of a Freesia, and the mixed scent of that flower and the Cyclamen is most delicious.

In another work of, I think, 1858, it is mentioned that *some* of the C. persicum seedlings were sweet, but that it was an uncertain quality. No doubt the "improving" process had commenced. In the *Gardener's Assistant* of 1877 there is a fine plate (coloured) of improved varieties grown by Mr. Little of Twickenham; but here not a word is said as to any fragrant qualities. I may say that the blooms figured are of most exquisite shape, none of the butterfly type, now so fashionable, being visible. I have, myself, always set my face against this fancy type and endeavoured to keep the good old shape as true as possible, but it is a difficult matter and has somewhat hindered the progress of the scented strain, some of which I am pleased to think figure in the illustration of Messrs. Sutton's flowers, and no doubt under their skilful treatment an advance will soon be made.

As far as I have got at present, I have a rosy pink flower, very constant and true from seed, several varieties of white with pink or rosy base, also a giant white scarcely fixed as yet, and a bright claret. So far I have had no success with the salmon or the very dark flowers or Vulcan.

A word as to the original flower that I used to restore the lost perfume may be interesting. I called at a village inn one day and at once "winded" a sweet-scented Cyclamen. I found in the window a miserable plant with two or three scraggy blooms, as far as shape was concerned, but evidently one of the old-fashioned C. persicum. I begged for seeds, which after a year or two produced plants which furnished pollen to fertilise some of my best flowers, and after some twelve years of crossing and selection I have got my present strain. My gardener described his system of cultivation some two or three years ago in these columns. I need only say that it is up-to-date in most particulars.

Sulhampstead. J. T. Strange.

CALCEOLARIA BURBIDGEI.

Apart from its value as a summer-flowering subject for the flower garden, this hybrid Calceolaria is a useful plant in the greenhouse in March and April, when yellow flowers other than Narcissi are none too plentiful. The upper smaller lip is a much more pronounced and deeper yellow than the lower, which is quite pale in tint, yet beautiful in its shading. A slight bronze marking is visible in the throat. E. M.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN. — The principal work in this department will be the sowing of various hardy annuals, for particulars of which see last week's calendar. In addition to the kinds mentioned there the following are showy and easily grown: Virginian Stock, Bartonia aurea, Eschscholtzias (both yellow and ruby coloured varieties), Erysimum perowskianum (rich orange yellow flowers, somewhat resembling small Wallflowers), Nigella Miss Jekyll, Godetias and Clarkias of various colours, Nemophila insignis (should not be sown where cats are troublesome), Helichrysum (Everlasting Flower), Candytuft (both white and rose coloured varieties), Phacelia campanularia, Chrysanthemum coronaria, Larkspurs of various colours and forms, Lupinus nanus and the various Tom Thumb and climbing Nasturtiums. The last named, however, should not be sown until the end of the month. The pruning of Roses should now be completed as soon as possible, full particulars of which were given and illustrated in the issue for the 20th ult. Early flowering Chrysanthemums may now have attention where an increase of stock is required. I know many growers advocate taking cuttings in February, but not every amateur has the convenience to do this. Old stools now should have strong young shoots several inches long, and these can usually be detached, each with a few roots. If such pieces are inserted at once in good, moderately rich soil, they will grow away very quickly. When 1 foot high pinch out the top of each, and excellent plants will be formed by the autumn.

Vegetable Garden.—Many amateurs possess a cold frame and likewise a partiality for early French Beans. A few seeds sown in 4½-inch pots now (two seeds in each pot) and stood in the cold frame will provide plants for putting out as soon as all danger of frosts is over, and pickings from these will be available some time before those sown outdoors are ready. Where pots are not available, turves 4 inches square may be used, placing two seeds in each. Failing either sow in 3-inch deep boxes, or even in soil placed in the bottom of the frame, but in such cases transplanting is, of course, more difficult. Use good fibrous loam of a rather sandy character, and give abundance of air as soon as the seedlings are up, protection from frost being all that is necessary. A dwarf, compact-growing variety is best for this early work. Sow more Radishes and Lettuces to follow the early crops. Autumn-sown Lettuce, where they have survived, will now be growing away freely, and about half a teaspoonful of finely crushed nitrate of soda sprinkled round each and lightly hoed in will hasten the formation of crisp, green leaves.

1.—A WELL-ROOTED ASPIDISTRA THAT NEEDS REPOTTING.

Fruit Garden.—During dry weather much good will be done by lightly hoeing and stirring the soil between all kinds of fruit trees. Where this was turned up rough during the winter months it will break down finely now, in which condition it does not allow moisture to escape very rapidly. Any newly planted standard trees that have not already been staked must have attention in this direction if exposed to strong winds, otherwise they will be prevented from rooting freely into the new soil.

Greenhouse and Frames.—Cuttings of the best Zonal Pelargoniums (Geraniums) may now be made and inserted in rather sandy soil. If stood in a warm corner of the greenhouse and shaded from very bright sunshine they will quickly root, and if grown on through the summer and all flower-buds are rigorously pinched out they will come in splendidly for flowering in the late autumn and winter. Seedlings of all kinds must be pricked off or potted up as they become large enough, any neglect in this respect having to be paid for dearly later on. Rooted cuttings of Dahlias may soon go into the cold frames, particularly if the weather is bright and warm, as it is necessary to encourage growth of a hard and sturdy character. Runners from Violets should be taken and planted in a cool but open position outdoors, allowing a distance of 12 inches between the plants. H.

REPOTTING AND DIVIDING THE ASPIDISTRA.

THE more generally grown Aspidistras are those of Chinese origin, and are known respectively as Aspidistra lurida and A. l. variegata. The former is the well-known plant with green leaves, and the latter the variety possessing green leaves striped pale yellow or white—hence the term variegata. There are no more popular plants for the dwelling-house than the subjects under notice, their common English name being Parlour Palm.

The Parlour Palm is a plant that takes most kindly to almost any position in the rooms of our homes, and resists, apparently with comparative ease, the injurious effects of gas and impure air. As a matter of fact, it is one of the few plants that can be recommended for beautifying the rooms where gas is burnt day after day for many months, a weekly sponging of the leaves with tepid water sufficing to remove all accumulations of dirt and impure matter and to maintain the plant in a healthy condition.

Carelessness in regard to the question of watering is a common source of failure with this subject. In some cases a too generous supply of water, where the plants have been badly potted up, causes the soil to become sodden and sour, and a falling-off in the vigour of their

2.—PORTIONS OF A DIVIDED PLANT SHOWING THE RHIZOMES OR UNDERGROUND STEMS.

growth ensues as a consequence. On the other hand, many plants suffer from the lack of a sufficient supply of water from time to time. All too frequently the ornamental vases or pots in which the plants are stood are not inspected so often as they should be; the soil, therefore, becomes dry, and for this reason the plants begin to deteriorate and sometimes fail altogether.

As an illustration of a plant in robust condition, we have portrayed in Fig. 1 a plant shaken out of its pot, revealing the strong, vigorous roots in abundance, the soil being almost exclusively used up in the course of their growth. To allow a plant to remain in this condition for any considerable length of time could hardly be regarded as promoting its well-being. We know full well that by the application of manure water it is possible to make up for the want of soil in the pot; but a beginner could hardly appreciate this so well as an experienced grower. This, therefore, points to the need of repotting or division of the roots, whichever is more convenient.

The repotting and dividing of the Aspidistra should be carried out during April. It is well to remember that the shifts into pots of larger size should not be too extreme; for instance, should it be desired to transfer the plant as a whole, one in a pot 4½ inches in diameter should be repotted into one measuring 6 inches; 6 inches into 8 inches; 8 inches into 10 inches, and so on.

Should the grower prefer to divide his Aspidistra and thus make several plants of one old specimen, he may with comparative ease divide it up into several pieces such as are represented in Fig. 2. A plant in a 6-inch pot will sometimes make three or four suitable pieces, while a large plant will divide into numerous sections, each capable of developing into a useful plant in the course of a season's growth. The rhizomes or underground stems divide quite easily; but should there be in some cases too great an accumulation of these, it may be necessary to use a sharp knife to sever them. Keep those of a size together, grouping each set so that they may be potted up in a series of the same size.

A suitable soil for repotting should comprise two parts of good fibrous loam, one part of leaf-mould, and coarse silver sand or clean road grit added in sufficient quantity to make the compost porous. Some growers prefer to use peat instead of leaf-mould, but I prefer the compost made up as advised above. Fig. 3 represents a divided plant a month or two after division and repotting. Careful observation will reveal the vigorous character of the new growths, a good indication of the possibilities of the plant in the not distant future. It is important to remember that the underground stems or rhizomes should not be embedded too deeply. There is a tendency when they are buried too deeply for the young leaves

to split, and this is, of course, a serious disfigurement. In this instance the rhizomes are just slightly covered.

A good illustration of a perfectly healthy plant growing successfully in a 6-inch pot is shown in Fig. 4. For so small a pot the number of leaves must be regarded as very satisfactory, showing what devotion to the plant's well-being will yield when consistently carried out. It is one of several taken from a living-room, where the plants play a not unimportant part in its embellishment. In growing the variegated form it is well not to over-pot the plants, as a less free root-run has the effect of causing greater variegation. Much of the variegation is lost by too frequent repotting. D. B. C.

HOW TO TREAT FORCED BULBS.

Forced bulbs are generally regarded as worthless by inexperienced persons; but there are exceptions. I know that many amateurs think it is quite possible to again force the bulbs and get a good return of blossom from them. Bulbs growing in the open borders continue to flower very satisfactory year after year; but it must be borne in mind that these bulbs are never unduly excited into growth—they grow and blossom naturally—whereas when forced they are unduly excited into growth and considerably weakened thereby.

Now I think it is a great waste of good material and decidedly bad policy to discard all forced bulbs. I grant that they are considerably weakened by forcing, but it is the bad management afterwards that is responsible for their entire uselessness. Directly the bulbs have finished flowering, or the flowers have been cut, the bulbs are put on one side and rarely attended to afterwards. This is a mistake. Place the

3.—PORTION OF A DIVIDED PLANT AFTER REPOTTING. NOTE THE NEW LEAVES THAT ARE IN COURSE OF DEVELOPMENT.

bulbs in a frame or similar structure after the flowers have been used, and gradually harden and ripen them. All water must not be withheld at once; this should be gradually lessened. Then when the bulbs are hardened, and the foliage attached to them has matured as naturally as possible, they must be planted in borders where they can be left undisturbed for several years.

I like to plant them in groups of Hyacinths, Tulips, Narcissi, Jonquils, Croci, &c., separately, and having done so for many years I find that these clumps of blossom make the borders look quite gay, and when cut flowers are required it is not a difficult matter to soon fill a basket with them. Of course, the individual flowers are smaller in most cases than those forced for the first time, but they possess a beauty, a great beauty, all their own. Shamrock.

POTTING ROSES.

Much has been written from time to time upon pot Roses, but few writers appear to give a short and simple account of how to pot them. I am a believer in frequent potting of Roses. They are gross feeders and need more fresh soil than the majority of plants. Artificial food has a tendency to make the soil sour if used freely; so, too, does liquid or animal manure, and I have had the best success by more frequent repotting than many practise. It is not necessary to afford a large shift if we remove as much as possible of the older compost without unduly disturbing the roots. To a great extent this depends upon whether the plants are in full growth or almost dormant. All of us have noted how quickly Roses make new roots when laid in fresh soil, and I endeavour to encourage these by frequent shiftings.

Firmness in potting is not considered so much as it should be. If the soil is loose around the bole of the plant the water percolates too quickly to afford the required moisture, except to the new soil, and this does not need it; in fact, it is better without. For this reason we make a practice of well soaking the roots before repotting. The question of compost is important. By far the best is a turfy loam with a tendency to stiffness. Any manure that is added should be thoroughly decayed. Cow-manure is excellent. After trying a good many artificial manures in various forms and mixtures, I have ceased to use them in potting compost with the exception of crushed bones. Where half-inch or quarter-inch bones are used, little sand or other grit is needed. I also find half-inch bones a good thing to put over the crocksherds. One good crock over each hole with a few bones is all that is required, but it is necessary to do the work in a thorough manner, otherwise good results cannot be expected. Attention to all the above-mentioned details will ensure success with Roses grown in pots. A. P.

THE TOWN GARDEN.

London Pride.—This plant (Saxifraga umbrosa) is one of the most useful for town gardens. Where a number of trees with their spreading branches block out nearly half the daylight from the borders beneath them, it is a difficult matter to furnish such borders with flowering plants. Ferns, of course, may be very successfully grown, but blossoms as well as foliage are needed in the majority of cases. A few flowers even will grow in the gloomy corners, but not one will thrive as satisfactorily as London Pride. It is a plant that will grow freely in almost any part of the garden, but beneath the trees the stems are longer and the sprays of tiny flowers more feathery, so that the plant is a success in every way. For cutting and placing in vases in the dwelling-rooms the spikes of blossom are exquisite. Common garden soil will be quite suitable for these plants, as they are very hardy and increase in number rapidly, but like many other kinds they are vastly improved by careful cultivation. If the ground be deeply dug and some old rotted manure, a small quantity of old mortar rubble, and also leaf-soil are mixed with it before the plants are put in, the latter will make splendid growth. For edgings to borders as clumps in the latter, and for rockeries London Pride is equally suitable.

Rockeries.—The beautifully curved necks of the young fronds of several kinds of Ferns are now gradually unfolding, and the body of each will very soon be fully formed. Advantage must be taken of the first opportunity now to get all Fern specimens planted in the rockeries. Another general cleaning of the rockery must also take place, as a neglected rockery gives an appearance of untidiness to the whole of the garden. Snowdrops, Crocuses and other bulbs ought to be carefully guarded against attacks of insect pests and mice in the rockeries, and

4.—A GOOD AND WELL-GROWN SPECIMEN.

where additional compost seems to be needed, it should be placed in position forthwith. The soil gradually falls away from the roots of some rockery plants, and, of course, it is advisable to replace it at the most convenient time.

Carnations.—Although some owners of town gardens may not be able to grow the Malmaison and Tree Carnations owing to lack of suitable accommodation, they need not deprive themselves altogether of these lovely flowers. One small bed of border Carnations will give heaps of pleasure. There are some delightfully fragrant varieties in this section and many that may be easily grown in the town garden. The present is a good time to put out the plants. If purchased, select strong, well-rooted layers which have been wintered under cool conditions. The following are good varieties: White, Albion, Trojan, Mrs. Muir, Bookham Clove and Mrs. Eric Hambro; pink, Raby Castle (this is one of the most hardy of all border Carnations and blossoms during a longer period than any other), Duchess of Fife, Leander and Miss Willmott; apricot, Benbow, Midas, Copperhead, Mrs. Reynolds Hole and Goldfinder; rose, Mona, Irene Vaughan, Julia Neilson and Cupid; yellow, The Pilgrim, Germania, Cecilia and Miss A. Campbell; crimson, Old Clove, Helen, Countess of Radnor, Uriah Pike and Mephisto; white grounds, Redbraes, Alice Ayres and The Nizam; yellow grounds, Childe Harold, Lauzan, Carmen Sylva and Othello; scarlet, Isinglass, H. J. Cutbush, Hayes Scarlet and Roy Morris; fancies, Yolande, Cardinal Wolsey, Artemis, Monarch and Liberté. The soil must be deeply dug and well enriched with manure, but the manure must be mixed evenly with the soil below the roots of the young plants, as it is not desirable that the roots should come in contact with the manure before the plants have become established in their flowering quarters. As the flower-stems form, the roots will have found the manured portion of the soil, and from this time onwards until the flowering period is over, and just when the plants need stimulating, they will receive due support.

Roses.—Finish the necessary pruning of all Rose trees as soon as possible. The buds are now making rapid growth, and as much wood and bud growth must be cut away, it is advisable to prevent the weakening of the plants as much as possible. Avon.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Fruits Under Glass.

PEACH HOUSES.—Persevere with the disbudding of Peach trees and attend to the tying down of all young shoots that will be wanted for filling up space and for fruiting next year. Syringe twice daily on all favourable occasions and maintain a gentle growing atmosphere. Do not hurry those trees which have just set their fruits, but trees whose fruits are more advanced may be shut up early in the afternoon after they have been syringed. Keep a night temperature of 55° to 58°, but when the fruits have passed their stoning period a higher temperature can be afforded with safety. When thinning the fruits always, so far as possible, retain the best-placed Peaches or Nectarines on the upper side of the trellis, and those of uniform size, and do not allow the trees to carry more fruits than they can well finish. One to 10 inches is ample for the larger-sized varieties. Be very watchful with trees growing in pots and small borders, taking great care not to allow the roots to suffer from want of moisture and feeding. When syringing see that every branch and shoot is well done.

Cherries.—Where these are grown in pots they should not be unduly forced until they have stoned; a safe temperature will be about 55° by night. Give plenty of air during bright weather and fumigate should green and black aphis put in an appearance, or syringe with Quassia Extract, but not after the fruits have finished stoning. Attend well to the watering and feeding till the fruits begin to colour.

Plants under Glass.

Stove Plants.—Many of these will now be growing apace. Keep the atmosphere moist and shade lightly when the weather is bright, and as the external rise of temperature increases use less fire-heat. Attend to the young seedlings of Gloxinias, pricking them off as soon as they are large enough. Propagate more Coleuses where such are wanted in small stages of growth. Feed Gardenia plants with a little Clay's Fertilizer or other suitable manure, giving a little in a rather weak state once or twice weekly, and syringe the plants well during bright weather.

Propagation.—For maintaining a healthy stock of many kinds of flowering plants, propagation is a matter of the utmost importance. Many plants may be raised from cuttings at this season of the year, which, with careful treatment, will soon develop into useful specimens.

Tuberous-rooted Begonias. — These must be given liberal treatment if large plants and blooms are required. Use a rather rich soil, with enough grit to keep it sweet. Good loam, dried cow-manure and leaf-mould should be employed for strong tubers. These grow better with cool and rather moist treatment.

Calceolarias.—These will now be growing freely, and the pots in which the plants are intended to bloom will be filled with roots. A little weak manure water will be helpful in assisting the plants to maintain a vigorous appearance. Keep the plants cool and check green aphis.

H. Markham.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

Conservatory and Greenhouse.

Roof Climbers.—Disbud these where necessary and tie out the growths before they become entwined. Syringe Roses or other plants that have been severely pruned to encourage fresh growth; but avoid as far as possible damping flowering plants beneath them. Give liberal supplies of water to the roots as the plants advance, and any exhausted through age or by profuse flowering in previous years would be benefited by occasional applications of liquid or artificial manures. Fumigate to destroy aphis, and apply sulphur to Rose foliage on the first appearance of mildew.

Pot Plants.—Primulas, Cyclamens and Cinerarias are now approaching their most attractive stage, hence the plants and their environment should be kept as tidy as possible. Frequent changes in the style of arrangement should be carried out; the grouping system rather than undue co-mingling of species and varieties is most likely to meet with appreciation. Calceolarias for succession should be finally potted and afterwards placed in a pit near the glass upon a bed of soil or ashes, which will lessen the necessity for watering to a great extent. Camellias in flower require close attention as regards watering. If healthy at the roots but sparsely furnished with branches, the plants may be headed back, and if given the shade and warmth pertaining to an early vinery, growths will soon emerge from where severed.

Stove Plants.—With fast lengthening days and greater warmth syringing may be more freely indulged in, which, while inducing growth, will also keep insects in check. Alocasias, Caladiums, Gloxinias and many other fine or woolly foliaged plants should never be syringed overhead, or disfigurement will ensue; the pots, stages, stems or even the under-sides of the leaves may be treated in this way, thus providing humidity sufficient for the well-doing of the plants. Cuttings of all kinds required should be inserted as fast as convenient, including a batch of Begonia Gloire de Lorraine for late flowering. If cuttings are scarce, some of the smaller of the flowered plants may be shaken out and repotted, and be placed in a brisk heat until growth commences. Begonia seedlings are best pricked off as soon as possible to prevent loss from damping.

Vegetables Under Glass.

Cucumbers growing rapidly require frequent stopping, and some of the weaker shoots may be removed to prevent overcrowding. Setting the blooms at midday, though not absolutely necessary, is safe practice.

Beans may be sown from time to time according to demand and stage room, keeping to a quick-maturing variety, such as Sutton's Forcing, for pot work or beds in pits. For planting out in cold frames when bedding plants are removed, sowings in 4-inch pots of Ne Plus Ultra and Canadian Wonder would in due course prove very useful.

Vegetable Garden.

Cauliflowers sheltered through the winter or others raised from seed in spring and properly hardened may now be planted upon a well-sheltered border. Some form of protection in case of frost would be helpful.

Asparagus Plantations may be put in order. Long established plants would benefit from a dressing of kainit and superphosphate in equal parts, applied at the rate of 4lb. per square rod and raked in. Planting of seedlings is best done when the shoots appear above ground, and expedition in the work, so that the roots do not get dry, is essential to success. The soil, having been well manured and deeply worked, may be marked out in beds 4 feet wide, with 2 feet alleys between; each bed will thus contain three rows of plants. Planting may also be done in lines 30 inches apart, especially upon a well-drained site. A mixture of very sandy soil should be prepared and a small quantity be placed about the roots of each plant.

Peas.—Sow for succession as previous sowings appear above ground, dress with soot as a deterrent to slugs and apply stakes when the plants are a few inches in height.

Vegetable Marrows.—Sow a few seeds of a small-growing sort, such as Pen-y-byd, for planting in frames.

James Day.
(Gardener to the Earl of Galloway.)
Galloway House, Garlieston, Wigtownshire.

THE ECKFORD SWEET PEAS.

IN every quarter of the globe where the now deservedly popular Sweet Pea is grown the name of Eckford is known, and in the United Kingdom it would be difficult indeed to find even a hamlet where some of Mr. Eckford's Sweet Peas have not been cultivated. All who love these flowers are, or should be, fully aware of the wonderful pioneer work that the late Henry Eckford did among this fragrant and graceful occupant of our gardens, and the remarkable improvements that resulted from his labours.

All this, however, is now historical, and practical men and women of the gardening world will probably evince a greater interest in the present doings of this world-famous firm. A worthy successor to a splendid father Mr. J. S. Eckford has proved to be, and by personal attention to every branch of the work he has, even in these strenuous times, kept the business thoroughly up-to-date in every respect.

His seed farms at Wem, a charming old-world village in Shropshire, may be regarded as the home of the modern Sweet Pea, and many acres of pedigree stocks are grown there and in the immediate vicinity annually for seed purposes. So rapidly, however, has the demand for Eckford's seeds increased that he has been obliged to secure a farm in the famous seed-growing county of Essex, where last year something like sixty acres of Sweet Peas were grown. The ordinary grower of Sweet Peas has but a poor idea of the vast amount of attention and labour that has to be expended on Sweet Peas grown for seed, nor have we here room to go into details; but on every occasion when we have been fortunate enough to visit Mr Eckford's farms we have been fully convinced that all that is humanly possible is done to ensure the best and truest stocks only. The healthiest plants only are retained, and should one be noticed (and they are closely looked for) that is not absolutely true, it is at once uprooted and destroyed. Then again, every new variety raised by Mr. Eckford is thoroughly tested, so that buyers of novelties from Wem may rely on them coming true. Three new ones raised there and put on the market this year for the first time are: Annie B. Gilroy, a charming cerise self which, in addition to its beauty in natural light, is particularly effective under artificial illumination; Dodwell F. Browne, a beautiful large waved scarlet crimson variety; and Mrs. Charles Masters, a beautiful bicolor, with rosy salmon standard and rich cream wings.

Those who have noticed our advertisement pages during this spring will have observed that Mr. Eckford does not devote all his energies to Sweet Peas, and in reality is almost as famous for culinary Peas. Never shall we forget the trial rows of these seen at Wem; the robust haulm was simply covered from bottom to top with luscious green pods that really made one's mouth water—and such pods, too!—pods that would make an ordinary exhibitor open his eyes and rejoice the heart of the most fastidious epicure. An internal inspection of many of these pods revealed the fact that they were not merely bags of wind, but rather cases filled from heel to apex with large, deep green, evenly formed Peas.

In addition to the Pea family, all other kinds of vegetable and flower seeds are very extensively grown by Mr. Eckford, and we advise all our readers who have not yet seen his descriptive catalogue to write for a free copy at once.

MESSRS. CARTER & CO.'S CHINESE PRIMULAS.

THE Chinese Primula has for many years been a great favourite in our greenhouses during the early spring months, and although we now have many other plants, such as Daffodils, Tulips, Hyacinths and various forced shrubs that give us their flowers at this season, the beautiful and curiously fragrant Chinese Primula still holds its high position, chiefly owing to the labours of the various seed firms who specialise in this plant and who have done so much to improve it in every respect, and among the foremost of these must rank Messrs. Carter and Co., the well-known seedsmen of High Holborn.

It is safe to say that the ordinary cultivator of these charming plants has at the most but a faint idea of the vast amount of labour, time and, above all, scientific knowledge expended on the raising of new varieties, and even when a variety is obtained and fixed, the procuration of good seed is a task that calls for much intelligent fore-thought and care. Not only are varieties now in existence that possess colours which a decade or two ago were not even thought of, but the plants are more robust and floriferous and the flowers of better form, so that advance has been made in all directions.

We recently had the pleasure of visiting Messrs. Carter's nurseries at Forest Hill, where the pedigree stocks of Primulas were being grown for seed, and a most brilliant yet refined panorama of colour was presented to us. The firm's enthusiastic manager has a keen eye for colour and artistic effect, and his arrangement of these seed Primulas proved that it is possible to combine the artistic with the practical. Whites, scarlets, crimsons, blues, salmons, pinks, coral pinks, magentas, mauves and other colour shades were massed separately, one following the other in such order as to give not the slightest offence to the eye. Then there is the variation in colour and form of the foliage, a feature of Chinese Primulas not very widely known, and last but not least is the peculiar fragrance given off by the plants, a fragrance that we have long had a liking for. To get healthy progeny it is essential to have healthy parents, and the plants seen at Forest Hill were strong and healthy enough to please the most fastidious critic; from 15,000 to 16,000 were inspected.

In the large-flowered section, which is a favourite with many, the good things were so numerous that we can only undertake to name a few of the best. Holborn Coral is a most charming variety, with large, rich coral-pink flowers with yellow eyes. It is remarkably floriferous, and the blooms are borne well above the foliage. King Edward is a highly fringed, pure white sort, with large, dark green foliage. Giant White is a late-flowering variety, with immense extra pure blossoms. Holborn Salmon is one we appreciated very much, the large salmon pink flowers being very pleasing. As it is late it forms a splendid companion to Giant White. Holborn Crested is a new crested variety, the large flowers being of rich carmine rose hue, and very warm on a dull winter day. The Duchess is too well known to need any description here; it will suffice if we say that Messrs. Carter's strain is an exceedingly good one in every respect. Bouquet is a unique variety, which is most appropriately named, the truss of large, pure white flowers forming a perfect bouquet owing to the ring of small leaves at the base of the petioles. In addition, it forms an ideal specimen plant and comes quite true from seed, and no greenhouse should be without it. Holborn Scarlet, Orange King, Holborn Blue and True Blue are other grand sorts in this section.

Double-flowered sorts find favour with many growers, and Messrs. Carter have a grand selection of these. Princess of Wales, white, with carmine flake; Double Crimson, very rich and free; Lilac Queen, very large flowers; Vivid, deep rich carmine; Snowflake, white, slightly tinged pink; and Prince of Wales, large salmon pink, were some of the best that we saw.

Among the elegant Star Primulas we noticed some delightful colours, some that strongly appealed to us being Stellata Pink, S. Salmon, S. Crimson, S. White and S. Carmine, a new variety with very large bright flowers and chocolate-coloured foliage and stems, and a unique and good acquisition.

In addition to the Primulas we inspected large stocks of Cinerarias, Calceolarias and Streptocarpi, all of which were the picture of health and gave promise of fine crops of flowers later on.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Flowers for May (*C. D.*).—For a reliable display in May for your district nothing could be better than the Cottage, May-flowering or Darwin Tulips, but, of course, such things require to be planted in the September or October previous, and are now impossible. A bed of scarlet Tulips having a groundwork of double white Arabis would be most effective, or you could plant Aubrietias, Daffodils, Forget-me-nots, Daisies and Polyanthuses; indeed, this latter set, by omitting the Daffodils, would give you the best possible display you could have in so short a time, though even these would naturally lose greatly in effect owing to the recent disturbance.

Begonias for bedding (*C. E. J.*).—The Begonias to which you refer are those of the B. semperflorens type, all of which are small flowered, dwarf growing and free. A few of the best for bedding purposes are B. s. Anna Regina, deep rose; B. s. atropurpurea, orange carmine, glossy red foliage; B. s. a. compacta, which is only 4 inches or 5 inches in height; and B. s. Zulu King, stems and leafage of a dark maroon-red and flowers of scarlet hue. Other very dwarf Begonias with much larger flowers are Major Hope, Lafayette and Triomphe de Lorraine. You should write to Messrs. James Veitch and Sons, Chelsea; to Messrs. Cannell and Sons, Swanley; or to Messrs. Sutton and Sons, Reading, either of which would be able to supply what you require.

Violets diseased (*E. C. Crichton*).—The leaves sent are affected by the fungus known as Urocystis Violæ, which is exceedingly prevalent this year. All you can do is to pick off and burn all the affected leaves, ventilate the frame freely and continuously, and avoid much wetting overhead at the present time.

Sweet Pea for association with Golden Elder (*H.*).—You could not easily get a finer variety for this purpose than King Edward VII. The deep crimson flowers are profusely borne on healthy, vigorous plants, and the colours harmonise grandly. As an annual for placing between the clumps Godetia Lady Albemarle would suit admirably. In no case should the annuals be nearer than 3 feet to the Elders. In order to ensure the brightest colouring in the latter it is necessary to cut hard back each season, as the young shoots are far more brilliant in hue than the old ones. Plants which are growing vigorously and are in a satisfactory condition do not demand special feeding. Please make your question *re* manuring more explicit.

ROSE GARDEN.

Weeping Roses in tubs (*Tyrone*).—We consider that the tubs you mention would be large enough for, say, three or four years, but the trees would ultimately require more root space. Although you say you experience less heat in your part of Ireland than we do in England, yet we fear you would have some difficulty in establishing trees in tubs at this late season of the year unless they have previously been grown in pots. In order to meet with success, the trees should be put into the tubs in October, and then placed in a sheltered position with some protection around the tubs to ward off frost and also drought. Here they should remain until May or June, when they could safely be placed on the steps that you require them for. If you decide to run the risk and place the tubs on the steps at once, we should advise you to shield the tubs from bright sunshine with paper or similar material, so as to prevent a too rapid drying of the soil, as it is detrimental to a healthy root action to be obliged to supply much water to newly potted or tubbed plants.

Manuring Roses (*E. V.*).—It would have been best if you could have had some good farmyard manure dug in; but as you say this cannot be done at all conveniently, we advise you to give the beds a dressing of bone-meal at once. About two handfuls per plant would be a fair supply, scattering it well about the soil and hoeing it in at once or lightly forking it under the soil, taking care not to injure surface roots. Most of the large Rose-growers who advertise in our columns supply a Rose food of their own manufacture, and these are good fertilisers and easy of application. Should you elect to give the plants bone-meal now, you could give them liquid manure during May and June, taking care to see that the soil is moist before applying the liquid. Should we have a dry spell of weather about that time, water the plants the day before with plain water. A handy liquid manure is made with guano at the rate of 1oz. to a gallon of water, applied about once in ten days. The plants may have about a gallon each. A good useful manure to be applied at once is made up as follows: 12lb. of superphosphate of lime, 10lb. of kainit and 1lb. of sulphate of iron. Well mix and apply half a pound to a square yard, well hoeing it in. A liquid manure made from cow-manure and soot could follow this in May and June.

Roses for hedge (*J. B.*).—We think in your case the hedge should consist of early and late blooming Roses; then, if planted alternately, you would have an effective display from June to October. As the varieties we name herewith are mostly vigorous and tree-flowering, we think a distance apart of 2½ feet to 3 feet would be about right. It is advisable to give the Roses some support, for as a rule the growths are pruned back very little the first year, and some of them would be too slender to support themselves. A rustic woodwork arrangement looks nice, but if this is impossible, then two or three stout wires stretched along the length of the hedge, and supported with Oak posts at intervals of 5 yards or 6 yards, would be the best. Spread out the growths, but do not tie them too rigidly. A Rose hedge looks best when it is not too formally trained, and if the growths arch over somewhat they will bloom from bottom to top. We name below a dozen summer-flowering sorts and a dozen that will bloom in summer and autumn. If you have two of a sort we advise you to distribute them as much as possible. Summer-flowering: Flora, Félicité Perpétue, Bennett's Seedling, Blairi No. 2, Carmine Pillar, Una, Anne of Geierstein, Lady Penzance, Crimson Rambler, Electra, Blush Rambler and Tausendschön. Summer and autumn flowering: Mme. Alfred Carrière, Longworth Rambler, Conrad F. Meyer, Grüss an Teplitz, François Crousse, Aimée Vibert, Feilenberg, Zepherin Drouhin, Mme. I. Pereire, Cheshunt Hybrid, Gloire de Dijon and Blanc Double de Courbet. To run over the cliff some of the wichuraiana Roses would be best. The following are excellent: The type, wichuraiana alba, Alberic Barbier, Hiawatha, Lady Gay, Paradise, Elise Robichon, Joseph Billard and Jersey Beauty.

Foliage of Rose Niphetos curling (*F. Wilkinson*).—The foliage sent shows signs of having suffered either from a chill through a draught of cold air coming into the house or through over-watering. These Tea Roses are very susceptible to chills, although they can stand a deal of cold if brought up to it from the commencement. Probably the points of the shoots dropping out is the result of a very tiny maggot eating into them, or it may be, as suggested above, the result of too much water at the roots. Try and give the Rose a little more warmth and be very careful how you admit air, especially at the end of the house where the plant is growing. When applying water see that it is chilled to the same temperature as the house, as cold water frequently has had very injurious effects upon growing Roses.

Rose hedge (*J. H. B.*).—An article appeared on this subject in our issue of February 27 (page 101), and a reply to a correspondent on the same matter in our issue of March 6 (page 120). It is not too late to plant the proposed hedge, especially as the weather has retarded vegetation so considerably. We advise you to have the soil trenched as quickly as possible, incorporating some good manure liberally. Procure good strong plants of what you elect to use and cut them back to about 1 foot or 18 inches of their base. You could obtain a quicker effect by planting pot-grown plants, especially such as have been potted up from the open ground and grown in their pots one season. These are infinitely superior to the long-shooted grafted plants that are grown for the best part of the year under glass. Such plants as these would not require pruning, and as they run from 4 feet to 6 feet high, you would have a hedge at once.

THE GREENHOUSE.

Forced Tulips (*F. W. B.*).—In the first place, in order to have forced Tulips dwarf, a very important matter is the selection of varieties, and florists depend to a large extent upon the different forms of the Duc van Thol section. Next, the pretty pots that you see with flowers all equal in height and condition are made up, and have not been grown in the pots as sold. They are potted or put into shallow boxes in the autumn and stood outside covered with ashes till the roots are active. Then they are brought on in heat, and when the forwardest are sufficiently advanced they are pulled out and the pots made up as you have seen them.

Treatment of Alberta magna (*Franciscus*).—In order to succeed in its culture, Alberta magna requires a structure kept somewhat warmer than an ordinary greenhouse. It is a native of Natal, and therefore comes from a warmer district than many South African plants which we cultivate in our gardens, most of which are from Cape Colony. During the winter a minimum night temperature of 45° will be required, and that means a rise of 10° or so during the day. Now, of course, the house will be warmer. The potting compost mentioned is very suitable for the Alberta. The only cultural directions are to water when necessary, while an occasional syringing will be helpful; in fact, treat it at this season much like an Indian Azalea.

Treatment of Fuchsias (*F. W. B.*). Your Fuchsias must now be brought out of the cellar and placed in the greenhouse. Any that are at all straggling in shape should have their branches shortened back in order to obtain good plants. Then the roots must be watered, but not too heavily at first. Young shoots will soon make their appearance over the entire plants, and when they are about half an inch long the plants must be repotted, taking away a good deal of the old soil. After being repotted an occasional syringing will be beneficial, but water at the roots should be carefully given; at all events, till they have taken possession of the new soil. A mixture of loam, leaf-mould and sand is very suitable for Fuchsias. In this way you should have a good display of flowers during the summer, at which season an occasional dose of liquid manure will be helpful.

Lilium Harrisii (*Mrs. Bowman*).—If the plants are much drawn and no flower-buds appear in the tips of the shoots, we can only conclude that the bulbs are not sufficiently strong for flowering. You do not say whether the pots of bulbs are new or old, and only very rarely indeed do these Lilies produce a flower in the second year. If no flowers are visible, you had better plant them out in a shady place in the open. If you can give fuller particulars, such as when purchased and potted and height of plant, we may possibly further assist you. The reply *re* Asparagus bed is given on page 136 of The Garden for March 20.

KITCHEN GARDEN.

Broccoli and frost (*S. C.*).—We feel almost inclined to congratulate you on having saved some of your Broccolis from the frost. In the London district, which is a very large one indeed, the harm done to both Broccolis and all the winter greens has been of a most unusual and destructive kind. Really in some places all winter Brassicæ has been wiped out. Many gardeners do not recollect so disastrous a winter. No doubt your earlier Broccolis Winter White and Leamington suffered most with you because they were full of sap just at the time the frost was so severe. That you managed to save your August-planted Model, Defiance and Late Queen so well shows the advantage of making later sowings and plantings of these late-heading varieties than is usually the case. You do not say whether you laid your earlier Broccolis on their sides, putting soil over the prostrate stems, as is often done. So treated and with some Fern or light straw litter shaken over the breadth Broccolis often escape injury, although the heads may be rather smaller when formed than if the plants were erect. It is, as a rule, the pith of the stems which suffers most from frost.

Mushroom spawn (*S. Smith*).—Try John F. Barter, Limited, Mushroom growers, Napier Road, Wembley R S.O, London. You should try their shilling book on Mushroom growing.

Winter Turnips bitter (*Salop*).—No fault can be found with your method of culture. Winter Turnips do not improve in quality or flavour with age, and yours are now getting old They are also about to start into new growth, and this, with the past inclement weather, will account for the flavour deteriorating. We suggest that the quality and sweetness of the Turnip would be retained for a longer time if they were stored for winter in clamps of straw and soil out of doors, where they would be safe from the changes and inclemency of wintry weather. The variety mentioned is excellent; we have grown it for many years.

FRUIT GARDEN.

Fertilising Peaches and Nectarines (*S. C. N.*).—Fertilisation of the flowers of these trees should commence immediately the pollen is freed from the sheath which protects it on the anthers. When this has taken place the pollen can easily be seen, but, if in doubt, touch the anthers of the flowers with the hands, when the pollen will adhere to them. Syringing the trees should be stopped for a fortnight after the trees open their flowers, after which it may be resumed, as most of the fruit will be set by that time. Yes, the trees should receive a good soaking of clear water before the flowers open and again as soon as the fruit is set, which it will be in about a fortnight.

Is it possible to grow Muscat Grapes without any fire-heat at all? (*A. B. C.*).—A gardener who understands his business may grow them fairly well by conserving and utilising all the sun-heat during the spring and summer months; but it is quite impossible even for the best Grape-grower to grow them to the size and perfection possible with the aid of fire-heat. Your only hope of success lies in the matter of careful and intelligent ventilation, never giving too much air to lower unduly the temperature at any time. Avoid giving front air at all, at least until the first or second week in May, and then only very sparingly, giving back air instead in sufficient quantity to keep the temperature from rising too high. The Vines will stand from 75° to 80° Fahr. in the middle of the day with air on. All the air should be taken off at 3.30 p.m., having previously syringed the vinery walls and borders, but not the Vines. This will give a grand moist heat of from 80° to 85° for a couple of hours from sun-heat in the afternoon, and the Vines will luxuriate in it. You had better reserve your fire-heat for cold days and cold nights to keep the air of the vinery sweet and on the move. Leave a chink of air on the back ventilators all night while the weather is warm.

Branches of Peach trees dying (*T. N. H. W.*). It is not an uncommon occurrence among old Peach trees for branches to die off, and nobody has ever been able to give a satisfactory reason for their doing so; but very rarely indeed do they die on young trees. We presume that the trees have not been subjected to an overdose of any powerful insecticide, or received an extra heavy dressing of artificial manure during the past summer or winter, or that the bark of the branches has been injured by any chance. Any of these causes would account for the damage. In any case, the only way of bringing the trees back to health again is by the encouragement of healthier and larger root growth. This could best be done by replanting the trees in new Peach soil; but it is too late to do this now—autumn is the best time for that—although it is not too late to take a layer of the top soil off as far as the roots extend and deep enough to reach a good body of surface roots, replacing the old soil taken off by a layer 6 inches deep of the following: To one barrow-load of turfy loam add a peck of old mortar rubble broken small, half a peck of quicklime and half a gallon of bone-meal, treading it down firmly. The trees should receive a thorough watering before the new soil is added. In the course of the summer this new soil would be permeated fully with new, active roots, and could not help but infuse new vigour and better health to the trees.

MISCELLANEOUS.

Parrakeet for inspection (*Brentwood*).—The bird died of congestion of the lungs, and little can be done for birds which have once contracted this disease. The only remedy is to administer aconite on the first signs of cold. As this is a poison, some chemists will not sell it without a doctor's certificate. In this case get aconite tabloids and dissolve two or three in the bird's drinking water. If the bird is big enough, these should be administered in the form of pills, but this it is impossible to do with small birds.

The climate of South Devon (*Flora*).—In a matter of so much delicacy and importance as the choosing of a home, we hesitate to take the responsibility of advising you. We can only say that, provided on further enquiry you find the conditions of climate, &c., not inimical to health, you will be sure to find them favourable for gardening.

Seakale, and paint for painting garden frames (*Enquirer*).—The best Seakale is Lily White. The best paint to use for garden frames is oil and white lead paint. This can be had in any colour ready mixed for use from ironmongers or oil and colour merchants. It will require thinning down occasionally, and turpentine and linseed oil are the best to use for this purpose. It is easily applied by a careful man with an ordinary paint-brush.

Pond disfigured by floating weed (*Mrs. E. J.*).—You cannot do better than use copper sulphate for your pond. Calculate the quantity of water in the pond and use one part of copper sulphate to every million parts of water. Mix the sulphate in a little water and syringe it over the pond. Another way to use the material is to place it in a canvas bag and trail it through the water until dissolved. It will not injure the plants at the strength mentioned, but it is uncertain how it will affect the fish.

Weed infesting a lawn (*S. Steemson*).—The weed which infests your lawn is Ajuga reptans. Your best plan to cope with it will be to obtain Lawn Sand and dress the lawn with that. When ordering the sand, send the dimensions of the lawn and ask for the correct quantity and directions for use. It is most efficacious if applied in dry weather. After its use the grass will probably turn brown, but it will recover quickly; the weeds will be killed. Bare patches will occur where the weed is killed, and these ought to be pricked over with a fork in damp weather and grass seed sown. Should any of the weed be noticed at a later date, a second dressing of sand may be given.

Information about garden plan (*Trefoil*).—Taking your queries *seriatim* we consider: (1) That the aspect is favourable. (2) There is no evergreen or live hedge fence to compare with the common seedling green-leaved Holly, planting a double alternate row and employing plants about 18 inches high. Such a fence could also be wired round at the same time. You might plant Corsican Pine and Lawson's Cypress to break the view and assist the surroundings, while such trees and shrubs as Almonds, scarlet Thorns, Lilac, Mock Orange, Guelder Rose and Garrya would be serviceable about the sides of the garden. (3) As the flower garden is small and you have a good supply of Roses, you cannot do better than plant beds of these with Lilies for autumn effect, and Daffodils for flowering in spring. The pergola should be planted with Rambler Roses and Clematises, but as this is so near the house we think you had better defer its planting till the building is completed. (4) You might plant espalier fruit trees between the tennis lawn and vegetable garden, and bush pyramid Apples in other places. If you plant these latter in a sort of border line, say, 4 feet from the path, you might further indulge in a herbaceous border at that point. You cannot do much in this way, however, till the house is erected.

Names of plants.—*A. R.*—The Cyclamen seems to be a small-flowered variety of the sweet-scented Persian Cyclamen, seeds of which can be obtained from Messrs. Sutton and Sons, Reading.——*A. B.*—1, Thuya occidentalis; 2, Picea excelsa aurea.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

THE SIX MOST POPULAR ORCHIDS AND HOW TO GROW THEM.

(First Prize Essay.)

THE six most popular Orchids are, I think, Calanthe Veitchii, Cattleya Trianæ, Cœlogyne cristata, Cypripedium insigne, Dendrobium nobile and Odontoglossum crispum, all of which are well within the compass of an amateur, who can perhaps only devote limited time at each end of the day to his hobby, as they are easily managed if care be taken to observe certain points in their cultivation. Orchids are best grown in structures to themselves over a base of moisture-retaining material such as shingle, where they are near to the glass in a good light. If grown with other plants the species should be grouped together, as they are more easily attended to and the results are consequently better.

During growth an atmosphere freely charged with moisture and always a moving air should be kept about them, avoiding draughts. It is important to secure well-matured growths to ensure successful flowering. This is a matter which must be kept in view the whole season, and cannot be attained by forcing a sappy growth at one part of the season, then giving a baking at another, but by careful attention to light and air at all times.

For watering and spraying use only clear rain-water, as a deposit of lime or any other sediment on the leaves is very injurious.

How to Grow Them.

Calanthe Veitchii is one of the most charming Orchids, and flowering as it does in December and January is always welcome. Early in March the pseudo-bulbs begin their growth, and by the time this is visible the whole compost should be removed from their roots, which will be quite dry. Care must be exercised so as not to injure the bud, and make a critical inspection before repotting to see that there are no scale or other insects about them. Procure clean pots 6 inches or 7 inches in diameter, place about 1½ inches of crocks in the bottom and cover these with moss. The compost should consist of good fibrous loam with one-third dried cow-manure and some coarse sand, adding a sprinkling of bone-meal. Retain the tuft of old roots and place the pseudo-bulbs so that the base is only just below the surface of the soil, and fill the pots to within half an inch of the top. The old roots hold the bulbs in position until they are rigidly anchored with the complement of new roots, or a short stick must be provided to ensure stability. Stand the plants on a shelf in a stove temperature, water with discretion in the early stages, and as the roots extend through the compost liberal supplies must be given. Shade from direct sunshine, and when the pots are full of roots apply diluted manure water until the foliage shows signs of dying off, when less water will be needed, and eventually, when the leaves are gone and the flowers over, the soil should be quite dry. When in flower the Calanthe can with advantage be placed in a cooler and drier place.

Cattleya Trianæ.—To grow this Orchid well it is best to have a receptacle which will admit of free aëration of the compost, pots having perforated sides or baskets being suitable. The size of the receptacle should be in accordance with the size of the plant. Provide ample drainage to ensure the quick passage of water through the compost, which ought to be made up of best fibrous peat minus the finer particles, or Osmunda fibre and sphagnum, with some broken crocks and charcoal intermixed. When potting keep the base of the pseudo-bulb rather above the rim of the pot, making the compost up to it. The plant flowers about February, and after flowering is the best time either for repotting or redressing with new compost. The temperature ought not to fall lower than 65°, with abundance of moisture in the atmosphere. Water carefully through a rose when first potted; but later, when the compost has become settled, it is better to dip the pot into a a pail or tub of water if possible. When growth is complete the supply of water should be restricted to encourage a long period of rest, but the drying must not be carried to excess in the case of this Cattleya, or shrivelling of the pseudo-bulbs will ensue, this being very undesirable. Scale will affect the Cattleya, as also will thrips when the leaves are young, and to eradicate these sponge carefully with soapy water.

Cœlogyne cristata.—This Orchid while growing is best suited in a temperature a little lower than is necessary for the Cattleya, but when growth is complete and the plant resting it must be removed to cooler and drier conditions. The flowering time is late January and February, and in late February or early March is the time for repotting or top-dressing. Deep pans are the best receptacles. Provide plenty of drainage and a good compost of turfy loam, Osmunda fibre, some sphagnum and sharp sand, well mixed together. Cœlogyne cristata is impatient of stagnation, but must be liberally supplied with water while growing, and a pleasantly humid atmosphere must also be maintained. When resting it must not be dried too severely, as this has a weakening effect, and on no account must the pseudo-bulbs be allowed to shrivel. The Orchid scale at times infests this plant; it should be carefully removed and the plant sponged with a soapy solution afterwards.

Cypripedium insigne.—There are few collections of plants under glass which do not include a few plants of this Cypripedium. For the amateur with a greenhouse only it is a useful subject, being well grown in the cool house. It requires plenty of moisture, therefore it is necessary to provide ample drainage, and the compost must be made up of the best material of its kind; this should consist of two parts fibrous loam, one part peat and one part leaf-mould, with a sprinkling of coarse sand. When potting, do not raise the plants above the pots at all, but rather keep them a little below the same, as with ordinary plants. When the plants are

established, a top-dressing only may be necessary for a few years; this is managed by removing the upper portion of the compost and renewing with fresh material. Shade from direct sunshine and maintain moisture about them during the growing season. In winter they must be kept moist, as, being evergreen and having no store of nutriment (as is the case with thick-stemmed Orchids), they rely on root action the whole year; but naturally such abundant supplies will not be required after growth is complete.

Dendrobium nobile.—Perhaps this Dendrobium is the most easily managed of Orchids; it is best grown in teak Orchid baskets suspended from the roof, and the rooting medium should consist of good peat or Osmunda fibre, fresh sphagnum, with a few small nodules of charcoal intermixed. The plants can be raised a little above the edge of the baskets, and with an annual top-dressing this will last them for years. The old stems should be removed; at least, when they become dry. This subject requires a stove temperature and a humid atmosphere during the growing season, and when watering it is much the best way to dip the basket; this plan thoroughly moistens the whole of the compost. As the season's growth approaches maturity, the water supplies should be gradually reduced until complete, the plants being kept dry to ensure a thorough rest, and at the same time remove them to a cooler place, say, the greenhouse, for a couple of months. A little moisture may be required to prevent undue shrivelling; but if the growth is properly matured this is unlikely to take place under the cooler conditions. After a good rest the plants will quickly burst into bloom on being introduced into warm and moist surroundings again.

Odontoglossum crispum.—Here we have one of the most graceful and beautiful of Orchids, which is well worth the necessary care to grow it well. Provide clean pots half filled with crocks to ensure the quick passage of water, for this subject abhors anything savouring of sourness. The best rooting medium is fibrous peat or Osmunda fibre, chopped sphagnum and crushed charcoal. In potting, the base of the pseudo-bulbs should be rather above the rim of the pot; mound the compost up to it, finishing with heads of living moss. The temperature best suited for growing this is what is usually maintained for the greenhouse; but in summer this should be rendered as cool as possible by means of a medium shading raised above the glass to allow a circulation of air between the two. The shading is much the best if removable, for the Odontoglossum revels in a direct light, but sunshine must be obscured. Let the plants be well up to the glass, keep moisture about them continually, and twice a day the plants should be lightly sprayed with rain-water and in hot weather more frequently. Keep the compost always moist. This plant flowers at almost any time, and care must be taken that slugs do not attack the rising scape. If the foregoing treatment be observed carefully, it is impossible for thrips to attack the plants.

EDWIN PLATT.
The Gardens, Borden Wood, Liphook, Hants.

PRIZES FOR READERS.

MARCH COMPETITION.—AWARDS.

IN this competition readers were asked to name the six most popular Orchids and how to grow them. The prizes are awarded as follows:

First prize of four guineas to Mr. Edwin Platt, The Gardens, Borden Wood, Liphook, Hants.

Second prize of two guineas to Mr. T. Bones, jun., 46, High Street, Cheshunt, Herts.

Third prize of one guinea to Mr. G. Cope, 48. Umberslade Road, Selby Oak.

Fourth prize of half-a-guinea to Mr. C. W. Caulfield, 7, Fetherstone Road, Stanford-le-Hope, Essex.

This competition was evidently a very popular one, and proved that Orchid culture is well understood by the majority of gardeners.

In comparing the essays sent in, we are induced to make a few comments which may be of service to future competitors. In the first place, many of the writers used the terms species and variety as if the two words were synonymous, the result, in some cases at least, being most confusing. One or two otherwise good and practical essays suffered severely by the constant repetition of some pet word of the writer, more particularly the word "should." Nearly all writers spoke of fumigating for the destruction of insect pests; but vaporising is a much safer remedy and is generally employed in Orchid culture. Many essayists named six genera, and then went on to name numerous species and varieties, so that far more than six were dealt with.

The essays from the following are very highly commended by the judges: W. Briscoe, Bear Place, Twyford, Berks; T. Varndell, Shendish Park Gardens, Hemel Hempsted, Herts; L. A. Taylor, 26, Natal Road, Streatham, S.W.; W. F. Rowles, Ickworth Gardens, Bury St. Edmunds; E. G. Extence, 3, South Terrace, Redlands, Bristol; H. Rowles, 8, Minster Terrace, Partridge Green, Sussex; F. W. Johnson, High Street, Boston Spa; W. Bond, 46, Owenite Street, Abbey Wood, Kent; John Botley, Scarletts Park, Twyford, Berks; W. L. Lavender, Waltham Manor Gardens, Twyford, Berks; W. Waterton, Heath Farm House, Watford; and Captain Traherne, Muirburn, Strathaven, N.B.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

April 20.—Royal Horticultural Society. Exhibition of Flowers, &c. National Auricula and Primula Society's Show, 1—6. Lecture, 3 p.m., by Mr. Eric Drabble, D.Sc., on "Pansies." Admission 2s. 6d. Royal Horticultural Hall, Vincent Square, Westminster. Devon Daffodil Society's Show (two days).

April 22.—Midland Daffodil Society's Exhibition (two days).

April 28.—Darlington Horticultural Society's Spring Show.

Royal Horticultural Society.—Attention has been drawn to the possibility of misunderstanding arising from the use of the word "unrestricted" in Classes 1, A and B in the Orchid division at the Temple Show. It must therefore be clearly and fully understood that the word is governed by Rule 4, which gives 200 square feet as the maximum. In other words, Classes 1, A and B are unrestricted in size only so long as they do not exceed the 200 square feet permitted by the rule.—W. WILKS, *Secretary.*

Gardeners' Royal Benevolent Institution.—The executive of the Liverpool Auxiliary met on the 3rd inst. to do honour to their comrade, Mr. J. S. Dickson, formerly of the firm of Messrs. Dicksons, Chester, who is leaving the neighbourhood to commence business in Oxfordshire. Mr. C. A. Young presided and, in proposing the health of their guest, referred to the general regret of the committee in losing their esteemed comrade. Reference was made to the marked ability and to the genial manner of their guest, and to his earnest work on behalf of the institution, which had endeared him to the committee. The toast was accompanied by a small gift as a mark of their esteem. Mr. Dickson, in his reply, stated that it was a wrench to break away from a firm which his grandfather had started, in which his father had contributed largely in building to its high traditions, and in which he had given thirty-three years to the best of his ability. It was with deep regret that he had to sever his connexion with this auxiliary, by which he had gained many friends, with whom it was a delight to meet and transact its business.

Metropolitan Public Gardens.—The twenty-sixth annual report of the Metropolitan Gardens Association, of which the Earl of Meath is chairman and hon. treasurer, is now published and, as usual, provides most interesting reading. The enormous amount of good work that this association is doing ought to be more fully understood by Londoners than it is, and this report fully explains what has been and is still being done. A map showing where open spaces, &c., have been obtained for the public is included, and this shows at a glance the vast amount of beneficial work that has been undertaken and carried to a successful issue by the association. Copies of the report can be obtained for 7d., post free, from the secretary, 83, Lancaster Gate, London, W.

Prunus subhirtella.—This pretty Prunus was introduced into English gardens from Japan about fourteen years ago. In 1895 Professor Sargent of the Arnold Arboretum, Boston, U.S.A., sent plants to the Royal Gardens, Kew, and the largest of these is now a nice specimen. It may be seen on the side of the Pagoda Vista, opposite the Berberis Dell. It is said to be cultivated largely in Japanese gardens for the sake of its beauty, though it is a native plant. Its home is stated by Maximowicz to be the mountains of Nippon. Under cultivation it forms a small, bushy headed tree, with prominently nerved, acuminate leaves 2 inches to 3 inches long. The flowers are white or slightly tinged with rose, and the calyx is red. From three to five flowers are borne together from the buds of last year's wood in early April, about a month in advance of the leaves. It nearest relative is P. pendula, which, except in habit, is practically identical. P. subhirtella thrives in light, loamy soil, and can be readily propagated by means of cuttings of half-ripe wood in summer. In addition to being a useful outdoor tree, small examples are of service for forcing.—W. D.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Potato Midlothian Early.—On reading the article in THE GARDEN of March 27, I saw that the Potato known as Midlothian Early was described as a white kidney. Three years back I had some Potatoes from a well-known firm, and they were sent as Midlothian Early. They were a white kidney (and a splendid Potato, too). Last year when I was lifting the crop from the above strain a neighbour saw them and was struck with the amount of Potatoes, also the quality of them, and asked me what they were. I told him Midlothian Early, and he said if they were that variety he had got the wrong sort, as he had sent to another firm for some and his were as much like Duke of York as possible. I have asked quite a number of people about the difference, but they say evidently I have got the wrong sort. I have sent this note hoping you will have space to insert it, so that we can get to know what kind Midlothian Early is.—E. FOXON, *Burbage, Hinckley.*

Narcissi diseased.—With reference to your answer to "H. S." about diseased Narcissi, I put about 100 pots under ashes last autumn, and nearly every pot has a malformed bulb in it. I have used the same lot of ashes for years, so that it cannot be due to them. I thought the first batch might be due to not having had enough water, but the succeeding lots, which have been well watered, have gone the same way. The leaves are crinkled, twisted and curled; sometimes a good flower will appear on a stem 2 inches long, at another time a long stem

will have a malformed flower. It has never happened with me before; but it is curious that I went to a new man for these particular bulbs. I have grown Narcissi for a good many years, generally forcing about 100 pots.—Fred Street.

Late-flowering Chrysanthemums.—Mr. Godfrey says that L. Canning is quite out of date. Can he name another white flowering variety to flower at Christmas in a 6-inch pot, height from the ground not more than 26 inches, with from nine to twelve blooms on a plant, each bloom 5 inches across? L. Canning with me has come up to this standard for the last four years. There is no lack of white, yellow, pink and bronze flowering varieties for Christmas work; but I should be very much obliged if any grower could recommend a reliable red-flowered variety for that season.—J. R., *Enfield.*

Artificial manures.—I have much pleasure in replying to "A User of Spent Hops," whose note appears on page 174 of the issue for April 10. Taking his questions *seriatim*, Wakeley's Patent Hop Manure is sold under a guaranteed analysis, which I quote herewith:

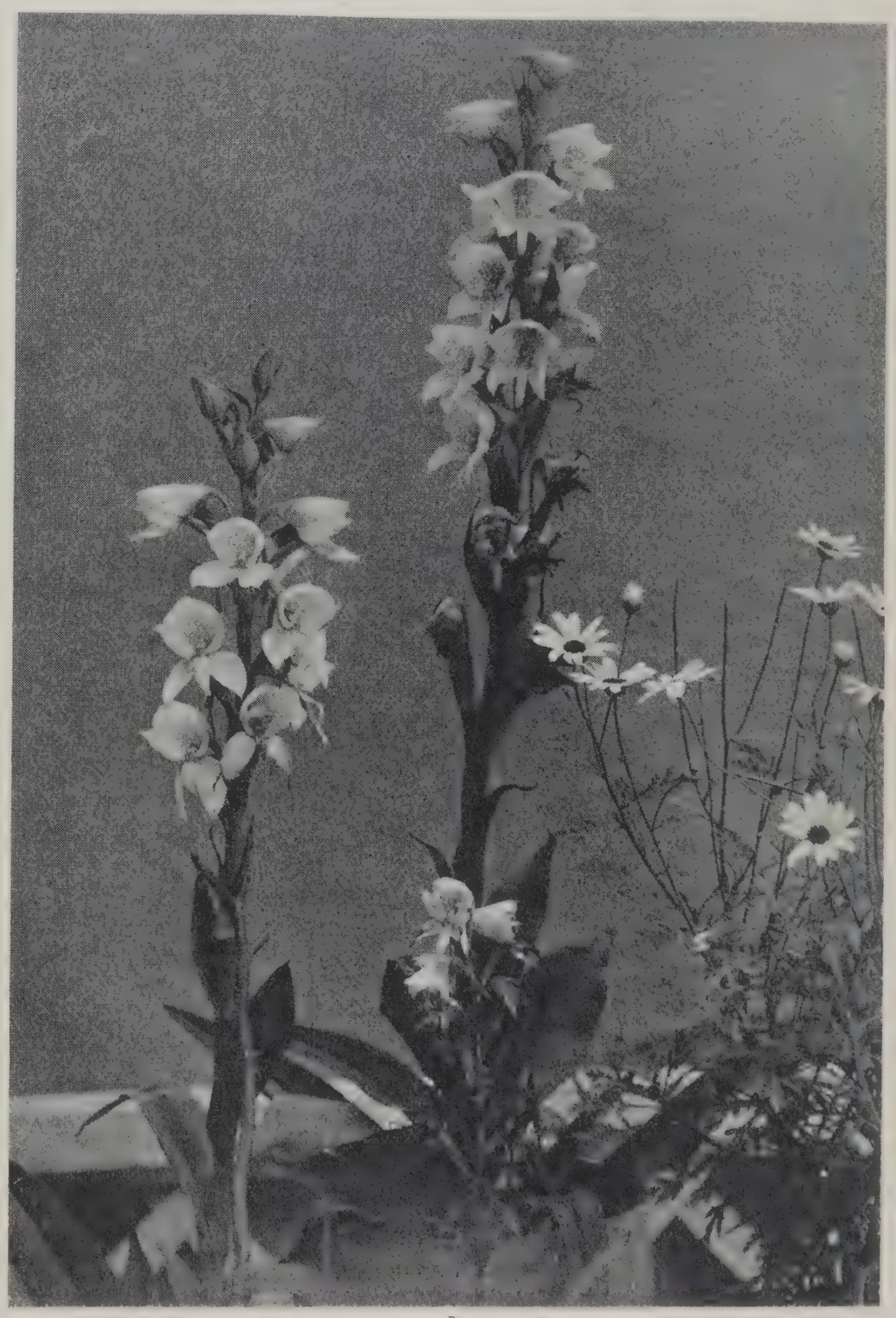
Nitrogen	2·81	equal to sulphate of ammonia	12·34
Phosphates, soluble	5·30		
,, reduced	·92	calculated as bone earth	6·74
,, insoluble	·52		
Potash	3·26	equal to sulphate of potash	6·04

This analysis is of the manure dried at 212° Fahr. It will be seen, therefore, that this manure contains a good percentage of the three principal plant foods, viz., nitrogen, phosphates and potash. I have never yet seen an analysis of spent Hops which have not been chemically treated, but it is certain that it would not approach anywhere near that given above, which is very much in advance of an analysis of ordinary farmyard manure. I have used tons of ordinary spent Hops, but have never regarded them as having any appreciable manurial value. They were usually employed in the place of leaf-mould when pricking out seedlings, as they are undoubtedly valuable as a rooting medium. My remarks in the article *re* Wakeley's Patent Hop Manure were based on the results obtained in actual practice, which is, after all, of far greater value than all the analyses put together.—K.

Banding Apple trees.—The answer given to "A. M. B." in your issue of the 6th ult. is incorrect in more than one particular. Sticky bands are not used, as a rule, to prevent an attack by the codlin moth, the females of which are not, as stated, wingless; but they are employed to trap the wingless females of the winter moth (Cheimatobia brumata), the mottled umber moth (Hybernia defolaria) and the March moth (Anisopteryx æscularia). The caterpillars of these moths when they are full grown let themselves down to the ground from the leaves on which they have been feeding, and, burying themselves in the soil, become chrysalides. When the moths emerge they make their way to the surface and endeavour to reach the stem of some suitable tree, up which they crawl, if successful, until they reach the buds, near which they lay their eggs; being wingless this is their only chance of reaching the buds, unless perchance they may be carried up by the males when pairing. So to prevent them from ascending the trees paper bands covered with cart-grease or a compound specially prepared for this purpose (tar is not so useful, as it soon dries) are fastened round the stems. The moths on trying to cross the bands get entangled in the grease or whatever compound is used and perish. If, however, the composition gets dry and loses its stickiness, the insects are able to pass over the band. The habits and life-history of the codlin moth (Carpocapsa pomonella) are very different to those of the above-mentioned moths. The females are winged and fly well, so that sticky bands are of no use in their case; but other bands are used to catch the caterpillars, which generally fall to the ground with the fruit and then crawl out; they become chrysalides in any sheltered place that they can find, selecting in preference a crack or crevice in the bark of some fruit tree near at hand, or in some post or fence or under rubbish. To prevent them from using the stems for this purpose, bands made of old sacking, canvas, or even hay or straw bands are very effective, as they afford the shelter that the caterpillars are in search of. They should be made of strips of the material long enough to go round the stem and slightly to overlap, and be not less than 9 inches wide. Each strip should be folded lengthwise in half and then not quite in half again; they should be tied tightly round the tree, so that the caterpillars cannot creep under them, about 2 feet from the ground, with the doubly folded edge uppermost, so that there will be two divisions in each band, in which the caterpillars can shelter. Such bands would be of no use for capturing the wingless moths. They should be put into position as soon as any windfalls containing this insect are noticed and should be kept in working order until the crop is gathered. It is well to examine them every now and then, and to kill any caterpillars or chrysalides which they may contain. No stones or rubbish should be allowed to remain at the foot of the trees for these insects to harbour in.—G. S. S.

LETTERS FROM OUR READERS ABROAD.

Interesting Orchids at Cape Colony. I am sending you a photograph of ground Orchids which grow on our mountains here about 4,500 feet above sea level. One is pure white, while the other has maroon, or almost chocolate coloured, spots inside. The flower-stalks grow about 2 feet high and the plants are always found on the south side of rocks (your northern aspect). The flowers have a very sweet scent and last for more than a week after being cut. I have flowered some splendid specimens in a pot on the south (cool side) of my house. They are in full bloom now, which is our autumn. Can you name this plant for me?—A. Stegmann, *Somerset East, Cape Colony.* [Probably varieties of Disa crassicornis.—Ed.]



VARIETIES OF DISA CRASSICORNIS IN SOUTH AFRICA.

The German Consul's garden at Foochow, China.—I am sending you two photographs which may interest you, and perhaps you would like to reproduce them in your highly appreciated paper. One represents my residence, and the other the interior of my Orchid house, which is 100 feet long. The photograph was taken in the central part of the house (see page 190).—G. Siemssen (German Consul), *Foochow, China.*

RIVIERA NOTES.

THERE can be no doubt, I think, that the pretty pure white Winter-flowering Buddleia called Colombia, from having been grown first in M. Edouard André's garden at Golfe Juan of that name, is the same as that grown in England under the name of Begonia albiflora. It is, however, quite white in flower, without a shade of lilac in it, as described in Messrs. Veitch's catalogue, so that it is probable the species is a little variable in colour when raised from seed. This pure white Buddleia is a strong and perennial-growing shrub which attains considerable height when trained up a pillar or against a wall, and stands as much as 8° (English) of frost before its flowers are injured, so it must prove a charming addition to winter-flowering shrubs in all sheltered gardens. Its bold, branching sprays of flower are more slender and upright than those of the late summer-flowering Buddleia variabilis Veitchii, and its leaves are much narrower in proportion to its length, making very pretty sprays for cutting to mix with Iris stylosa or any other

winter-blooming plant. With a few cut Poinsettias it is particularly light and effective when cut for the house. It is quite scentless.

LACHENALIA PENDULA MAJOR (or var. aureliana) is less grown in England, I fancy, than on this coast, where it is much used for winter bedding. Its bold heads, of a particularly telling shade of red, make a welcome glow of colour when Salvia splendens is past and the early Tulips and Salvia gesneræflora are hardly in beauty. It has one objection in this climate, namely, that it does not thrive when planted permanently in the garden. It needs sun in winter to bring it to perfection, like all Lachenalias; but it cannot stand the pitiless burning and baking of the summers here, so it must be taken up and kept in a cool, dry cellar during the summer months. With these reserves it is, with other Lachenalias that flower later, a very desirable bulb for any garden, and needs the same light and rich soil that they enjoy.

VITIS VOMERENSIS.—Under this name, which I cannot quite guarantee, a very handsome evergreen Vine has been growing for three or four years in a Nice villa garden, and has only once suffered at all during the severest frosts on this coast. There is nothing in the least like it for bold growth and effect, and I much hope that my mention of it may bring forth some notes about it from others who may grow it. Its large, leathery foliage is deeply cut up into fine lobes, which are in turn roughly decorated and edged with a light brown tomentum. On a slightly shaded wall or sheltered pergola it is superbly handsome. It is so much bigger and massive; indeed, I may say more sculptured in effect than any other climber I have seen outside the Tropics. The strong, brown-felted stems bear these metallic-looking leaves at a considerable distance from each other, and they diminish in size gradually from the base of the year's growth to those that are at the end of, perhaps, a 10-feet or 15-feet shoot. The colour varies also from the deep olive green leaves most fully developed to the brilliant green tones of the smaller leaves of the late autumn growth. Whatever its origin or its true name may be, it is worth hunting for and planting wherever there is room for so bold a grower and a climber so unusual in every way at all seasons of the year.

DIPLOPAPPUS FRUTICOSUS. — This shrubby Cape Michaelmas Daisy is always a source of interest and admiration during the months of January and February, for its star-shaped flowers are so exactly like the autumn Michaelmas Daisies that the new-comer invariably remarks, "How late for an Aster to be in flower!" It is more dainty in growth and foliage than most of the Asters, and as a midwinter flowering shrub it is of great value on a dry bank, where, with the Eriocephalus capensis and Coronilla valentina, this trio of neat-flowering winter shrubs is shown to great advantage. The white heads of Daisy-like flowers on the Eriocephalus turn to white cotton-wool tufts, so that at a distance the plant looks in flower up to the month of May, while the Coronillas begin in February and continue throughout the spring. C. valentina is first, C. glauca second and C. coronata latest and largest of all.

PRUNUS SERRULATA SPECIOSA. — Under this name a pretty Cherry with deep Rose du Barry-coloured flowers has been in bloom some time, coinciding with the earliest Almonds. It has the great advantage of keeping nearly all its green last year's foliage to set off the dainty rose-petalled Cherry blossoms. For this coast it is a real acquisition, but it is evidently a rather small grower and should be grafted on a 5-feet standard to enjoy its pendulous flowers and green leaves, which make it so unlike any other Cherry at flowering time. The sequence of flowers is also unusual, as the peduncles produce quite a succession of buds one after the other. Last year my plant was in flower from the last day of January to the very end of March, a period of seven weeks at least. EDWARD H. WOODALL.

THE FRUIT GARDEN.

HOW TO GROW FRUIT TREES IN POTS.

(Continued from page 164.)

WHEN I first started to grow our orchard-house trees in pots I took note of the procedure followed by the most successful growers of the same, viz., Messrs. Rivers of Sawbridgeworth, and I was surprised to learn how strictly they carried out this annual potting. I firmly believe that the omission to pot every season has been a frequent cause of failure. Perhaps some may have had trees which for varied reasons have not fruited as they should have done. To assume, as a general rule, that the omission of potting every autumn will meet the case is a mistake; this will increase the labour of watering. Allusion has been made to potting firmly. This, I feel, must be emphasised, as it is all-important. If not potted firmly the finer portions of the soil are more likely to be carried away during the process of watering. Another reason is that firm potting is conducive to the production of fine fibrous roots, which are infinitely better than those of a coarser tendency. When one looks at and compares these trees in pots, the disparity between the size of the pot and the tree itself seems to be out of all proportion, *i.e.*, the pots appear to be far too small. We have trees now in pots that have been forced yearly for twelve years past, and which rarely ever miss carrying a good crop of fruit, such, for instance, as Cardinal and Early Rivers' Nectarines, now in 12-inch pots with a height of 5 feet and a spread of 3 feet. Of Peaches we have Dr. Hogg and Stirling Castle in 12-inch pots, the height being 7 feet and the width across the head 3½ feet. Of Plums we have Early Transparent Gage and Reine Claude Comte Althan in smaller pots even when compared with the size of the tree; one of the former is in a 11-inch pot, the tree being 5 feet high and 3 feet through, and one of the latter is in a 11-inch pot having a height of 5½ feet and a spread of 3½ feet.

SOILS.

The chief thing to secure is a good quality of loam with plenty of fibre in it. The top spit of an old pasture which is tough and not easily crumbled up is excellent. In our case we usually mix two loams together. For some years we used what was called Banstead loam, but this is now practically worthless and dear at any price. My choice now is a strong calcareous loam that comes from Kettering with another from Hampshire. Both of these are full of plant food, the latter being somewhat lighter in texture than the former. When mixed these form an excellent potting soil for fruit trees. To these loams we add about one in twelve of well-decayed manure, and nearly as much of lime rubble broken up finely. No stimulating manures of any kind other than that named are mixed with the soil; these had far better be used later on to assist the trees when fruiting. I much prefer to have the soil rather on the dry side than otherwise for potting. We usually mix the soil during dry weather in September, and thence onwards protect it with a tarpauling. In this way the advice given already to pot firmly is much better carried out. The soil should never be what is termed pasty or sticky. JAMES HUDSON, V.M.H.

(To be continued.)

FRUIT NOTES.

MULCHING STRAWBERRIES. — Strawberries are fruits that demand practically incessant cultural attention from the time when the roots recommence activity in the spring after their winter's rest until the beds are finally cleared up in the autumn. The last operation is to thoroughly mulch the entire plantation with the finest manure that is at command; and now that spring has quite reached us, it is excellent practice to rake off the remains of this dressing and put on another one. As soon as all the material has been removed the soil should be weeded and either lightly hoed or pointed over with a fork, so as to leave the surface open to the free admission of fresh, warm air, which will prove of inestimable benefit to the plants. Upon the completion of these tasks the cultivator should apply to the surface a good covering of long, strawy manure, from which the roots will receive immediate sustenance, and in due course the straw will be washed perfectly clean and will answer the further purpose of a bed upon which the ripening fruits may rest, and thus be kept free from dirt and grit. In some instances there is a possibility that the grower has not sufficient suitable litter at his command, and in this event it is wise to dress the soil with some approved concentrated fertiliser, following the directions of the manufacturers, and later on he will have to spread clean straw or adopt some other device for keeping the swelling fruits quite clear of the surface of the ground.

DISBUDDING.—This important operation should be pressed forward with all speed, but the inexperienced cultivator must bear in mind that it is a detail of management that demands considerable judgment and no small amount of skill. To set to work and rub out every bud that was not required at one time would be to court the disaster which would assuredly follow, for the tree would receive a shock that it could not withstand. Avoid this by proceeding in stages and completing the entire work in three or four turns. The result will then be fully satisfactory, no matter from what particular point of view it may be regarded.

SURFACE TILLAGE.—Among the many details that go to successful fruit culture, few, if any, are of more real importance than the surface working of the soil in which the roots are ramifying. The desirability of keeping the feeders as near the top as possible is unquestioned, and one of the readiest means to this end is by spreading mulchings of sweet manure; but these are not always at command, and their absence must be compensated for by surface loosening. If the top soil is persistently hoed or pricked over with a fork the cultivator derives a dual advantage, for in the first place he encourages the free admission of rain and warm, fresh air, while in the second place he ensures the retention of the food in the ground. If this principle can be applied to all the quarters, recompense is certain to follow in the form of finer sets of fruits and superior quality.

SPRING SPRAYING. — Unfortunately for the British fruit-grower there are several pests which, unless they are vigorously and persistently attacked, will work sad havoc among the crops. It is, of course, true that much remedial and preventive work can be and is done in the late autumn and winter, but these efforts must invariably be supplemented by others in the spring. Let us take, for example, those two dreaded enemies, the winter and Codlin moths. Sticky bands on the boles of the trees and caustic winter washes are of immense service and account for thousands of pests annually, but all are not caught, and it is those that are left which we desire to tackle in the spring. In both cases there is nothing superior to Paris green at the rate of 1oz. to twenty gallons of water, sprayed on in the finest possible film before the blossoms expand, after the petals are cast and, finally, before the fruits turn downwards, the latter being especially directed against the Codlin moth. This substance is, however, of a poisonous character, and must be handled with a reasonable amount of care. If ordinary precautions are taken, the novice in fruit growing need not hesitate to use it as a preventive and destroyer of the pests named. FRUIT-GROWER.

THE KITCHEN GARDEN.

VEGETABLE CULTURE.

Why Not a National Vegetable Society?

THOSE who have the opportunity of gauging to some extent the trend of public opinion or tastes regarding horticultural matters will be aware that there is an ever-increasing demand for wholesome vegetables, and the up-to-date grower will not be slow to meet this demand. Many cultivators, however, seem exceedingly slow to adopt the unorthodox, hence my excuse for this article. The term vegetables is here used in its widest sense, so as to include salads and even Rhubarb. Nor must the term wholesome be construed to mean solely rare or out-of-the-way vegetables, but also good quality specimens of the kinds and varieties that we already possess. Cultivators have almost a plethora of good subjects to work upon; but in the past there is no doubt that far too much attention has been paid to size, with the natural result that quality has suffered to a considerable extent. This, perhaps, does not apply to our best gardeners in private establishments so much as to those who grow for market, but both are undoubtedly guilty in a lesser or greater degree.

Let me hasten to assure my critics that I am fully aware that certain vegetables are better for a few purposes when grown large, but, generally speaking, this is not so. I feel sure that in the past the kitchen garden and vegetable land in market establishments has been far too heavily manured, with the result that rank, coarse growth has been obtained, which, as regards flavour and fineness of texture, cannot be compared with that grown on poorer but still good quality soil. Many a kitchen garden in the country has been so heavily and continuously manured that it is what good gardeners expressively term manure-sick, and, of course, the obvious remedy is to withhold natural manures for a year or two and give a good dressing with lime. Better by far give the manure to the flowers, which are frequently half starved.

As one who has necessarily to buy vegetables for a good part of the year, I say with all consideration that it is next to impossible to purchase any (except, perhaps, Potatoes) that are fit to eat. The average consumer is content to put up with such produce, because in nine cases out of ten he does not know that it is possible to produce any of better quality; but once let him realise this fact, as he is slowly but surely doing, and I think growers will have to bow to the inevitable and produce what is wanted.

Then, again, there are some vegetables that one rarely sees at all, except in the gardens of the wealthy or those shops where prices are altogether prohibitive. Let anyone who doubts this statement ask the average greengrocer for, say, Globe Artichokes, Chicory or Witloof, Salsify or Scorzonera when these are in season, and it is ten to one he will not even know them.

Probably the vast amount of laxity that exists in regard to vegetable culture is due to ignorance, and I feel sure that many local horticultural societies have done much to foster coarseness at the expense of quality. It requires a stout-hearted judge to give the premier awards at shows to exhibits that, though lacking in size, are undoubtedly the most refined. What we really need is a National Vegetable Society, run on the same up-to-date lines as the National Sweet Pea Society or the National Rose Society. There is undoubtedly a vast amount of good work that such a society could carry out, and surely those who have a special interest in vegetables could be depended upon to support it in the same generous manner that our numerous floral societies are supported. It is true that such a society has already existed, and considering the effect that vegetables have on the health of the nation it is high time that it was revived. Compared with flowers, which, by the way, I admire and appreciate as much as anyone, vegetables are of considerably greater value, and to the average man or woman it must seem, to say the least, very strange that we can form floral societies almost innumerable and yet cannot muster one to look after vegetables.

SHORTIA GALACIFOLIA IN A LINCOLNSHIRE GARDEN.

At present many excellent trials of a few kinds of vegetables are being conducted by the various county councils, and seed firms, of course, conduct their own trials; but something more is needed to bring before the public what is really good and to set up a standard for judging at local shows. When this is done we may hope to obtain vegetables that are suitable for consumption by human beings, instead of, as now, being merely bags of vegetable tissue gorged with manure juices.

A Lover of Good Vegetables.

[We are pleased with this letter. Vegetables when properly grown and properly cooked are welcome in the home, whether that home is a palace or a cottage. The vegetable as grown for sale in England at the present time is not fit to eat, but happily there are signs of great developments. We hope to publish several notes on the cultivation and cooking of vegetables—a most important subject at the present time.—Ed.]

THE FLOWER GARDEN.

SHORTIA GALACIFOLIA.

ALTHOUGH less rare than was the case a few years ago, Shortia galacifolia is still far from being widely grown, so much so that one hesitates to describe it as a common plant in gardens, yet, so far as cultural requirements are concerned, there is nothing to prevent it becoming familiar even to this degree. My first experience of Shortia galacifolia was marked by the receipt of a tiny scrap "established?" in the orthodox flower-pot that, when shaken free from the soil, revealed only a fragment of root attached to the stem, while the only evidence of foliage was four small leaves, perforated, torn and almost too decrepit to be of any further service to the plant. Such examples I have found not uncommon, due no doubt to over-propagation. However, it serves to illustrate the marvellous tenacity upon life which is so characteristic a feature of this Shortia. Specimens like the above rarely show much evidence of growth the first year after planting; the second season returning strength will be evident as the shoots grow and develop leaves, and in the third season this tiny scrap covered a 9-inch circle with its foliage and produced flowers the following spring. A light, moist soil is essential to success. The humus which collects and forms in Oak plantations, if mixed with equal parts of sandy peat and loam, will form an ideal rooting medium into which the slender growths will readily penetrate. Chalk or lime in any form must be rigorously excluded from the soil. The position selected for planting may be as open as possible provided no great amount of midday sun plays upon the plants, for though full exposure yields a deeper purple in the foliage, yet it does not help forward the full development of the plant, as in partial shade we simulate most closely its natural conditions. In such positions it flowers ungrudgingly when established, the foliage taking on additional charm by reason of the diversified mingling of green and bronze and purple in the leaves. It flowers in the open during April—early or late according to the season. The buds are crimson, carried on slender, wiry stems, and these begin to lengthen in March, until, eventually, the solitary flowers are unfolded. The corolla is ivory white, having the edges all crimped and waved. The five-tongued anthers are lemon, the stems ruby pink and the foliage veined and marbled, forming in the aggregate one of the daintiest treasures among hardy plants. S. galacifolia is rarely more than 6 inches in height, and not even this unless under the conditions indicated above. The foliage is evergreen, and springs from the rootstock, resting upon the soil in the form of low mounds, which are beautiful even when not in flower. The history of the plant is a lasting tribute to the dauntless energy which characterises plant collectors. "First collected by Michaux in 1788, his imperfect specimens lay unnoticed till Asa Grey saw them in Michaux's herbarium in Paris and recognised in them an unknown plant. Its rediscovery dates from 1877 with the finding of a tiny patch upon the banks of the Catawba River, North Carolina."

There is also a pretty pink form of S. galacifolia which is making headway in gardens. The only other species in cultivation is the Japanese S. uniflora. This has smaller leaves and flowers slightly larger than in the American

species; it is also more difficult to establish. Plants to associate with Shortia and sustain the interest are none too plentiful. I have found the following succeed under the same conditions: Galax aphylla, Gaultheria nummulariæfolia, Daphne blagayana, D. Cneorum, Betula crenata nana and the beautiful creeping Salix reticulata.

Walmsgate Gardens. Thomas Smith.

PLANTING OUT CARNATIONS.

Owing to the wet, cold weather recently experienced, the work of planting out border Carnations has in many cases been delayed, but it will now be advisable to accomplish the task as soon as possible. The ground in many cases will have been prepared for their reception, but where this has not been done no time should be lost before a site is thoroughly manured and deeply dug, as the Carnation demands good cultivation if the best results are to follow. Well-drained soil is essential and, providing a light soil, which is naturally dry, owing to a gravelly or chalk subsoil, is being prepared for Carnations, a liberal quantity of cow-manure should be worked into the bottom of the trench as the digging proceeds. The manure will thus be within reach of the roots of the plants at a time when nourishment is very beneficial, viz., during the production of the flowers, while strong, healthy "grass" will also be available for layering. When applying the manure to these light soils an even layer 3 inches in thickness should be placed in the bottom of each trench, as a scanty application is not sufficient to produce good returns.

After the digging is completed, and when the surface is fairly dry, tread the whole firmly and evenly, give a liberal sprinkling of soot, level the soil with the rake and plant out as soon as possible. Strong-growing varieties may be planted 1 foot apart each way, but those of moderate growth may be planted somewhat closer. Press the soil firmly around the roots, as a moderately firm rooting medium induces strong, healthy growth and, consequently, fine blooms.

Over-feeding with liquid manure must be avoided, or soft, sappy growth will result and poor blooms will follow. Several applications of diluted manure water may be given when the plants are growing freely and forming their flowers. Keep the soil around the plants frequently stirred with the hoe, and during a period of dry weather give attention to watering. Syringing overhead during the evening following a hot, dry day is most beneficial to the plants.

Should the soil be of a heavy, retentive nature, drainage must be provided, and in this case a dressing of horse-manure should be used in place of the cow-manure as advised for the lighter soils. Finely broken mortar rubbish or old plaster should also be worked into the soil, or, failing this, a liberal quantity of sharp road sand, which will help to keep the soil open and tend to free and healthy root action. The Carnation succeeds admirably in a deep, rather heavy loam, providing the necessary preparations are made before planting. Choose a fine day for planting, and if there is any danger of damage being done by sparrows, black thread must be brought into use. It is wise in many cases to attend to this as soon as the planting is completed, or much damage may be done in a few hours.

There are many beautiful varieties of border Carnations, and in addition to these many of the Perpetual-flowering or Tree Carnations succeed well and are indeed beautiful when planted out, giving a long succession of their charming flowers. The Old Crimson Clove and also the White Clove have a charm of their own, and should be included in every collection. C Ruse.

IN A GARDEN IN CHINA (THE GERMAN CONSULATE). (*See page 187.*)

PART OF THE ORCHID HOUSE IN FOOCHOW. (*See page 187.*)

SHOULD ALPINES BE MANURED?

There appears to be something of the nature of vandalism about the suggestion implied in the question which forms the title to these notes. It seems as if there was a want of appropriateness in the association of alpine flowers and manure, a kind of lowering of the virtues and ideas we associate with these wildings of the mountains, when we think of them in the same moment as requiring the aid of such mundane things as manures, which are generally associated with less ethereal plants. But why should this be? We consider it quite a matter of course that the Potato or the Cauliflower should be manured, and we think none the less of the luscious Pear or the fine Grape because we know that such sordid things as manures have been required to bring it to perfection. And if the Chrysanthemum or Dahlia requires manure to bring it to the zenith of its beauty, we need not hesitate to apply manures or fertilisers to our alpine flowers, provided we are assured that they will benefit thereby.

We are by no means discomfited when we are told that these plants do not require or receive this in their own homes away up on the mountains. If they do not receive animal manure they often have fertilisers from other sources. In our rock gardens leaves and other vegetable matter are removed frequently from about the plants, whereas, if we could allow these to remain they would supply some form of nourishment for the plants. Of course, both tidiness and also the safety of the flowers from the attacks of slugs, which would hide among this decaying matter, compel us to clear away this, and the plants do not thus receive their natural supply of fresh nourishment. There is thus no sound argument against the fertilising of alpines by means of animal or artificial manure, and many have followed the practice of manuring their rock plants which were showing signs of decadence, with satisfactory results.

Animal manure has been scouted as unnatural for alpines; but, after all, when well decayed, it differs little from decayed vegetation, and cow-manure, well-rotted until the stronger elements

have been eliminated, is most valuable for many plants which require stimulating, if mixed with fine loam and sand and worked in and about the base of the plants. Stable manure, also, if old and thoroughly decayed, may be mixed in the same way. Bone-dust is also of great benefit to subjects which like lime, and a mere pinch of almost any of the good artificial fertilisers sold by reliable firms will often give just the stimulus required by plants which have exhausted, or nearly so, the nourishment in the soil to which they have been anchored so long.

The loss of some plants is entirely due to the starvation they have to encounter, and in our moist climate these alpine plants appear to draw more strongly upon their resources than away on the high mountains, where they are generally much dwarfer and less vigorous at first than with us.

In thus advancing the views that manures may be, and sometimes are, valuable to alpine flowers, one must guard carefully against the supposition that all require this aid, and also that every kind of manure will suit these. Nor must it be accepted as part of the writer's opinion that this manure should be applied freely and frequently. With such subjects the greatest care is necessary, and a tiny pinch of such fertilisers as that of Messrs. Clay, for instance (I am naming this as a well-known fertiliser which serves as an example of a most useful class), will be sufficient to do good to most alpines which need it for a whole year. Dried, very old cow-manure is less powerful, but even with it a mere modicum once a year, mixed with soil and sand as already mentioned, will be valuable for many plants, but would, if frequently and plentifully supplied, prove harmful to the flowers we wish to help. Bone-dust, again, as indicated, is very helpful to many things; but its nature is harmful to some plants which object to lime, and these should be supplied with some other manurial matter, such as the old cow-manure suggested.

That this manuring is beneficial may be seen by a few experiments with established plants, for it is only these which may be benefited by it. For example, old plants of Campanula pusilla may be improved almost beyond recognition by giving them some bone-dust well mixed among the leaves and watered in. In a short time the leaves are more healthy, the plant becomes more vigorous, and the flowers, which are on taller stems, are larger, and the entire aspect of the plant is changed for the better. It is only right here to say that increased size is not always the thing to be desired with alpines, but if we find they do better we need not hesitate to apply the most beneficial treatment.

A useful fertiliser for alpine flowers, which has been employed with advantage for many years by a specialist is composed of eighty gallons of water in which has been dissolved 90 grains of nitrate of lime, 90 grains of sulphate of magnesia and the same quantity of nitrate of potash. This is applied once a year in summer to the alpines, and a little extra strength in the solution has been proved not to be harmful to most alpines. In applying cow-manure it should be dried and powdered fine and sprinkled about the plants in spring, or mixed as previously suggested.

The whole subject of manures for alpines is one of considerable importance, and its further consideration by chemists and cultivators would probably be helpful and would, in all likelihood, be a great service to growers of alpine plants in this country. S. Arnott.

THE NEW ROSE RHEA REID. (*Natural size.*)

THE ROSE GARDEN.

NEW HYBRID TEA ROSE RHEA REID.

Liberty, Richmond and Rhea Reid are three good dark red Roses that were much wanted in the Hybrid Tea class. Not only were they introduced in the above order, but they are improvements one upon the other so far as open ground culture goes. It is difficult to select a Rose of finer growth than Rhea Reid or one more hardy. Although only sent out last season, it has stood an indifferent summer and a very severe winter and spring. It is scarcely so deep a red as Liberty, but it is larger and fuller, while in growth it is far ahead and to all appearances much less likely to die back. Liberty is cut up almost as badly as Mrs. W. J. Grant—one of its parents—with us, and Richmond has suffered; but Rhea Reid has faced the frost untouched, and we experienced over 30°. All three varieties are growing side by side. As a red Rose this must rank very high for many years. It is very sweet-scented, carried boldly upright and lasts a long time. The deep red of the Hybrid Perpetuals is secured, with freedom of growth and flower found in the pick of the Teas and their hybrids. It is difficult to name a more hardy and all-round useful Rose. I was much interested in it during the past summer and autumn, while under glass it has gained favour month by month. A small plant in front of me now carries six flowers, which have been more or less open for ten days, have been taken to London and still look promising for another week or so. It was introduced in the spring of 1908 by the raiser of Richmond. The last named is perhaps rather better in shape, and certainly the best in the bud stage or even when half-opened.

Sussex. A. P.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Sweet Peas that were raised in pots and have been properly hardened off may be planted out now in the South and Midlands. It is wise to plant in a shallow trench or basin, according to whether they are to be grown in rows or clumps, as this will afford slight protection from cold winds. Further

I.—A SUITABLE GROWTH FOR MAKING INTO A CUTTING.

protection, should the weather prove very cold, can be afforded by placing small, twiggy sticks to the plants, and these will also answer for the primary supports. In any case it is better to place these small sticks in position first, and let the plants reach the tops of these before putting in the final supports. Those sown in the open about the middle of March will now be up and growing away freely, and a keen watch must be kept for slugs. Dusting around and over the plants with sifted coal-ashes is the best and simplest preventive. Freely stir the soil between growing bulbs which are not yet in flower; any that are flowering and need supports should have small green stakes placed against them and the flower-stems neatly tied to these. A good bulbous plant for Rose-beds is Galtonia (Hyacinthus) candicans. This pushes up a tall, stout flower-stem, which is clothed in autumn with white, pendent, bell-shaped flowers. The bulbs may be planted about 4 inches deep and 1 foot apart after the Rose pruning is completed.

Vegetable Garden.—Sow more culinary Peas to succeed those put in earlier. Slugs are very fond of the young plants, which should be protected with coal-ashes as advised for Sweet Peas. Also make other sowings of Cabbages, Cauliflowers and Broccoli for autumn use. Kales, Savoys and Spring Broccoli may be left until the end of the month. Onions that have been raised in frames and thoroughly hardened off may now be planted out, especially if they have to be lifted from boxes or pans, as small plants take to the soil better than large ones. It is a good plan to dip the roots in a thick puddle of soil before planting; those in pots will, of course, move without the above precaution being necessary. Plant from 4 inches to 6 inches apart in rows 10 inches asunder, unless the bulbs are required for exhibition, when allow twice the distance between the plants and make the rows 15 inches apart. Make the soil firm around the roots. A general planting of second early Potatoes should now be made; 18 inches between the rows and from 1 foot to 15 inches between the plants is a suitable distance to observe. I prefer taking a hole out with a spade for each set, as this is infinitely better in most soils than using a dibber.

Fruit Garden.—Vines in ordinary greenhouses will now be growing freely, and care must be taken to maintain the atmosphere of the house in a moist condition. Syringe the plants every morning and afternoon, and shut the house up about 3 p.m., so as to husband the sun-heat. Ventilation must be carefully done, so as to avoid draughts. In earlier Vines, where the bunches have formed pinch the shoot back to within two leaves of the bunch, and so concentrate the energies of the plant to the fruit. Outdoor Vines will now be sprouting, and it will be necessary to limit the side or lateral shoots to one to each spur, leaving the strongest and best-placed one of the two that will come if pruning was properly done.

Greenhouse and Frames.—Now that the weather is warmer, green fly will be increasing rapidly, and to keep it in check it will be necessary to vaporise at least once a fortnight. There are many excellent vaporising substances and apparatus now on the market, and the beginner in gardening should obtain some of these. If the directions supplied with them are faithfully carried out they are perfectly safe and effective. The popular winter-flowering Begonias, such as Gloire de Lorraine, that were cut down after flowering will by now have made new growths some 3 inches long, and these make excellent cuttings for perpetuating the stock. Cut each squarely beneath a joint, trim off the lower leaves and insert them firmly in a mixture of loam, peat and silver sand in equal proportions and finely sifted. Then plunge in a deep box, partly filled with Cocoanut fibre refuse, in the warmest corner of the greenhouse, and cover with a pane of glass; this forms a rough but useful propagating case. Water very carefully until the cuttings have rooted. H.

HOW TO GROW GOOD FRENCH BEANS.

THERE is scarcely a household in the country where a good dish of well-grown French Beans is not welcome, and as the plants are comparatively easy to cultivate to a high state of perfection, they are just the thing for the beginner in gardening to try his 'prentice hand on. As for all other crops, a deeply worked soil is essential, and if this has been moderately well manured so much the better; good results cannot be expected from ground that is poor and shallow.

Where a cold frame is available, seeds may be sown therein at once, as by so doing plants that will crop a week or two earlier than those sown in the open will be obtained. Sow in 4½-inch pots, two seeds in each, or even in boxes 3 inches deep, and keep the plants perfectly cool and well ventilated until planting-out time, which will be about the end of the second week in May.

It is of little use attempting to sow in the open until the end of April or the first week in May, as the plants cannot stand the slightest frost. For the dwarf varieties 18 inches is a good distance apart to make the rows, allowing 1 foot to 15 inches between the plants; but for climbing sorts the rows will need to be 4 feet asunder. Sow two or three seeds at each station, and when the plants are well up thin to one at each place. Slugs are exceedingly fond of the young plants, which must be freely dusted when the leaves are damp with coal-ashes to prevent devastation by these pests. As growth advances, routine work will consist of hoeing between the rows frequently, and should the weather prove dry a mulching of thoroughly rotted manure and frequent waterings will be of the greatest assistance. If these details are attended to, and the pods are kept closely picked as they become ready, the plants will continue to crop over a long period.

Varieties are now numerous and good, and it is most difficult to make a selection without leaving out some excellent sorts. They are represented by three distinct types, viz., Climbing (not the ordinary Scarlet Runners); Waxpod or Butter Beans, some of which are also climbing; and the ordinary dwarf French Bean. In the first section, Webb's Excelsior, Tender and True, Veitch's Climbing and Carter's Successor are all superb. Of Butter Beans, Sutton's Golden Waxpod, Webb's new Stringless Dwarf and Mont d'Or, a climbing variety, can be recommended. Of the ordinary dwarf French Beans, Sutton's Superlative, Webb's New Abundance, Canadian Wonder and Sutton's Evergreen are first-class, and the beginner may select from the above without hesitation.

SPRING PROPAGATION OF TRICOLOUR AND VARIEGATED FOLIAGED ZONAL PELARGONIUMS (GERANIUMS).

BEFORE hardy flowers became so popular for embellishing our gardens, the tricolour Geraniums, as they were then called, as well as other Zonal Pelargoniums with variegated foliage, were much sought after and highly esteemed by those who desired to make the most of their gardens during the summer months. Although these plants are not so eagerly desired as they were in the earlier days referred to, there are still many who would regard their display as incomplete without a representation of a few of the better sorts. A matter for congratulation is the fact that the flowers of these plants are much better than they were when the richly coloured foliage of the tricolour and variegated sorts were regarded with favour chiefly on account of their foliage

2.—THE SAME GROWTH PREPARED FOR INSERTION. NOTE THAT IT IS CUT THROUGH BENEATH A JOINT AND THE LOWER LEAVES REMOVED.

alone. Many growers now prefer cultivating the plants for greenhouse and conservatory embellishment.

We now have to raise a stock of plants, and if we are to achieve any real success we must proceed without delay to get in a supply of cuttings of a desirable kind. The beginner should remember that the days are now lengthening to a very appreciable degree, and the sun is attaining greater power in consequence. These are factors in propagation that tend to success, and full advantage should be taken of them.

3.—A YOUNG ROOTED PLANT GROWING IN A 3-INCH POT.

Within the last few weeks our old plants have made very satisfactory growth, and many of them have developed shoots that should make ideal cuttings. A careful inspection of the old plants will reveal many sturdy, short-jointed growths of the character shown in Fig. 1. To insert the growth just as it is represented in the illustration would be to court failure. An inspection of the first illustration shows what a large number of unnecessary leaves are present on the shoot. These leaves must be reduced and the bracts that adhere to the stem of the cutting be removed. A careful comparison between Figs. 1 and 2 will give a very good idea how the cuttings should be prepared before inserting them in suitable soil.

The prepared cutting in Fig. 2is the same growth as shown in Fig. 1. The cuttings should not be too long; 4 inches is a good length. A sharp knife must be used to prepare them, and after cutting through the stem below a joint the lower leaves should be removed in their entirety and the bracts taken off to complete the operation. Equal parts of good fibrous loam, leaf-mould and coarse silver sand, or, failing this, clean road grit, and this passed through a sieve with a half-inch mesh, will make a very excellent soil for striking cuttings in. These ingredients should be well mixed before using. If first-class plants are desired, by all means insert the cuttings singly in 2½-inch or 3-inch pots. These pots should be washed quite clean and thoroughly dried. Crock with pieces of broken potsherd or broken oyster shells, covering the hole with a curved piece of either material. A few smaller pieces should be placed over this, then a small quantity of the rougher siftings of the soil, and, finally, fill in to the rim of the pot with the prepared compost. The latter should be just moist enough so that with a little pressure of the hands it holds together, but which readily falls to pieces when dropped on the potting-bench. With a small dibber about the size of an ordinary lead pencil make a hole in the centre of the potful of soil about 1½ inches deep. Place a inch of silver sand in the bottom of the hole and then insert the cutting, taking care that this rests on the soil in the bottom of the hole made for its reception. A smart rap on the potting-bench will settle the soil, and with a firming of the compost by the aid of the thumbs round the edge of the pot the operation will be completed. Water overhead with clear water from a fine-rosed can to settle the soil round the cuttings. Place the pots of cuttings in a glass house where the temperature can be maintained at about 55° to 60°. In such conditions they will root in a week or two. Avoid keeping the surface soil wet while that in the bottom of the pot is dry. The soil should be just moist throughout; if too wet the cuttings will damp off.

It will then be necessary in a little while to transfer the rooted cuttings to shelves near the glass, where a free circulation of air will encourage a sturdy form of growth and the foundation of bushy plants be carefully laid, as seen in Fig. 3. When nicely rooted some growers pinch out the points of the growths to induce the plants to make a bushy form of growth. In a little while the young plants will fill their small pots with roots, making it necessary to repot them in those measuring 4½ inches in diameter. The soil for this repotting should consist of two parts fibrous loam, half a part of leaf-mould and one part coarse silver sand or road grit. Break up the loam, &c., thoroughly, mix well and this will then suffice. Fig. 4 shows the plant in a forty-eight ((4½-inch) pot after the repotting.

D. B. C.

POTTING TUBEROUS BEGONIAS.

Those to be used for summer bedding will not require shifting on into larger pots. Those, however, which are to be grown in pots for the decoration of the greenhouse should be potted into larger pots when those in which they are already growing are becoming well filled with roots. Suitable sizes of pots in which to flower the plants are those 6 inches or 7 inches in diameter. A mixture of two parts loam, one part leaf-mould, with a little well-decayed cow-manure and sand added is a suitable compost for the final potting.

THE TOWN GARDEN.

We may reasonably expect the weather to be much milder in the middle of April than in the middle of March. It has been impossible to attend to certain work in the garden as it ought to be attended to, and consequently there will be more to do now than is usual at this season. The town gardener will be very busy, as he always wishes to have a bright display of blossom as early as possible in spring and also to get the necessary work forward in connexion with the summer bedding-out.

The Garden Frame.—Every garden frame must be made as much use of as possible at the present time. Even a roughly made one is very useful. Tender seedlings are thus protected, and they continue to grow steadily; then, when the weather is really warm and growth of all kinds is free, that of protected frame plants is also up-to-date. Zonal Pelargoniums, Heliotrope, Ageratum, Lobelia, Gazanias, Mimulus, Salvias and half-hardy annuals are the principal kinds of plants that the town gardener must keep carefully protected in frames. Where boxes, pans and flower-pots are plentiful, the seedlings ought to be grown in them, because it is then very convenient to transfer certain plants from one frame to another, or even to place them in the open air as required, while other kinds are left under the protection of the frame. Where all are planted out in beds in a frame, it is necessary to expose all alike when the hardening process commences. Do not hesitate on this account, however, to put out the seedlings in prepared beds in the frame. Use good loam and sweet leaf-soil in equal proportions and sufficient sand to make it all porous. Also be sure to make the compost moderately firm. At first the tiny seedlings will not appear to grow rapidly on account of the firmness of the rooting medium; but later on they will grow well and make very good plants, being robust and bushy, and such are the best for planting out in the flower garden.

Sowing Seeds of Hardy Annuals.—Having duly prepared the outside beds for the reception of the seeds, sow some of the latter at once. The resultant plants blossom where the seeds were sown, so that it is advisable to have the tallest-growing kinds near the back of the border, the medium in the centre and the dwarf in front. Clumps of plants are the most effective, and these should vary in width from 1 foot to 3 feet across, according to the kinds being grown. Sow the large seeds deeper than the small ones, and, though it is advisable to sow fairly thickly on account of probable loss through the ravages of slugs, thinning out must be done in good time, that is, before the plants get overcrowded. The following are suitable kinds to sow: Calliopsis, Clarkias, Chrysanthemums (annual), Convolvulus minor for beds and C. major for climbing, Cornflowers, Eschscholtzias, Godetias, Jacobea, annual Larkspurs, Linums, Love-lies-Bleeding, Linarias, Lupinus, Night-scented Stock (Matthiola bicornis), Mignonette, Nasturtiums, Poppies, Sweet Sultans, Virginian Stock and Sunflowers.

Runner Beans.—There are many bare walls and fences in town gardens, and it is often a matter of much difficulty to decide how such can be suitably covered in a very short time with climbing plants. Of course, there are plenty of suitable climbing plants which are permanent, but it takes time to get the whole of the walls covered with their branches. Such plants may be put in next autumn, but in the meantime the walls would remain bare unless a quick-growing climber is put in. Sweet Peas are very suitable in many instances, and so also are Runner Beans. In sunny positions the plants not only grow freely and cover the walls with very handsome leaves, but they bear flowers and pods in profusion, and are thus both ornamental and useful. It is rather too early to sow many seeds; a fortnight hence will do where the positions are cold and draughty, but in the sheltered spots put in some seeds at once. The chief object being to secure plenty of healthy leaves which will serve as a screen, it will be advisable to mix a nice quantity of well-rotted manure with the soil so as to promote a rapid growth of foliage. The plants may be supported by strands of string or sticks.

Avon.

4.—A LARGER PLANT POTTED INTO A 4½-INCH POT.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Flower Garden.

NEWLY-PLANTED TREES AND SHRUBS should be made secure against damage by wind and the soil over and about the roots made firm when in a suitable condition, after which slightly loosen the surface and follow with a good mulching of short manure. Large, choice specimens will benefit greatly if syringed two or three times daily in bright weather and afforded protection from the strong sunshine till the roots have taken to the new soil; watch them carefully should we experience a spell of dry weather, and water thoroughly if necessary. Rhododendrons and Hollies may still be planted successfully, care being taken to have the stations prepared and the planting done as quickly as possible, so that the roots may not be exposed longer than is really necessary.

Vases.—Plants for vases should be grown on to a good size in pots, so that when planting-time arrives large vases may be quickly filled and the effect almost immediately produced. Heliotropes, Fuchsias in variety, Pelargoniums and Marguerites make capital plants for this purpose.

Propagation.—Push on the increasing of all kinds of plants of which there is likely to be an insufficient quantity. Box off Lobelias, Iresines, Verbenas and other seedlings before they get spindling and weak by overcrowding. Harden off as fast as possible Pelargoniums and other plants that have made good headway in heat; when transferred to the cold frames cover up well at night if there is likely to be any frost, and give air very carefully till the plants have become hardened.

Fruit Garden.

Peaches and Nectarines.—Where these have been heavily protected a partial removal of the protecting material may now take place, providing the weather is mild, but do not dispense entirely with the protection until all danger of late frost is past. As soon as the young growth is about 2 inches long, a few of the front shoots and those behind the wood may be removed. Disbudding, however, at this early period (outside) must be done with great care and judgment, only removing a few here and there where the shoots are very thick. Be careful at all times to preserve the best-placed growths for filling up space and for fruiting next season. Disbudding must extend over a long period and should never be too severely carried out at any one time. Examine the borders where the trees are protected with glass coping, and water if required. The soil in which wall trees are growing is very deceiving at times, and is apt to get much too dry to be good for the trees. If green aphis puts in an appearance, as soon as the fruits are set syringe well with Quassia Extract, which is one of the safest insecticides when the fruits are small.

Figs.—If not already pruned as advised, these may now receive attention. Be careful to preserve sturdy, fruitful shoots, and shorten only those not required to produce shoots for another year. Trees in good bearing on south walls will be all the better for a good top-dressing with fresh, sweet soil.

Kitchen Garden.

Carrots.—The main crop of these should now be sown on well-tilled land; sow the seed thinly in drills 1 inch deep and 12 inches to 14 inches from row to row. The varieties are numerous, but I generally depend on Nantes, Intermediates and Altrincham; the latter, although long, is small cored and of good flavour. If the ground is in good condition there will be little to be done in the way of preparing the beds, a good rake over and a dressing with soot sufficing.

Beetroots may now be sown. The land for this crop should be well worked, but need not be too rich to encourage coarseness. Sow the seed in drills 18 inches apart and 2 inches deep.

Onions.—The land for these has been in a very wet and bad state, consequently sowing has been much delayed, but good Onions may be grown from seed sown any time in April. Good dressings of soot and wood-ashes will prove highly beneficial to the crop, and the land should be rich and firm. Plants raised from seed sown in boxes and forwarded in heat may be transplanted.

H. Markham.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

Pleasure Grounds.

Lawns and Verges.—Through bad drainage, excessive humidity of the district or poverty of the soil, grass areas at this season often present an appearance the reverse of pleasing. Where moss largely prevails, the whole surface may be first scarified with a well-worn iron rake, which will remove a considerable portion of objectionable matter without unduly damaging the grasses. After sweeping, grass seeds may be sown in quantities in accordance with requirements and be covered with finely sifted soil, with which bone-meal, superphosphate, or some other slow-acting approved kind of manure has been incorporated, spreading it evenly and working it about the crowns of the existing plants, finishing off by passing a heavy roller over all. Birds are apt to be troublesome, but if means are at hand, by way of a hose-pipe, to keep the surface moist for a few days, their attentions are thereby discounted and germination of the seed is accelerated.

Fruits Under Glass.

Vineries.—Where late Hamburghs are a speciality the Vines may be allowed to advance at will, but houses containing all other varieties should now be closed early in the afternoon to husband sun-heat, and the rods as well as the interior parts of the structures be syringed or sprinkled to generate a moist atmosphere, thus assisting the buds to break freely and evenly. Early started Vines will require frequent attention to regulate growth; never allow this to get so far in advance that much has to be removed at one time, thereby occasioning a check to the roots. Damping the border and pathways at closing-time with diluted liquid from the farmyard, or a slight sprinkling of the same with concentrated Vine manure, will add vigour and lustre to the foliage and prove inimical to insect pests. Thinning of the berries should be undertaken when these are the size of Mustard seed, and although at the best a tedious operation, a careful study of the varieties and the size attained by the individual berries in former years will give confidence in working which favours good workmanship and expedition.

Planting Vines.—This where contemplated may now be done, providing the border has been sufficiently long completed to have become consolidated and the plants are visibly making growth. Plants grown from eyes this season and planted out before they become in any way confined at the roots are undoubtedly best; but as few places have convenience for doing this, one year old plants are resorted to. These grown in slight warmth until the buds show signs of breaking are then in good order for planting, which is done by shaking away the greater part of the soil from the roots, preserving the more fibrous of these and severing any of undue length. Plant firmly and cover the roots with at least 2 inches of soil, and use tepid water more or less in accordance with the state of the border. Afterwards make the most of sun-heat, assisted by artificial means, to maintain a humid temperature of about 55° to 60°, with a considerable rise by day.

Flowering Plants.

Primulas and Cinerarias.—For autumn flowering some seeds of each should be sown, using for the purpose pans nearly filled with a light, free-working compost, and cover the seeds slightly. Place in a warm house, cover with a pane of glass and shade from sunlight until the seedlings appear. The compact, large-flowering types of both are best for early use, while the stellata sections are excellent for spring and may be sown later on.

Hardy Annuals.—Frequent sowings of these are preferable to one, which is apt to give a flush of bloom, followed by a dearth before the season is past. Sow thinly in rows or patches in well-pulverised soil, guard against slugs in damp weather, and if necessary thin out the seedlings before they become crowded.

Half-hardy Annuals.—Salpiglossis, Schizanthus, Nemesia and several other excellent border flowers raised in boxes should be pricked out in frames before they become drawn, and when established be gradually exposed preparatory to permanent planting.

James Day.
(Gardener to the Earl of Galloway.)
Galloway House, Garlieston, Wigtownshire.

NEW PLANTS.

Odontoglossum percultum Cookson's variety. The large, massive flowers of this variety are of a dull violet purple hue, this being marbled and blotched with white, the reverse of the segments having a preponderance of creamy white. The labellum is rather broad and has yellow and dull scarlet splashes at its base. Shown by N. C. Cookson, Esq. First-class certificate.

Odontoglossum Sylvia Westonbirt variety.—This is a very prettily and distinctly marked form, the star-like flowers being pale creamy yellow, heavily blotched with large masses of brownish crimson hue. The labellum is of a much richer yellow colour, and at the base this is marked with rich crimson blotches. At the apex the clear yellow is unsullied. Shown by Lieutenant-Colonel Holford, C.V.O., C.I.E. First-class certificate.

Odontioda Ernest Henry.—This is quite the deepest-coloured member of these bi-generic hybrids that we have, and although the flowers are rather small and of poor shape, they are remarkable for their colouring, which is very rich dull crimson, the small labellum having orange yellow markings. Shown by H. S. Goodson, Esq., Fairlawn, Putney. First-class certificate.

Cattleya Schröderæ The Baron.—The sepals and petals of this fine variety are pure white, the large labellum having a white margin, then a quarter-inch wide band of bright rosy mauve, this being followed by rich orange yellow, which extends well into the throat, where another narrow band of even brighter mauve makes its appearance. In addition the flowers are of good size and form. Shown by Lieutenant-Colonel Holford, C.V.O., C.I.E., Westonbirt, Gloucestershire. First-class certificate.

Cattleya Schröderæ Irene.—This is a very large and beautiful form of a popular and well-known Orchid, being of a much deeper mauve colour than the type. The throat is marked with clear and very rich orange yellow, thus giving the flower a most attractive appearance. Shown by Mr. A. Jensen, Lindfield, Sussex. Award of merit.

Odontoglossum Dreadnought.—This is one of the very dark-coloured hybrids of which now many exist. The flowers are large and of moderately good form, the sepals and petals being of a rich glossy brown colour, the two petals having rich yellow markings at their bases, and slight flakes of the same colour appear on their margins. The labellum is yellow, marked

with brown, the pale yellow column being a conspicuous feature. The plant shown had one long raceme composed of thirteen fully developed flowers. Shown by Messrs. Sander and Sons, St. Albans. Award of merit.

Odontoglossum crispum Angela.—This, again, is a very richly coloured flower, the markings and shape of the flower being very regular. The pinkish white ground colour is very freely marked with large blotches of dull pale crimson, the labellum having a conspicuous yellow blotch at its base. Shown by N. C. Cookson, Esq., Oakwood, Wylam. Award of merit.

Cattleya Schröderæ Miss Alexandra James.—The sepals and petals of this variety are almost but not quite pure white, a faint flushing of pink showing through. The labellum is of the same colour, with the usual rich yellow patch extending well down the throat. Shown by W. James, Esq., West Dean Park, Chichester. Award of merit.

Lælio-Cattleya Frederick Boyle Kerchoviæ.—A very clear and refined-looking flower with long, narrow and acutely pointed sepals and broader petals, the former being pale blush and the latter white. The labellum, too, is very pale blush colour, with rich golden yellow in the throat. Shown by Sir Trevor Lawrence, Bart., Dorking. Award of merit.

Hippeastrum Magnificent.—A very fine crimson-coloured variety, in which the tips of the petals merge into a creamy white. It is both showy and distinct. Shown by Messrs. Robert Ker and Son, Liverpool. Award of merit.

Hippeastrum Marsus.—The flowers of this superb variety are intense crimson in colour, shading into maroon in the interior of the flower. Shown by Messrs. J. Veitch and Sons, Limited, Chelsea. Award of merit.

Saxifraga apiculata alba.—This should prove an invaluable plant for the rock garden or alpine house, being a counterpart of the type save in colour. The variety occurred simultaneously in both branches of the Guildford Hardy Plant Nurseries, a rather unusual circumstance we imagine in the case of so well marked a plant. The flowers are pure white and borne profusely on 3-inch high stems. The habit is free and excellent. Shown by the Guildford Hardy Plant Nurseries (A. R. Upton, proprietor). Award of merit.

New Rhubarb Dawes' Challenge.—This splendid Rhubarb was shown before the fruit and vegetable committee last year, when they did not consider it worthy of an award; but being shown in such grand condition again this year, it was duly honoured. The stout, solid, bright red sticks are some 2 feet in length and are produced in great profusion, and undoubtedly it is a splendid acquisition to the forcing varieties which already exist. The plants and sticks shown had been grown in the open, with protection, and were certainly very fine. We have tasted this variety, and its flavour is as good as its looks. Shown by Mr. J. E. Dawes, King's Lynn. Award of merit.

All the foregoing were shown before the Royal Horticultural Society on the 6th inst., when the awards were made.

LEGAL POINTS.

Removing trees (*Glory de Lorraine*).—It is clearly settled that at common law the occupant of an ordinary house cannot remove trees and shrubs he has planted, although he can remove certain other fixtures before the termination of his tenancy. If, however, it has been agreed in writing that the holding shall be let or treated as a market garden, the tenant can remove all fruit trees and fruit bushes planted by him on the holding not permanently set out, and, as regards those permanently set out, although he has no right of removal, he can claim compensation under the 1895 and later Acts.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Water Lilies from seeds (*Fülsack, Kingstown*).—The seeds may be sown in shallow pans filled three-fourths their depth with loamy soil and this just covered with water. The pans should be watertight and the water maintained at one level or thereabouts—that is to say, it must not overflow, or the seeds may be lost. The ordinary greenhouse temperature will do. The plants may take two, or possibly three, years before flowering. You might obtain the Vallisneria from any of the hardy plant dealers who make a speciality of aquatics—Mr. Amos Perry, Enfield; Mr. T. Smith, Newry; Messrs. Barr and Sons, Covent Garden; and others. The Mandrake requires a warm, favoured spot if grown in the open, and may be raised from seeds sown in sandy soil and given greenhouse treatment for a time. The plant is not difficult to raise if fresh seeds are available.

Plants for small garden (*Taffylander*).—If you desire a pretty and lasting effect, you cannot do better than plant single pink-flowered tuberous Begonias freely and furnish them with a background of Centaurea candidissima. The Begonias should be taken up in the autumn, and if so treated will last for years. The Ranunculus would do quite well, but its flowering season is short compared with the Begonia, and, like the latter, to do it justice the tubers should be lifted each year. If you have room you might try all three, first planting the Centaureas thinly over the surface and interspersing the others among them. In this way a successional flowering would result.

ROSE GARDEN.

Marechal Niel blooms discoloured (*Lady K.*).—We think that your surmise is correct. Evidently the Tobacco fumigation was too strong, although nearly always we find this discoloration occurs slightly whenever fumigation is done. We always try to have the plants clean of aphis before the blooms unfold, and should there be a few expanded or showing colour, we screw a piece of paper over them during the fumigation. The bloom sent appeared rather a sickly one, doubtless owing to the fact of the plant being planted so recently as November last, and it gave us the impression of a flower from a plant that had been over-watered. Roses should certainly be well syringed on all bright mornings up till the time the buds begin to show colour, when syringing should cease. When the blooms appear the atmosphere should not be overcharged with moisture, as this is liable to injure the delicate petals. It is always rather difficult to grow Roses in a house with other subjects, as the moisture needful for one may not quite suit the other. As soon as your plant has finished flowering you must encourage new growth by applying atmospheric moisture freely, and also afford plenty of heat. Of course, in May and onwards the solar heat will be sufficient. The aim should be to obtain a good new growth on this Rose before September; then it has several weeks to ripen, a detail that materially assists a good blooming the next year.

Dorothy Perkins with unhealthy growths (*G. Henry*).—We do not consider there is any actual disease in the growths of your Dorothy Perkins; but we believe the brown spots are due to the very pithy, immature wood, brought about possibly by a soil too rich or abounding in some ingredient that is not beneficial to the Roses. As you have so many of the plants affected in the same manner, we advise you to have them transplanted at once and replant in sweet, healthy soil. This Rose flourishes best in a soil not too rich, one in which it can produce good solid wood. We do not know the nature of your soil, but it would appear to be wanting in solidity. Make up a fresh bed in which good loam is placed with about one-fourth its bulk of old hot-bed manure. Avoid the use of any artificial manures. If you have doubt about any of the plants being sound, replace them with good own-root plants. It is not too late to do this even up till the end of April.

THE GREENHOUSE.

Culture of Tuberoses (*V. A. S.*).—You have certainly thought out a very ingenious idea for giving your Tuberoses an increased amount of heat, but we very much doubt whether it will prove successful. As the plants grow it will be difficult to keep up the heat, and that is where we think you are likely to fail. Though bottom-heat is generally recommended for Tuberoses, it is by no means absolutely necessary for their successful culture. They may without difficulty be grown in a greenhouse such as yours with a temperature of 60° or thereabouts. Of course, they will be later in flowering than if they are grown in more heat, but the blooms will be equally good. If they are good bulbs one will be sufficient for a pot 5 inches in diameter, or three may be put in a 6-inch pot. The bulb should be buried up to the neck in the soil, which must be pressed down firmly. A compost of three parts loam to one each of leaf-mould and dried cow-manure, with a little sand, is very suitable for Tuberoses. Previous to potting the bulbs should be examined and any offsets removed, as they will only push up leaves. If the bulbs when potted are placed in the greenhouse, they should at first be given only sufficient water to keep the soil slightly moist; but when the roots get active more water must be given. The leaves first make their appearance and afterwards the flower-spike is pushed up. When growing a good light position in the greenhouse must be given them, otherwise the stems will grow up weak and flower badly. When the stem makes its appearance an occasional dose of liquid manure will be helpful. Bulbs once flowered are useless for another year and may be thrown away.

Chrysanthemum leaves for inspection (*Miss E. F. B.*).—Your Chrysanthemums are very badly attacked by one of the leaf-burrowing insects, such as are so troublesome to cultivators of the Marguerite. Its ravages seem greatly on the increase, for we have had many examples from different plants forwarded to us from various parts of the country. The little grubs are the larvæ of a tiny fly, which punctures the leaves and deposits her eggs therein. As soon as they hatch the grubs commence their work of destruction. Badly infested leaves should be picked off and burnt, and where these pests are not so numerous they may be killed by a pinch between the finger and thumb. Besides this a sharp look-out must be kept for the little flies, which should be killed as soon as possible. Spraying the plants with Quassia Extract has been recommended in order to prevent the females from depositing their eggs on the leaves. A very good book for your purpose is "The Book of Garden Pests," by R. Hooper Pearson, F.R.H.S. It can be obtained from the Publisher, 41, Wellington Street, Strand, W.C.

FRUIT GARDEN.

Pruning an Apple tree and some Black Currant and Gooseberry bushes (*N. Faulkner*).—You should proceed with caution in the pruning of your neglected Blenheim Orange Apple tree, or you may easily spoil the chance of a good crop next year. All you should do is to examine the tree carefully to find out the weakest and most sickly looking branches, cutting these off no matter what part of the tree they are in, and if there are any dead branches, these, of course, must be cut away, the object aimed at being to so thin out the branches that more air, heat and light may find their way among them, to the improvement of the health of the tree and the quality and weight of the fruit. There should be a distance

of from 10 inches to 1 foot between each main branch of the tree. If, after cutting the weakly shoots as advised, you think the tree is still too crowded with branches, go over it again carefully, cutting a few of the weakest out again, and you will have done enough for this winter. Serve your Black Currant and Gooseberry bushes in the same way.

Apples to graft on the stocks of Russet Apple trees from twenty-five to thirty years old (*H. W. P.*).—Sturmer Pippin would be very suitable. It is one of our best late dessert varieties. Cox's Orange Pippin is one of the very best dessert Apples; you cannot have too many of it. If preserved under cool conditions through the winter, in a temperature of from 40° to 45° Fahr., it may be had in excellent condition for dessert from early in November to the end of March. Blenheim Orange is another excellent sort which is suitable for dessert or cooking, and the same may be said of Barnack Beauty. Duke of Devonshire is an excellent late dessert variety. Should you wish for a few late varieties for cooking, there is nothing better than Lane's Prince Albert, Newton Wonder and Bramley's Seedling. These are coarser growing and not so well suited to the stock you mention.

MISCELLANEOUS.

Names of fruit.—*A Reader of "The Garden."*—Radford Beauty.——*L. L. Twyford.*—1, Mère du Ménage; 2, Peasgood's Nonsuch; 3, Dutch Mignonne; 4, Calville Rouge; 6, Sturmer Pippin.

Names of plants.—*Mrs. Patton.*—Erica persoluta alba (not hardy). ——*The Rev. D.*—Maxillaria species, material insufficient to determine which.——*C. A.*—1, Daphne Mezereum; 2, Calamintha Clinopodium. (?).

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

At the fortnightly meeting held on the 6th inst. there was a remarkably good display of flowers, and some interesting collections of salads were also staged. The magnificent exhibit of Orchids shown by Messrs. Armstrong and Brown, and which is described below, was truly wonderful and attracted much well-merited attention.

Orchid Committee.

Present: Mr. J. Gurney Fowler (chairman), Messrs. James O'Brien, de B. Crawshay, H. Little, W. Boxall, J. Forster Acock, F. J. Hanbury, W. Waters Butler, H. J. Chapman, W. P. Bound, F. Menteith Ogilvie, R. Thwaites, W. H. Hatcher, J. Cypher, J. Charlesworth, H. G. Alexander, W. H. White, H. A. Tracey, H. Ballantine, A. Dye, Gurney Wilson, J. Wilson Potter and Walter Cobb.

The magnificent group of Orchids staged by Messrs. Armstrong and Brown, Tunbridge Wells, occupied the entire end of the hall and was about 10 feet in width. Comprised chiefly of splendidly grown specimens of Dendrobiums and Odontoglossums, this was, without doubt, the finest group ever staged at the hall. The arrangement, too, was superb, a series of semi-circular mounds and bays being the general style. Two of the mounds, one at each end, were composed entirely of grand plants of Dendrobium nobile virginale, while the centre mound was made up of Odontoglossum crispum varieties, Cymbidiums, a few Cypripediums, Cattleyas and other kinds. Then in the bays grand examples of various coloured Dendrobiums, Cypripediums of unusual sorts, Masdevallias, Brasso-Cattleyas, Lælio-Cattleyas and hosts of other good subjects were staged, a very good plant of Dendrobium chessingtonensis occupying a prominent position. Certainly no praise is too high to bestow on this remarkable group, which reflected the greatest credit on those responsible for the culture of the plants and the arrangement of the whole. Gold medal.

H. S. Goodson, Esq., Fairlawn, Putney (gardener, Mr. Day), staged a nice little bank of good plants, these being edged with small Pteris. Odontioda Bradshawiæ, various forms of Odontoglossum crispum, O. lambeanianum Goodson's variety and Cattleya Schröderæ were some of the best specimens. Silver Flora medal.

The small group shown by Messrs. James Veitch and Sons, Limited, Chelsea, contained some well-flowered specimens, among which we noticed two fine tri-generic hybrids, viz., Brasso-Cattlælia Elatior, a beautiful new flower with pale mauve sepals and petals and a finely crested lip marked with carmine and rich yellow; and Brasso-Cattlælia Veitchii, a very large flower with long, narrow sepals and very large petals, with a remarkably large lip of deep carmine and yellow colour. In addition there were good plants of Odontoglossum crispum varieties, Cymbidium insigne Sanderi and Cattleya Schröderæ, the whole making a very fine and interesting group. Silver Flora medal.

From Messrs. Charlesworth and Co., Hayward's Heath, came a choice little group that was full of interest. Among other excellent plants were a very large-flowered Cœlogyne pandurata, Lælio-Cattleya Elinor, a fine form of Odontoglossum lambeanianum, Angræcum sesquipedale, Phaius Norman, Brasso-Cattleya Marathon, a remarkably fine dark variety of Lælio-Cattleya dominiana, a good specimen of Dendrobium densiflorum and Odontoglossum Ossulstonii. Silver Flora medal.

Messrs. Hugh Low and Co., Bush Hill Park, Enfield, staged a small group of well-grown plants, which included good examples of Dendrobium nobile nobilius, D. n. ballianum, D. n. virginale, Cattleya luddemaniana Stanleyii, Cypripedium Wm. Lloyd, C. Rossettii, Cœlogyne pandurata and Lælio-Cattleya Myra. Silver Banksian medal.

Messrs. Cypher and Son, Cheltenham, staged a small group of well-grown Dendrobiums, this comprising many good and interesting species and varieties.

From Messrs. J. and A. A. McBean came a pretty group of very floriferous plants, among which we noticed some remarkably good Odontoglossums, these showing a wide range of form and marking. Silver Flora medal.

Messrs. Sander and Sons, St. Albans, had a very fine collection of first-class plants, these being shown in the firm's usual style. Odontoglossum Dreadnought, Lælio-Cattleya bletchleyensis, Cœlogyne ocellata maxima, Epidendrum nocturum, Cattleya Schröderæ Niobe and many others were specially noticed.

Mr. M. Mertens, Ghent, was showing some of his fine Odontoglossum hybrids, these being of remarkably attractive colouring and very free-flowering. Silver Banksian medal.

From Mr. A. W. Jensen, Lindfield, Hayward's Heath, came a small group of Cattleyas and two or three Odontoglossum hybrids, the former being particularly good, a fine flower of C. Schröderæ Irene being of more than usual interest. Silver Banksian medal.

Floral Committee.

Present: Mr. W. Marshall (chairman), Messrs. C. T. Druery, J. W. Barr, R. C. Notcutt, J. Green, G. Gordon, J. Douglas, William Howe, C. R. Fielder, J. Jennings, J. F. McLeod, H. J. Cutbush, Charles Dixon, W. J. Bean, A. Turner, Charles E. Pearson, W. P. Thomson, E. H. Jenkins, W. J. James, J. Hudson and George Paul.

Messrs. Sutton and Sons, Reading, brought a very fine display of their pink-flowered Cinerarias in many delightful shades of colour. The range of colour embraced blush, crushed strawberry, rose, salmon and other intermediate shades of a very delightful character, the whole forming a colour scheme of rare beauty. Some hybrid Freesias in rose, orange and other shades were also noted in the group. Silver Banksian medal.

Messrs. William Paul and Sons, Waltham Cross, displayed Pyrus Scheideckeri with rosy pink plumes, P. angustifolius flore-pleno, P. Malus floribunda with Camellias and a delightful lot of Ceanothus veitchianus, the whole making a very charming group. Silver Flora medal.

Messrs. J. Peed and Sons, West Norwood, showed a pretty lot of alpines, succulents, Primulas and a pleasing bank of Caladiums and other plants. Silver Banksian medal.

Messrs. Wallace and Co., Colchester, had a pleasing alpine and rock garden exhibit, in which Tulip species, Viola gracilis, Fritillarias, Primula viscosa alba, P. v. Mrs. J. H. Wilson (a delightful hybrid alpine singularly free and profuse in flowering), Shortias, Iris reticulata, Anemone Pulsatilla, Daphne Cneorum and many other delightful plants were to be seen. Silver Flora medal.

Messrs. James Veitch and Sons, Limited, Chelsea, grouped a very delightful lot of Lachenalias, Rhododendrons, Laburnums, Pyruses, Wistarias, Jasminum primulinum, Philadelphus and other plants, the whole forming a group of rare beauty and utility for the season of the year. Messrs. Veitch also had an interesting exhibit of plants, in which were blue Hydrangeas, Hippeastrums in variety, Clivias, Gerberas in many charming shades, Clianthus puniceus and C. p. albus, a delightful lot of Anthuriums, some charming examples of Boronia megastigma and a lovely lot of Azalea indica in many shades of white, rose, salmon and similar plants. Silver-gilt Flora medal.

Messrs. H. B. May and Sons, Edmonton, showed groups of the Polyantha Roses, Pelargonium Clorinda, Clematis in variety and a large example of Ceropegia Woodii with endless tubers attached thereto. Silver Flora medal.

A pretty exhibit of Hepaticas, Drabas, Primula denticulata, P. d. alba and blue Primroses came from Messrs. George Jackman and Sons, Woking, the whole presenting an interesting feature. Silver Banksian medal.

Mr. Charles Dawson, Gulval, Penzance, staged a delightful lot of new Narcissi, among which Vivandiere, Armorel, Tita (a fine incomparabilis with rich cup), Homespun, Diogenes and many seedlings were noted. Silver Banksian medal.

Messrs. R. Gill and Sons, Falmouth, had a very fine assortment of Rhododendrons, such as R. barbatum, R. b. carneum, R. Harrisonii and many others, the flowers being of exceptional brilliancy.

Messrs. Paul and Son, Old Nurseries, Cheshunt, had a few interesting plants, such as Deutzia discolor major, D. d. carnea, D. d. acuta, Mezereons in variety and the new Rambler Rose Lady Godiva, which is of a rosy pink hue and very charming

Sir Everard Hambro, K.C.V.O., Hayes Place, Kent (gardener, Mr. Grandfield), showed a very fine group of Primula verticillata, the plants being well grown and abundantly flowered.

Mr. G. Reuthe, Keston, Kent, brought a delightful lot of alpines in pots, and particularly Saxifrages in great variety, Shortias, Daphne blagayana, Rhododendrons, Hepaticas, Dog's-tooth Violets, Primula viscosa alba, Anemone vernalis and many other plants of interest and beauty. Silver Banksian medal.

Messrs. William Cutbush and Sons, Highgate, had a delightful display of alpine Primulas, Hepaticas, Primroses, Anemone Pulsatilla, Omphalodes verna, Sanguinaria canadensis and the like, together with forced shrubs, Lilacs, Azaleas, Magnolias and other plants. Boronia megastigma was also charming, and not less so Wistaria sinensis and the pretty coloured Pyrus Malus in variety. Messrs. Cutbush also displayed a very fine assortment of the Perpetual-flowering Carnations, many of the leading varieties being staged in excellent condition. Silver-gilt Banksian medal.

Mr. George Prince, Oxford, had an exquisite lot of Roses delightful in form and colour, among which we noted Lady Roberts, Souv. de Pierre Notting (a fine yellow), Mme. Jules Gravereaux (creamy white), Wm. Shean (pink), Maréchal Niel (very fine), Richmond, Clara Watson and others. The new Tea Rose Mrs. Sophia Neate (a rosy salmon shade) was also shown. Silver Flora medal.

Messrs. Lilly, Guernsey, displayed a fine lot of Narcissi in variety, also Anemones and other spring flowers.

The Guildford Hardy Plant Nursery had many choice plants, which included hardy Heaths, Lenten Roses, many choice Saxifrages, Primulas and other plants.

Messrs. G. and A. Clark, Limited, Dover, had a small rockery arrangement with grassed mounds arranged with hardy plants.

Miss F. W. Currey, Lismore, Ireland, had a choice lot of Narcissi from the open, M. J. Berkeley being particularly fine.

Major Lister, Waringlid Grange, Sussex (gardener, Mr. Baker), brought a fine display of Hippeastrums in white and red flowered varieties, many of these being of very large size. Silver Banksian medal.

Messrs. Barr and Sons, Covent Garden, showed a charming lot of Daffodils, among which King Alfred, Henry Irving, Mme. de Graaff, Albicans, Apricot, Lucifer, Eldorado (a rich yellow Ajax), Mrs. G. H. Barr (white Ajax), Sunrise, Admiral Makaroff (fine yellow) and others were noted. Choice alpines and early bulbous plants, Lenten Roses and the like were included in this excellent exhibit. Silver Banksian medal.

Lilies, Carnations and Roses were finely displayed by Mr. W. H. Page, Hampton, and all were in excellent condition. Silver Flora medal.

The Misses Hopkins, Shepperton, had a capital group of alpines on rockwork, such plants as Saxifraga sancta, S. apiculata, the alpine Primroses and Hepaticas, with many others, being finely displayed.

Messrs. H. B. May and Sons, Edmonton, had a capital group of Ferns, chiefly Polypodiums. Silver Banksian medal.

Messrs. Robert Ker and Sons, Liverpool, showed a few excellent varieties of Hippeastrum.

Messrs. Cartwright and Goodwin, Kidderminster, displayed a fine lot of Daffodils, such as King Alfred, Brigadier, Orangeman, Weardale Perfection, Pilgrim, Duke of Bedford, Evangeline, Fusilier, White Lady, Cosset and many more. A very charming exhibit of sterling varieties. Silver Flora medal.

Messrs. Hugh Low and Co., Enfield, had a capital lot of Carnations in the best commercial sorts, also a fine lot of Acacias and other greenhouse plants. Silver Flora medal.

Messrs. Carter Page and Co., London Wall, brought Violas and Tufted Pansies; and Mr. Robert Sydenham had a display of Freesias, Lily of the Valley and Daffodils in moss fibre.

Messrs. Cannell and Sons, Swanley, brought a very interesting lot of Begonias, chiefly winter and spring flowering species, in variety, the forms of B. manicata being very effective. Some good Cinerarias were also shown by this firm. Silver Banksian medal.

Messrs. R. H. Bath, Limited, Wisbech, brought Tulips, Daffodils and Chionodoxas in moss fibre.

Messrs. T. S. Ware, Limited, Feltham, arranged a superb bank of alpine plants in variety. Silver Banksian medal.

Messrs. Frank Cant and Co., Colchester, brought some excellent Roses, of which Queen of Spain, J. B. Clark and Lady Roberts were notable examples. Silver Banksian medal.

Mr. Burnett brought a fine lot of Carnations from Guernsey, these being of very excellent culture. Silver Flora medal.

Bakers, Limited, Wolverhampton, had a pretty rockery exhibit, in which Primulas and Saxifrages were charming features. Bronze Flora medal.

The display of Lilacs from Mr. L. R. Russell, Richmond, was very fine, white and coloured varieties being shown in superb condition. Silver Banksian medal.

Messrs. R. and G. Cuthbert, Southgate, had a magnificent display of forced shrubs, Magnolias, Azaleas, Lilacs, Wistarias, Pyrus and the like forming a feast of colour. Silver-gilt Flora medal.

Messrs. Carter and Co., High Holborn, had a lovely lot of the King Alfred Daffodil arranged as a centre with Tulips around, the whole forming a really magnificent display.

Messrs. Whitelegg and Page, Chislehurst, showed Cyclamens in variety, the well-flowered plants being taller than is usually seen.

Mr. C. J. Wakefield, 57, Wilton Road, London, S.W., was exhibiting various examples of his excellent Floral Aids, these being strongly made with the best copper and coloured green, so that there is no fear of rusting. In addition to the well-known weighted forms for broad, open bowls, he was showing Floral Aid No. 2, which is excellent for tall vases of all sizes, the bottom being so constructed that it can easily be made to fit any shaped vase. The wires, too, are pliable, so that they can be bent at any angle, and these aids certainly ought to be largely employed where floral decoration has to be done to any extent. When once arranged the water can be changed without disturbing the flowers.

Mr. H. C. Pulham, Elsenham, Essex, had a very pretty little rockery in the annexe, which was freely planted with such spring-flowering subjects as Muscari, Hepaticas, Ranunculus amplexicaulis, Saxifrages, Primulas, Heaths, Aubrietias, &c., the background being formed with miniature conifers.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

A GOOSEBERRY DISEASE AND ITS TREATMENT.

THERE is a disease which is causing considerable destruction in many gardens and plantations, almost as much, in some cases, as the celebrated American mildew (Sphærotheca morsuvae), but which is not nearly so well known as the latter. This is, doubtless, partly owing to the fact that there is not nearly so much apparent injury done to the Gooseberry bush by this disease, though the ultimate effect may be very little less deadly. During the summer a casual inspection does not reveal anything much wrong, except that the edges of the leaves seem a trifle browned as if scorched by a fire or burnt by too strong a dose of an insecticide. In the winter, however, a much more serious state of affairs will be found. On those trees which exhibited the scorched foliage just described, the young wood will appear as if withered up completely, buds and all, and when cut will be found to be dead almost, and in some cases quite, down to the older wood. So serious does this become on trees which are badly infected that they practically make no headway at all, if, indeed, they do not decrease in size, because of the pruning back of all the diseased shoots, frequently even into the previous season's wood.

This disease is the result of the attacks of the fungus Botrytis cineria, the summer stage of one of the Sclerotinia, a most widely spread disease, attacking very many kinds of plants, including most garden crops and many kinds of weeds. It attacks first the sappy tip of the young growth of the shoot, the mycelium then passing down, the shoot is killed and the fungus passes on by means of its summer spores, millions of which are to be found even on one shoot. In very bad infections this killing of the young growth can be easily seen, as the tip of the shoot wilts and dies, but more often the effect is such as before described. If these dead tips are seen, they should be at once cut off and put into a galvanised pail and burnt.

As soon as the fruit has been picked, the bushes should be sprayed with Bordeaux mixture at about normal strength, that is, 2lb. of Strawsonite or Vermorite to 10 gallons of water. If it is desired to have freshly made Bordeaux mixture, 1·6lb. of copper sulphate must be dissolved in 10 gallons of water and sufficient lime water added till the solution does not show the red coloration of blue litmus paper due to free acid. By the use of lime water, made by putting a greater quantity of lime in water than is dissolved and so obtaining a saturated solution, the difficulty of the small particles of lime clogging the nozzles of the sprayer, as in the old method, is overcome.

In the winter the diseased wood must be pruned back so far that the cut portion reveals clean, healthy tissue, and all the prunings must be carefully raked up and burnt. Afterwards the bushes must be sprayed heavily with a simple solution of sulphate of copper at the rate of 4lb. to 100 gallons of water. Even these severe measures of pruning and spraying will possibly not entirely eradicate the fungus, owing to the fact that the mycelium is in the tissues of the shoots and branches and so cannot be touched by the spray. It will be a good plan, therefore, as soon as the leaves are open in the spring, to spray with a solution of liver of sulphur (sulphide of potassium) ½oz. to 1oz. per gallon of water, using the smaller strength first and increasing if it is seen that the tender foliage will stand it. This wash should destroy any spores which may have been produced by the hibernating mycelium.

If active measures such as these are taken when the attack is first noticed, the disease should at least be kept well in check, if not stamped out entirely, whereas a few years ago all the bushes would have had to be grubbed up and the plantation done away with. One word of caution must be given; great care must be taken that no other crop grown among Gooseberries is affected with Botrytis, or the latter may be infected. It is a common practice to grow many crops between young Gooseberry trees, and most, if not all, such crops are liable to attacks of this disease. Potatoes, Tomatoes, Beans, Peas, Strawberries, as well as many of the common weeds, may thus prove a serious source of danger to the Gooseberry bushes, and vigilant watch must be kept lest they become infected and communicate the disease to the trees.

All gardeners and those who have charge of Gooseberry plantations, whether small or large, should keep a strict watch for this insidious disease, whose presence is seldom suspected till it has gained a firm hold on the bushes. Wherever this dying back, such as I have described, is found and the trees appear to be doing badly, cuttings should be forwarded either to the office of The Garden or to the Board of Agriculture, so that some mycologist may examine them, for it is only under the microscope ofttimes that the presence or absence of the Botrytis can be assured. Prompt attention to the details described above will be well repaid, as if the disease is allowed to go unchecked serious damage will quickly result.

F. W. Hammond.

Pilgrims Hatch, Brentwood.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

**** The dates given below are those supplied by the respective Secretaries.*

May 4.—Royal Horticultural Society. Exhibition of Flowers, Fruit, &c., 1 p.m. to 6 p.m. Lecture at 3 p.m. by Mr. C. C. Hurst on "Mendel's Law and its Application to Horticulture." Royal Horticultural Hall, Vincent Square, Westminster.

May 5 and 6.—National Auricula and Primula Society's (Midland Section) Show, Botanical Gardens, Edgbaston, Birmingham.

Refreshments at the Temple Show.—In the notices to Fellows published in the current issue of the Royal Horticultural Society's Journal, visitors are warned that refreshments of any sort will not be obtainable at any time except afternoon tea from 2 p.m. to 6 p.m., which will be served out of doors.

Date of National Auricula and Primula Society's (Midland Section) Show.—This exhibition, which was originally fixed for April 28 and 29, has been postponed until May 5 and 6, owing to the lateness of the season. It is to be held in the Botanical Gardens, Edgbaston, Birmingham, and any communications respecting the show should be sent to the hon. show secretary, Mr. T. J. Stevens, 74, Harbury Road, Cannon Hill, Birmingham.

United Horticultural Benefit and Provident Society.—The monthly committee meeting of this society was held at the Horticultural Hall, Vincent Square, S.W., on Monday, April 5th, Mr. Thomas Winter in the chair. Nine new members were elected. The usual quarterly payments were granted, and several members over sixty years of age availed themselves of the opportunity to withdraw their interest, as per Rule 18. The annual report and balance sheet has been posted to members. Will any member not having received one please write to the secretary?

The Journal of the Kew Guild.—The 1908 number of this popular publication has just made a belated appearance, and by the time it reaches some of its members abroad midsummer will probably be well within sight. As usual, its contents are of a varied and interesting character, especially to those who have at any time been connected with the famous gardens. The place of honour is devoted to a brief account of the life and work of Mr. G. Massee, F.L.S., of whom an excellent frontispiece portrait is given. Letters from Old Kewites abroad are, as usual, full of interest, giving one at least a slight insight to the work being done by these men. Death, as usual, has been busy among those who have passed through Kew, particularly sad being that of Mrs. R. Ward, which occurred in British Guiana, and to whose husband the hearts of all Old Kewites will go out in sympathy. A full-page illustration of the Kew staff in 1905 is even more belated than the number of the Journal itself, and though quite worthy of finding a place in the Journal, should have been included in the number for 1906.

Scottish Horticultural Association.—The ordinary monthly meeting of the Scottish Horticultural Association was held in the Hall, St. Andrew Square, Edinburgh, on the evening of Tuesday, April 6th. There was a large attendance of members. The subject of the lecture was "Insectivorous Plants," the lecturer being Mr. Laurence B. Stewart of the Royal Botanic Gardens, Edinburgh, whose practical acquaintance with these plants is extensive, and who is well qualified to speak about them and their ways. The lecture was a deeply interesting one, the illustrations showing many features of importance in the structure of the various insectivorous plants dealt with, while the habitats of the subjects, their general distribution and their discoverers were all treated with considerable detail. Among the plants dealt with were the Sarracenias, Nepenthes, Dionæas, Pinguiculas, Droseras and others. Mr. Stewart's lecture was listened to with much attention, and he was accorded a hearty vote of thanks.

M. Correvon's book on alpines. We understand that arrangements are being made for the publication of an English edition of M. Correvon's splendid book, "Flore Alpine."

Royal Horticultural Society and forced Hyacinths.—The council of the Royal Horticultural Society has accepted the offer of cash prizes to be competed for in March, 1910, from the Royal General Dutch Bulb Growers' Society at Haarlem. Division I. For amateurs and gentlemen's gardeners. Class 3, eighteen Hyacinths, distinct. Class 4, twelve Hyacinths, distinct. Class 5, six Hyacinths, distinct. Class 6, four pans containing Hyacinths, ten roots of one variety in each pan, the blooms of each pan to be of distinctly different colour to those of the other three pans. Division II. For trade growers. Class 7, collection of 200 Hyacinths in at least thirty-six varieties, grown in pots or vases. Class 8, collection of 200 Hyacinths in twenty varieties in pans, ten roots of one variety in each pan. For Classes 3, 4 and 5 each bulb must be in a separate pot, size optional. Classes 3, 4, 5 and 6 must all be single spikes; no spikes may be tied together. Exhibitors may only compete in one of the classes numbered 3, 4 and 5. All bulbs must have been forced entirely in Great Britain or Ireland. The bulbs used in Classes 6 and 8 should be of varieties most suitable for outdoor bedding purposes.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Staking newly planted trees.—I have been tree planting for the last nine or ten years and have tried every method of staking I have heard of; but I did not meet with success until I struck out a line of my own, which has proved so very successful that I think I ought to describe it for the benefit of other readers of THE GARDEN. Before the tree is taken up for transplanting we dig a hole in the usual way, and then choose a stake which is at least as substantial as the tree to be planted, and in the case of small trees, such as those which are only 1 inch in diameter, we use a stake considerably larger, say, 1½ inches in diameter. This stake is driven into the ground in the centre of the hole, and when the tree arrives it is carefully planted against the stake and the soil filled in. Then we put straw round the tree, just level with the top of the post, which should be kept well below the branches. Old wine-bottle straw cases are the most satisfactory for this purpose. The straw is bound round the tree with a strip of old sacking. One man then, with a pair of pincers, holds the end of a piece of ordinary galvanised wire, not less than an eighth of an inch in diameter, tight against the post at the level of the lower part of the straw, and the other man slowly walks round the tree, pulling the other end of the wire all the time until it has been passed round three or four times. The man with the pincers then grips both wires and twists them together, and the long end is cut off. A small staple is then driven into the post over one of the coils of wire to prevent the binding wire from working down, and all is complete. By the time the post rots off at the bottom the tree is strong enough to do without support, and as the straw is from 1½ inches to 3 inches thick all round the tree, the swelling of the stem by growth is accommodated by the compression of the straw. It is an immense advantage to do a job once and for all, and when trees are staked in this manner the only operation necessary after the first is the cutting of the wire and the removal of the posts.—THACKERAY TURNER.

A National Vegetable Society.—The proposal to promote a National Vegetable Society, which appeared on page 189, is not new, as I and others have advocated both that and the holding of national exhibitions of vegetables in the past; but no response has been made of a nature to justify further action. It is, indeed, strange that, while special and strong societies can be promoted to encourage Auriculas, Carnations, Dahlias, Roses, Sweet Peas, Daffodils, Chrysanthemums and other flowers, no special body thinks it to be its duty to take either fruit or vegetables under its particular protection. Things giving colour-beauty and some perfume arouse great enthusiasm; things which, as fruit or vegetables, give us the most delicious and wholesome food and have the highest value to the nation in an economic as well as mercantile sense create no such interest. Such a result is, to say the least, astounding and not at all in accordance with that practical good sense and judgment which is so commonly ascribed to the British people. We have seen the usual exhibition of hardy British-grown fruit expunged from the programme of the Royal Horticultural Society this year, and the greatest vegetable exhibition in the kingdom—that of Shrewsbury—whittled down so severely that it threatens this year to be but a shadow of its former self. How much must all those who have that form of patriotism which means the nation's and the people's welfare deplore these snubs to one of our greatest and most valued industries. So far as vegetables are concerned, it has been too largely their misfortune at exhibitions that societies have left them to the mercy of the seed trade. But for that trade competitions would have been few indeed. That offers of prizes, sometimes very liberal ones, by the trade were good advertisements there can be no doubt; but it is too much to expect that such prizes could be offered and so largely from year to year without some *quid pro quo* being looked for. It is only fair to these prizes that it should be said of them they have not infrequently produced some of the finest vegetable competitions ever seen. Were any really tangible effort made to promote the formation of a National Vegetable Society, most certainly a liberal backing by the seed trade would be necessary. It is not essential to such a society that the seed trade be of the executive. That, like the old International Potato Society, and which carried out in its time such splendid Potato shows in and near London, should be composed chiefly of amateurs and gardeners, or of those having little or no pecuniary interest in the trade. Such an executive it would not be difficult to form provided the backing of numerous subscribing members to such a society were forthcoming. That our market methods of vegetable culture and of marketing needs great improvement there can be no doubt. The public sees only at exhibitions the fine produce of high-class gardens, but can purchase none so admirable in the markets or shops. A national society might do much in the direction of bettering these things. In holding an exhibition its aims should be rather to encourage the highest quality and not size. An ideal table sample needs creating, and this should form the basis of class requirements as well as of judging. There are many other directions in which a vegetable society could operate with great usefulness.—A. D.

Price of home-grown Apples.—Having just read "A. D.'s" note on "Well-kept Apples" in THE GARDEN of February 27 (page 99), it seems to me that the British public is beginning to realise the value of home-grown fruit. During the past fifty years the facilities for obtaining almost every kind from other countries have increased so vastly that Apples can now be had all the year. Certainly it does not pay anyone to pack and pay carriage for

second-class fruit, and no one has realised this more than the foreigner. One is glad to note that some of our home growers are realising this also. In consequence, the importations have been of Apples that have colour and appearance, and with this good, even samples. This being the case, it is not to be wondered at that these caught the public taste, when compared with the mixed, uneven and often poor samples grown and sent to market by so many home growers; and even at the present time we have far too many of this class. Every grower of Apples knows that some of our best sorts for flavour have not the best appearance, particularly when they are badly grown. Still, we have always had sorts of good appearance, and in proof of this I would mention Golden Noble, Bess Pool and Blenheim Orange. These are not new varieties, and I doubt when well grown if any three sorts that can be named and are imported can surpass them. In proof of this, during the past six months I have been observing the prices of these and other English Apples in some of our best fruiterers' shops, comparing them with those imported. One of the best fruiterers in this place has been showing many really good home-grown sorts for months past. At the close of January I saw that good old variety Bess Pool in the window, and, wishing to try it, bought one. This was a fair size and good colour and cost 1d. These were marked at 5d. per pound, and sold readily at that price. The flavour was excellent and the fruit sound and fresh. The fruiterer above referred to told me he had not bought any foreign Apples this season, his customers preferring home grown, and he added that he disposed of a good many in a week. I have seen Bramley's Seedling, Annie Elizabeth and many fine cooking sorts, with grand Cox's Orange Pippin. This last and other good dessert Apples he was offering at 4d. to 6d. per pound. Another fruiterer recently said he was obliged to keep home-grown Apples, because some of his customers would not have imported ones. All this goes to show there is money in Apple-growing when thoroughly understood and the land is suitable.—John Crook, *Camberley.*

Burning sulphur in fruit houses. There are instances where the owners of fruit houses are driven almost to acts of desperation from the incessant infestations of insect pests during the growing seasons. Fumes from burnt sulphur have long since been recognised as a deadly antidote, of which no living insect is believed to have the power of defiance. But it is only the most inexperienced pupil who will run the risk of adopting burnt sulphur as a remedy, because vegetable life succumbs as quickly as does that of insect when subject to sulphurous fumes generated from actual fire. The new patent sulphur vaporiser is, however, an appliance which may safely be used for disseminating sulphur fumes in vapour, and they are used by many gardeners very successfully for red spider and mildew attacks in the growing seasons. Flowers of sulphur enters often largely into the formulæ employed for winter dressings for fruit trees, and especially when red spider is the insect to be combated, for it succumbs quickly to its influence. Since the introduction of nicotine emulsions red spider has lost some of its old terrors, for these are even more potent in their action than sulphur, which is admitting much. Prescriptions for the dressing of fruit trees when red spider is the principal adversary should now include nicotine as one of the principal items, for it has been proved most conclusively that this otherwise insidious enemy of the garden cannot thrive in an atmosphere of nicotine. Valuable as is this poisonous extract for winter dressings in fruit houses, I would warn the inexperienced against its use on trees having fruit in any stage of advance, because there remains a taint so insistent that time does not appear to have the merit of removing it. On nude trees no harm follows its use, nor on trees or plants for ornament only; but no fruit can resist its subtle taint if used on such trees in any of their fruiting stages. To the very reliable prescription given on page 60, viz., equal quantities of sulphur, lime and clay prepared as a paint, add a small quantity of nicotine emulsion, say, one wineglassful to each half gallon, and stir thoroughly to ensure its being well mixed.—W. Strugnell.

A fine Rhododendron (Azalea) indicum.—Having a rather fine Rhododendron (Azalea) indicum in bloom in the conservatory here, my employer, the Rev. E. F. Smith, had it photographed, and I enclose a photograph for reproduction in The Garden, of which I am a regular reader. [See page 202.] It is a fine plant, measuring 5 feet across and over 5 feet in height, and when photographed it had over 700 blooms. It has been watered only with rainwater and a little Clay's Fertilizer. I find Oxford water does not suit these shrubs.—William Hebborn, *The Garden, 153, Banbury Road, Oxford.*

Dendrobium wardianum.—I am sending you a photograph of Dendrobium wardianum for The Garden. It is now (March 17) in bloom and carrying 108 flowers on growths ranging from 2½ feet to 4 feet in length. It has been admired by all who have seen it.—William Preece (Gardener to Mrs. Waddingham), *Guiting Grange, Cheltenham.*

A WELL-FLOWERED DENDROBIUM WARDIANUM.

Rose Mme. Alfred Carriere.—I can quite endorse "Sub-Rosa's" remarks on Rose Mme. Alfred Carrière in your issue of February 27. For hardiness as well as beauty this climber can hardly be surpassed, and as evidence of the former I may say that not only have I picked blooms continuously well into the winter, but on the Christmas Days of 1906 and 1908 the same bushes have supplied enough excellent blooms to partly decorate the dinner-table. The pergola is very exposed to the south-west wind (the prevailing wind in these parts), which creates at times serious havoc with the tender shoots. The soil is gravel, with a top spit of from 6 inches to 12 inches of light mould. It is an undertaking of some labour to dig and make suitable beds in this neighbourhood, the gravel being so hard that the pickaxe has to be freely used. It is not an ideal spot for Rose-growing; nevertheless, Mme. Alfred Carrière flourishes. E. W. C., *Lymington.*

HIPPEASTRUMS AT MESSRS. JAMES VEITCH AND SONS' NURSERIES.

At the present time when outdoor gardening is so much in vogue there is a certain amount of indifference displayed by many where greenhouse plants are concerned, and, consequently, their many merits stand in danger of being overlooked. Among the brightest and most easily grown of our spring-flowering greenhouse plants the many beautiful hybrid Hippeastrums (or Amaryllises as they are frequently but erroneously called) must occupy a front rank. We use the term "easily grown" advisedly, because these bulbous plants are considerably less trouble to bring to a successful issue than many other occupants of the greenhouse, the one point that proves a stumbling block to many, but which may be easily avoided, being the treatment of the plants after they have flowered, which is the period when they need feeding well and plenty of light, so that embryo flower-buds may be formed ready for development the next spring. This point fully grasped, and a warm greenhouse temperature being available, the culture of these plants is simplicity itself.

Recently we took a trip to Chelsea and called at Messrs. J. Veitch and Sons' nursery, which is situated in King's Road. This firm has for many years made a speciality of these plants, and recently a large new span-roofed house has been prepared for their accommodation. In this house are a large centre stage and two side stages, so that the plants obtain the maximum amount of light. These stages have high-raised edges, so that beds of one year old tan can be made thereon, the pots containing the plants being plunged to their rims in this. About 3,000 plants were seen, many of them being only two and a-half years old and in 5-inch pots, yet they were flowering freely and in perfect health. The fact that such magnificent specimens can be obtained in so small pots should commend them to all who have much decorative work to carry out.

Of course, those plants which are only two and a-half years old are now flowering for the first time, and the splendid forms, pure colours and robust constitutions that generally prevailed reflected the greatest credit on those responsible for the crossing of the parents, which was evidently done with an eye to all-round improvement.

Although we cannot attempt to give here anything like an exhaustive list of the best varieties seen, mention of a few may be of interest and value. Foremost comes Marsus, a splendid scarlet crimson self with broad, firm, slightly reflexed petals and perfect form. Romola is a very large scarlet which has extra broad petals. Myca is a fine dark crimson, this colour gradually becoming lighter until it is scarlet at the tips of the segments. A good companion to this is Euphrasia, a sturdy plant with massive dark red flowers. Adeira is almost, but not quite, pure white, a slight tinge of pink showing through, but it is a lovely flower. Letitia has an unusual blossom, the upper petals being bright scarlet, the lower ones freely flaked with white. Enid, again, is very attractive, the creamy white ground colour being marked with red streaks at the bases of the upper segments.

In addition to these beautiful Hippeastrums, many other good and interesting greenhouse plants may be seen at these Chelsea nurseries; indeed, it would be difficult to name a plant that the firm cannot supply. A survey of the numerous houses wherein were such subjects as Orchids, Water Lilies, greenhouse and stove climbers and foliage plants, insectivorous plants, Bamboos, Plumbagos, Passion Flowers and hosts of other good things, including some fine specimens of Medinilla magnifica, proved to us that the stock is both extensive and healthy.

THE FLOWER GARDEN.

DAFFODIL NOTES.

REGISTRATION OF NAMES.

THE Narcissus committee of the Royal Horticultural Society has recently been considering the important question of name registration. Up to the present anyone could register as many names as one pleased, whether they really belonged to a plant or whether they were sent in order that they might be used on some future occasion. This is unsatisfactory. The further consideration of the question is postponed until May 4, when it is hoped a satisfactory solution may be found.

The problem may be thus stated: (1) Every flower should have a name of its own, which should be registered, provided that (2) it has a reasonable chance of becoming a permanent variety and that (3) it is above the rubbish-heap standard. The committee of the Midland Society has suggested three flowers, with the sender's description, as the number necessary for registration. If in addition a small fee of, say, a shilling were charged, and if, too, the committee reserved to itself the power to refuse worthless varieties, it seems to me that the difficulty might be met. Three flowers would mean that the plant was not likely to die out; the description would be a record of the type of flower; and the fee and the power of refusal would prevent an abuse of registration and, at the same time, afford the public a guarantee that that particular plant is worth a name. This, of course, is quite a different thing from giving an award of merit, and the two must not be confused.

THE EXCEPTIONAL SEASON.

It was a sign of this exceptional year that there was not a single flower before the committee on the 6th inst. I fear the hot, drying days and the cold nights of Easter week, although very acceptable for the holiday folk, will have a somewhat disastrous effect on the flowers. My own are coming small in size and of poor substance. They are also short in the stem. Unless we get some warm, genial rain soon the season will be a short one.

AT VINCENT SQUARE ON APRIL 6

there were some very nice groups shown. Messrs. Cartwright and Goodwin had another beautiful exhibit of flowers opened under glass, for which they received a silver Flora medal. There were three or four varieties that were particularly fine, *e.g.*, Weardale Perfection, Fusilier, Beacon and Castile. The last named seems peculiarly suited for growing in pots for very late forcing. The unique colouring is softened and the amber of the perianth seems just the shade to go with the apricot orange cup. There was a good vase of Outpost, which may be described as a handsome, early, large trumpet with Glory of Leiden colouring. It opens with me at the same time as Duke of Bedford, and on this account is valuable. Armorel is another early variety; it has a rather pointed white perianth and a flat cup with a distinct orange red edge. Mariette is a pretty little flower with a deep yellow, flat cup, edged red.

The most interesting exhibit was that of Mr. Charles Dawson of Penzance, because it was very largely composed of new seedlings. Most were under numbers; 289 is a delightful seedling from cyclamineus and King Alfred, and is of the richest yellow colouring, possessing a long, graceful trumpet and a reflexed perianth; 91 and 419 are two yellow incomparabilis, the former with a straight Bernardii cup, while in the latter it was more expanded and the whole flower a deeper yellow; 324 and 77 were two giant Leedsii. Tita, shown in the centre of the stand, is a splendid incomparabilis which suggests an intensified Barri conspicuus, with a cup rather more flattened than in that grand old variety. Diogenes, a pale bicolor large trumpet, and Macebearer, a robust-looking large cup after the type of Leonie, must also be noticed.

Messrs. Barr and Sons had a good many of the Daffodils that figure on the coloured pages of their catalogue as "New Seedlings." Lady Audrey, Pyramus and Pharaoh are three good pale-coloured trumpets. Royal Star is a large, showy, flat-crowned sort that showed very prominently among the others. Sirdar is one of the very best of all the new giant Leedsii, of which White Queen has been the forerunner. It is still priced at ten guineas a bulb—unfortunately for limited purses. Fairy Queen was on this stand as well as on others. The more I see of this flower the more am I struck with its beauty. It is a small and more refined Mrs. Langtry, and on account of its being easy to force, is very valuable for potwork.

Miss Currey sent some early Daffodils from Ireland. The characteristic feature of her group was the selection of small-growing varieties that are suitable for rockwork. Now that a rockery is becoming an almost necessary adjunct of a garden, this was a happy thought of hers, and it will be of interest if I give the names of some of them. The collection included Macleayi, Oporto Yellow, Golden Dwarf, Cabeceiras, Countess of Desmond (pale Captain Nelson yellow) and Tridymus S. A. de Graaff. If Nanus, Lobularis and W. P. Milner were added, the whole would form an excellent and varied selection.

Mr. Frank Lilley had a bright-looking lot of flowers. Dandy Dick is a showy incomparabilis with a bold, crimped cup, margined with orange red. Defiance is a large trumpet with a pale yellow perianth. There were also a good many Polyanthus varieties, such as Maestro, President Harrison and Bayelman Major. This last is very near a Poetaz and is very good for pots.

Messrs. R. H. Bath, Limited, of Wisbech had some well-grown Tulips, among which a bowl or two of Rose Gris-de-lin took my eye. It is an admirable sort to grow in pots or fibre, being dwarf in habit, good in constitution and pleasing in the shape of its flowers. There was only one Daffodil—at least, only one that I had eyes for—and that was a magnificent new incomparabilis that "the storks" had brought here in the early morning. Later in the day I was present at the christening, and very appropriately it was named Refulgence. Picture a fine large flower with wide, incurving perianth segments, a little like in their pose to the decorative Frank Miles; picture in the middle of these a wide and redder Gloria Mundi cup and the whole gracefully hung on a strong stem, and you have an idea of this fine new variety. In concluding these notes, I must just allude to Messrs. Carter's glorious bank of King Alfred and a delightful pan of Narcissus cyclamineus that graced Mr. Reuthe's collection of spring flowers. JOSEPH JACOB.

SEED-SOWING IN THE FLOWER GARDEN.

WHAT a wealth of flowers may be raised from seed sown in the open ground! In making a selection there is not much difficulty as to the kinds to choose, but rather the puzzle is which to omit. Hardy annuals comprise the largest section which is sown in the spring, and in every garden, large and small, many of these deservedly popular flowers are largely relied upon both for presenting pleasing features in beds and borders and also for the supply of cut flowers. A rich, deeply dug, fairly light soil is the best for annuals generally, although some of the stronger growers, such as Nasturtiums and Convolvuluses, will succeed well in a somewhat heavy soil, providing it is not too wet and has been well prepared by deep digging. Before sowing the soil should be well pulverised and levelled with the rake. Fine weather is essential, and the work should be done when the soil is in a workable condition. When sowing very small seeds of choice annuals too much importance cannot be paid to the thorough preparation of the soil. In some cases it is advisable to prepare some finely sifted soil for covering the seeds when these are very small and the soil of the garden rather heavy, lumpy, or otherwise not all that can be desired. A little extra care in this way often results in success where previously only indifferent results were obtained. Seeds should not be covered too deeply; a general rule is to cover them with the depth of their diameter.

When sowing beds of hardy annuals, or even in borders between other plants, I prefer drills to sowing broadcast; seed is economised and can be better covered a regular depth, the seedlings can be easily thinned and weeds removed from among them. Should the weather be dry when the young plants appear, they should be watered overhead through a fine-rosed watering-pot. Thinning out will be the next important operation, and this should be done during showery weather if possible. No harm accrues to the remaining plants when the soil is moist, and if desired many of the seedlings may be safely transferred to other quarters under these suitable conditions. The soil around the plants should be constantly stirred, taking care not to injure the foliage or roots. Many annuals are of very branching growth, and a second thinning may be necessary as the young plants develop. Annuals are seldom over-thinned, but frequently suffer through insufficient space to develop, and, consequently, cannot fully display their beauty.

Some of the taller-growing annuals need light supports; this is best afforded by placing some Birch or Hazel twigs about them. This may be neatly done without making the sticks too prominent, and the work should be done before the plants fall over for want of support, otherwise it is difficult to keep the beds neat. Climbing annuals, such as Convolvuluses, Tropæolums and Thunbergias will need taller and stronger supports; they may also be used for covering fences, trellises, &c., as desired. A succession of annuals may be kept up by sowing from the middle of March to the end of May. There are many beautiful annuals suitable for all gardens—dwarf, medium, tall and climbing—and by selecting varieties best suited for the purposes for which they are required an interesting and pleasing effect may be produced. C. RUSE.

SWEET PEA CHAT.

THINNING OUT.—Has the gardener, amateur or professional, yet been born who can, after having sown the seeds a great deal too thickly, find it in his heart to thin out sufficiently? I doubt it. Still, those who would achieve the finest results positively must allow the plants an ample amount of space, for it is only then that they will do themselves full justice. Many inexperienced growers assert that, if they lose somewhat in size and substance of the blooms by overcrowding, they gain in the actual number of stems, but this is by no means the case. At one given time the crowded plants may carry rather more flowers; but take the succession from the start to the finish, and it will be found that the thin plants are easy winners in quality, colour and numbers. Look at the matter from all points and study it as much as may be, and the incontrovertible fact remains that thinness is all in favour of the cultivator. Therefore, in the thinning out carry it to a proper distance. There may be some soils and situations in which a plant will thrive perfectly at a distance of 8 inches from the neighbours on each side of it; but, generally speaking, 12 inches is the ideal distance for plants grown especially for the adornment of the garden and for producing an abundance of flowers for cutting. Should a row be at all gappy, one can utilise the thinnings to fill it up, provided that the lifting is done carefully and the replanting is carried out forthwith, while, if desired, the seedlings removed can

NEW SAXIFRAGA APICULATA ALBA. (*Natural size*)

be used to form other complete rows or clumps. One does not like to see healthy plants wasted, but rather allow this than packing, which will prejudice the prospects of success to a most serious extent.

PLANTING OUT.—In many districts the season is so late that it has not been possible to complete the planting out even now, but there is no question that it ought to be finished as soon as can be managed. Do not, of course, attempt to do it when the soil is sodden with water, but, apart from that state, let nothing stand in the way of the operation. Much unnecessary worry is felt by some growers over the point as to whether the clumps of plants grown in pots should be planted intact or if they should be separated. It is wholly a matter of opinion; but provided that the work is properly done, I think that one should always give the preference to separation. It is imperative that care shall be taken not to damage the roots, and if this is given and the planting is carried out quickly, there will not be the slightest check to the progress of the plant that can be directly ascribed to the fact that the plants were pulled apart at the time of planting.

WATERING.—This should never be commenced until the day of compulsion. As long as the soil continues pleasantly moist it is neither necessary nor desirable to have recourse to artificial watering, and when one has to rely exclusively upon cold water from mains it becomes still more important to put off the evil day. That watering does good everyone is bound to admit, but persistent cold applications to the soil will drive the roots downwards, destroy many of the feeders and give an effectual check to the progress of the plant. Always obviate the necessity for watering by surface-hoeing with the Dutch hoe or, and rather better in the majority of instances, by mulching the surface with short, sweet manure; but when the time does come for water to be given, let the drink be no stinted one. On the contrary, give sufficient to soak down 3 feet into the ground, and to ensure this at least three gallons to the square yard will be required. This quantity will not, however, be enough on light, sandy soils overlying gravel, for which five gallons to the square yard is by no means too much. When this has been done, drive all thoughts of watering from the mind, and do not let them come back again until the soil is approaching dryness. Thorough soakings such as this, given with judgment, do immense good, while driblets night after night do a considerable amount of harm and must be avoided. SPENCER.

SAXIFRAGA APICULATA ALBA.

THIS is a pure white form of the well-known and beautiful pale yellow-flowered S. apiculata, and will undoubtedly prove a useful acquisition to the early-flowering Saxifrages. It was fully described on page 195 of our issue for last week. When shown before the Royal Horticultural Society on the 6th inst. by The Guildford Hardy Plant Nurseries it received an award of merit.

CROCUS SIEBERI VERSICOLOR.

THIS is a very beautiful spring-flowering Crocus and was described on page 171 of THE GARDEN for the 3rd inst. The general colour is dark violet or plum, the leaves being prettily striated. It was shown by Mr. G. Reuthe, Keston, Kent, on March 23, when it received an award of merit, an honour that a Crocus seldom obtains. We cannot have too many good things among our spring flowers, as they come at a season when brightness and beauty is much appreciated.

COLOURED PLATE.

PLATE 1372.

CARNATION LADY DAINTY.

AN OLD TYPE REVIVED.

THE Carnation figured in the plate was raised in Messrs. H. Low and Sons' nurseries from a purple seedling, with Enchantress blood in it, and Lady Bountiful. It first flowered in 1905, and is to be sent out this year. It resembles Mr. Burnett's Marmion and the American Prosperity (*see* Coloured Plate No. III. in "The American Carnation," by C. W. Ward) in the way the colour is laid on the petals. I advisedly say laid on, for it is characteristic of this type that the underneath of the petals is white, while the colour just looks as if it had been painted by hand on the upper side so as to fill in the centres and leave a white margin round the edges. Mr. Ward describes Prosperity as a fancy flake, and from a conversation I had with Mr. Allwood, who has passed many years in America, I am led to believe that "flake" or "fancy flake" is the usual American term for this particular type. English florists, however, mean something quite different when they use the term. One of the most famous show flowers of the last half-century is the scarlet flake Sportsman, which appeared as a sport in 1855 and can still hold its own on exhibition stands. Here the ground of the petals is white, while the red appears as distinct splashes or flakes, which is very unlike the colour scheme of Lady Dainty, Marmion, Prosperity or the new American Luceille. The type to which these four flowers belong is no new one. As long ago as 1733 flowers with the same coloration were known and classified by Philip Miller in that grand old storehouse of our forefathers' gardening ways, "The Gardeners' Dictionary." Writing under the head "Cargophyllus," he says: "And first, I shall begin with the Carnation or Clove-gilliflower; these the Florists distinguish again into four classes. . . . The fourth are call'd *Painted Ladies;* these have their petals of a red or purple colour on the upper side, and are white underneath." Two other references for the use of this term in old floricultural literature are (1) "The Compleat Florist," published by Duke and Robinson in 1747, Plate 26, Painted Lady Carnation; (2) Thornton's "Temple of Flora," published in 1806. In the letterpress describing Carnations we find: "Florists distinguish Carnations into four divisions . . . second, Painted Ladies, having the petals of a red or purple on the upper part only, and the under side of clear white." Both in Miller and Thornton the other three divisions are Flakes, Bizarres and Piquettes.

Reviving, then, an old and seemingly forgotten name, I would describe Lady Dainty as a refined flower of the Painted Lady type, with pale colouring of a claret purple tone; exceedingly sweet, with a nice full centre and regular guard-petals; of good size; and with long, stiff stems. The plant has a compact habit, and is said to be very free.

Lady Dainty is not the only novelty that Messrs. Low intend to send out in 1909. She will have to keep her company: (1) Black Chief, a large, deep velvety crimson of excellent shape. It is sweetly scented and has a robust constitution. It is the result of a cross between The President and Harlowarden. The plant itself reminds one of Mrs. H. Burnett, but is a rather stronger grower. It will thus be seen that it is totally different to the old Harlowarden. It also produces about twice as many flowers as that variety. (2) Royal Purple. Its colour is what its name denotes. The flowers are full in the centre, like Enchantress, which was one of its parents, the other being a purple seedling. (3) Rival, a flower of a delightful shade of cerise-salmon, reminding one very much of the beautiful Rose Doré. This, of course, is quite a new colour shade in these Carnations. It has a high centre and broad guard-petals, these giving the flower a very attractive and unique appearance. The plant is of free growth and good habit, and is the result of a cross between

NEW CROCUS SIEBERI VERSICOLOR. (*Natural size.*)

two seedlings of great merit. Unfortunately, it has no scent.

How much one could say about scent in flowers! How much a flower loses which might have scent but has not! In the case of the Carnation, over and above the delicious charm of the Old Clove smell, there is the thought that it was in all probability because of its perfume and its aromatic properties that it has been for so very many years an honoured occupant of our English gardens. J. JACOB.

THE GREENHOUSE.

HOW TO USE THE COLD FRAME

[*In reply to "Suburb"*]

HOW best to use a cold frame entirely from the amateur's point of view, and where no greenhouse or other convenience exists, will to some extent depend upon the particular phase of gardening the individual amateur would prefer to indulge in, and whether vegetables or flowers would be most preferred.

A FINE RHODODENDRON (AZALEA) INDICUM IN THE REV. E. F. SMITH'S OXFORD GARDEN. (*See page 199.*)

If a two-light or a three-light frame existed, it would be possible to engage in both to some extent, while if the "glass department" was limited to a single-light frame, the operations also would be of a limited character. Even here, however, such a frame might prove a profitable sort of pastime, while affording not a little pleasure to boot. But I will discuss the merits of the principle, leaving the details for individuals to settle in the way best suited to their own requirements. Although I have in mind the cold frame pure and simple, there is ever present the possibility of that very useful adjunct the hot-bed, which requires no attention beyond the making, and which, furnishing a genial warmth to the roots of plants, promotes the quickest growth and the best possible development in the shortest time. Moreover, there is the additional fact that this manure or hot-bed, while furnishing warmth to certain crops, is also being prepared for garden use at a later date, and, therefore, is valuable on that account.

Such a frame as this, say, of three lights, may be divided between flowers and vegetables. For example, early Potatoes of the Ashleaf type or Sutton's May Queen could be grown therein, and a crop of Early French Breakfast Radish may be taken from the surface before the Potato tops would be in the way. In another section Cauliflower plants might be raised, also Lettuce. In the same section Vegetable Marrow plants for sale could be raised, also Celery, planting some of the Vegetable Marrows for fruiting when the Cauliflower plants had been disposed of, and transplanting the Celery plants to the section where the Potatoes were first planted, and so on. In the third section flower seeds may be grown, as Asters, Pansies, Zinnias, Lobelia, Marguerite and other Carnations and many more. Tuberous Begonias could be started for bedding out, and cuttings of Chrysanthemums could be rooted whether required for pot or border cultivation. A summer crop might be composed of Cucumbers alone, and these might be carried on till the arrival of frosts. Thus you see the advantages of the manure-bed-heated frame are great.

If, on the other hand, your frame is quite cold, you might winter in it such plants as Echeverias, Calceolarias, rooted cuttings of Pentstemons and other subjects, any or all of which in March might be transferred to a sheltered border, and if given the protection of scrim or canvas would permit of the soil of the frame being used for sowing seeds of Cabbage, Brussels Sprouts, Celery and other plants for early cropping. Radishes, Lettuce and other crops might be grown in part of the frame, the latter yielding up these for a crop of Cucumbers or Vegetable Marrows for the summer, and so on. Just what might prove best depends entirely upon the place in which you live and the possibilities of disposing of the various produce.

If, on the other hand, you had a desire to make the most of a frame, whether cold or heated by manure-beds, you would have to do it by quick successional crops, such as would find a ready sale in your own immediate district. And just as a cold frame is an excellent adjunct to the greenhouse, so is the sheltered border with a 9-inch deal board front and canvas-covered top for protection a perfectly legitimate and valuable adjunct to the cold frame to admit of crop succeeding crop in quick rotation. E. H. JENKINS.

THE FRUIT GARDEN.

HOW TO GROW FRUIT TREES IN POTS.

(*Continued from page 188.*)

POTS AND SIZES OF POTS.

BY all means use strong, well-made pots; this is most essential, as there are several movings during the season with some risks of breakages. Soft, absorbent pots are not desirable for obvious reasons. The greater number of our trees are in 10-inch, 11-inch and 12-inch pots. The largest are in 13-inch and 14-inch pots, but none larger than the last named and not many of them. We are very chary of increasing the sizes. This is decided upon at the time of potting. If a tree appears really to require it, a larger pot is provided, and if, on the other hand, a smaller pot is thought desirable, it is used instead. Of course, the pots are well washed—I would not think of using them otherwise—and they are dry at the time of potting. New pots are always well soaked before being used. The crocks used as drainage are also clean. We crock carefully and somewhat freely also.

WATERING.

At the time of potting, if a tree be at all dry at the roots, it is soaked previous to repotting, *i.e.*, after it has been taken out of its pot and the ball reduced sufficiently. Afterwards enough water is given to thoroughly penetrate the soil. Thence onwards but little is needed until the growth is again active. Care must, however, be exercised to avoid both extremes, either of which is harmful. It is only when the leaf-growth becomes active and the root-action corresponding thereto that watering may be done freely. It will increase steadily at first, but with warmer weather and brighter sunshine more rapidly. Even then it is safer to err occasionally on the dry side, so long as it is not carried too far, than it is to go to the other and opposite extreme. A sharper watch has necessarily to be kept during bright, windy weather; but anyone with his wits about him should know this and guard against it. When the fruits are advancing towards the ripening stage, with the wood-growth consequently not so active, less water is needed, and this will assist in developing a finer flavour in the fruits.

TOP-DRESSING.

This is a most important item in the culture of fruit trees in pots. We generally apply it when root-action becomes quite active and when the fruits are swelling freely, and before the stone becomes at all hardened. When Peaches, Nectarines and Plums are as large as Cob Nuts, it may be attended to; in the case of Cherries, almost as soon as the fruits are seen to be swelling at all; and in that of Figs when the fruits are about half grown. This top-dressing is prepared with turfy fibrous loam, some short manure and Wakeley's Hop Manure. This latter ingredient encourages and stimulates a rapid root-action in every case. The mixture is applied to the surface of the soil next to the rims of the pots, making a ring of it which is pressed down firmly, being at the finish about 3 inches in depth. It is surprising how soon the roots penetrate this addition. We do not remove this top-dressing until the time of potting comes round again. JAMES HUDSON, V.M.H.

(*To be continued.*)

TREES AND SHRUBS.

EARLY-FLOWERING RHODODENDRONS.

IN Devonshire, Cornwall and other places favoured with a similar climate, March and April are probably the two most important months in the Rhododendron season for flowers, while February, when the weather is mild, is often noted for a fairly good supply of bloom. About London and further North the season is considerably later and the profusion of bloom cannot be expected before May. While, however, the majority of sorts do not blossom until May and June, there are several which open their flowers at an earlier date, and these are the ones to which attention is directed. The first to flower is, of course, the oft-noted species, R. dauricum, which comes from Dahuria and Mandshuria. The rosy purple flowers of this open in January and February. Although it is not sufficiently useful to be recommended for general cultivation, it has proved of service to the hybridist, and several very ornamental varieties claim its parentage. The pretty rosy lilac-flowered R. præcox, which is a great favourite when blooming freely in March, is a hybrid between this and R. ciliatum, while Rosy Bell, another dwarf-growing, early, free-flowering hybrid, claims a certain amount of dauricum blood. A very pretty free-flowering variety has been sent out under the name of amœnum. This blooms in March and April, the flowers being similar in colour to those of præcox. It is unfortunate that this name has been given it, as there is danger of the plant being confused with the old Azalea amœna (really R. indicum amœnum). R. parvifolium is another early-flowering species; it cannot, however, be said to be very ornamental, but is worthy a sheltered nook in the rock garden.

Among large-growing sorts the principal is R. nobleanum. This is well known in many places as a large, handsome bush 12 feet or more high. Flowers sometimes open in November and frequently in January and February, the colour being a bright rosy red. For early forcing it is the most useful of all the early kinds. Several forms differing in colour are known. An early-flowering species which has been stated to be an autumn-flowering Rhododendron is R. Harrisii. This was raised by Mr. J. Harris of Swansea, and the red flowers open at intervals between October and March. The variety George Cunningham, sometimes called Baron Ory, produces white, dark-blotched flowers during late March, while Smithii album is a very nice early-flowering white. Early April sees russellianum superbum, a very rich red, at its best. Some of the large-growing Himalayan species thrive well about London, and R. fulgens makes a nice display of blood red flowers from February to April, according to weather. R. campanulatum, also, is prominent, the white, lilac or mauve flowers being freely produced. A particularly rich-coloured Rhododendron is found in R. Thomsoni, its long, crimson blooms being prominent during March and April. W. D.

THE ROSE GARDEN.

A BEAUTIFUL RAMBLER ROSE FOR POT CULTURE.

MR. WALSH of Wood's Hole has been wonderfully fortunate in his seedlings of rambler Roses. One of the prettiest is called Wedding Bells. It is a blending of Crimson Rambler and Carmine Pillar and has a delightful colour, just that taking tint of carnation pink seen in Begonia Gloire de Lorraine. The individual blooms have two or three rows of petals, and each flower has a clear white eye. When we obtain trusses or trails that contain some fifty blooms it may readily be imagined what a lovely effect is produced from a well-flowered, pot-grown specimen. It is of very dense and leafy habit. The foliage resembles in colour Carmine Pillar, but it is as small as that of R. Moschata. It has the estimable quality of good lasting powers, the blooms remaining bright and fresh for a considerable time. To some extent this variety is eclipsed for pot culture by that grand novelty Tausendschon; but its neat little flowers will find many admirers.

These large-clustered Roses are just the type to grow for pot work, for, speaking generally, it is a mass of bloom we require. There are some of the wichuraiana Roses that do not make effective pot plants, but those of the Dorothy Perkins group are undoubtedly splendid for the work, which is testified by the enormous number grown. Varieties of the R. multiflora group, to which Wedding Bells belongs, are, perhaps, as useful as any, for there is more compactness about their growth, which fits them admirably for growing in pillar form. Blush Rambler is still one of the most popular. Philadelphia Rambler is splendid when well grown. It even surpasses Crimson Rambler under glass, and has none of that bad quality of green-centred buds which it develops outdoors. P.

ROSE WILLIAM ALLEN RICHARDSON ON THE VERANDAH OF LISLE COURT COTTAGE, LYMINGTON, HANTS.

ROSE WM. ALLEN RICHARDSON.

THIS beautiful Noisette Rose is so well known that it is needless to describe it here; as a wall climber it is superb, the bright coppery-coloured flowers being most useful for buttonholes. The illustration is from a photograph kindly sent to us by Mr. Henry Wood, Lisle Court Cottage, Lymington, Hants, and represents a good specimen of this Rose trained on the verandah of his house. The photograph was taken last summer.

ROSE CLIMBING MRS. W. J. GRANT.

THERE is an increasing demand for this Rose, and one is not surprised at this, for it produces one of the loveliest of blooms, having all the characteristics of the dwarf form without any of its defects of indifferent growth. Climbing Mrs. W. J. Grant is extra fine when grown as a standard, especially if three buds are inserted, as then one obtains a fine wide head some 18 inches through. On such a head of growth I counted last summer as many as forty buds and expanded blooms at one time. This Rose is one of the earliest of what one may call the better class Roses to open, and no one should fail to have several pillars of it planted against a trellis of rough stakes. They commence to show colour towards the end of June, and most useful they are, the beautiful, elongated buds causing them to be much sought after for buttonholes. I think we shall find Climbing Liberty just as useful and about the same habit of growth. I must say Climbing Mrs. W. J. Grant is somewhat erratic. I have planted strong-looking plants, but they have obstinately refused to move. This is somewhat vexing, but the only plan is to cut them back hard so as to compel the lower eyes to burst. Of a rather more scandent nature, Climbing Captain Christy is a delightful light pink, and should be in every garden. If a wall is not available, plant it against an old tree. It will grow well there. Another desirable sort is Lady Waterlow, perhaps one of the prettiest of recently introduced Roses. It is very beautiful with its yellow base to every pinkish bud, and the growth is fine. All of these make grand free-headed standards and also free bushes. In both cases their beauty is well displayed. The budding of climbing Roses on standards is now being largely carried out by many of our leading Rose nurserymen, so that trees of this character will in the near future be easily procurable, and the planting of them in gardens will doubtless be greatly extended where effect is desired. P.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Many herbaceous plants, such as Phloxes, Michaelmas Daisies and Golden Rods, will now be making growth rapidly, and much good may be done by thinning the shoots in the early stages of their growth. It is a mistake to leave more than three or four of the strongest to each clump; these, if the weakly ones are promptly removed, will be quite sufficient to furnish the plant, and will also produce finer flowers. The soil between all kinds of herbaceous plants may now be freely hoed; this will keep down weeds and, at the same time, aërate the soil and prevent the free escape of moisture. Where Calceolarias are to play a part in the summer bedding, no time must be lost in preparing the soil for their reception, as they should be planted out the first week in May, having previously been thoroughly hardened by free exposure to air and light. By planting early the sudden collapse which sometimes occurs among these plants is, to some extent, avoided.

1.—A SEEDLING AURICULA POTTED UP IN A DEEP 2½-INCH POT, IN WHICH IT WILL REMAIN UNTIL WELL ROOTED, WHEN THE PLANT MAY BE REPOTTED OR PLANTED OUTDOORS.

Vegetable Garden.—More salads, such as Lettuces and Radishes, must be sown to follow the earlier crops. A small sowing and often is a good motto to observe when dealing with these. Provide them with good soil, and if the weather is dry they must be frequently and thoroughly watered, as quick growth is absolutely essential if the produce is to be worth eating. Finish off the planting of maincrop Potatoes without delay, as they will now commence to deteriorate if left out of the ground. As these are usually stronger growing than the earlier varieties, it is a good plan to allow a greater distance between the rows and sets; 2 feet between the rows and the plants 18 inches asunder is none too much, and some growers prefer to allow 1 inch or 2 inches more. A few dwarf French Beans may now be put in where a warm and sheltered spot is available, but the principal sowing should be deferred for another week at least. Make the rows 15 inches apart and sow three seeds at each station, these being 10 inches apart. One inch is quite deep enough to sow this early crop; if placed lower the seeds will probably try to germinate and then rot. The main sowing of Carrots must now be made. Most growers prefer a long-rooted variety for this crop and allow a distance of at least 12 inches between the rows. If the weather is dry, well water the drills before sowing the seeds; then sow at once and cover in as quickly as possible, and a few hours later tread the whole down firmly.

Fruit Garden.—Where the Strawberry-bed has not been mulched with strawy manure as advised a few weeks ago, this work must be done at once, otherwise the straw will not be washed clean by the time it is required to prevent the fruits being splashed by heavy rains. If it cannot be put on now, the grower must rely on clean straw for the fruits to rest upon, this being placed among the plants when the green fruits are swelling freely.

Greenhouse and Frames.—All kinds of bedding plants should now be in the frames, or, failing this, on shelves near the glass in the greenhouse, the chief work consisting of supplying them with water and fresh air in abundance, so that their tissues become thoroughly hardened. Space them out well so that air can circulate freely among them. Young Fuchsias are now growing rapidly and will require repotting at frequent intervals. They like a moderately rich soil, a mixture composed of good loam two parts, dried, flaky manure one part, with a little bone-meal and sand added suiting them admirably. To keep them in good shape it will be necessary with many varieties to pinch out the tips of the shoots occasionally; but do not do this just before or directly after repotting, else a double check will be given to the plants. Greenhouse climbers are now making masses of growth, and in many instances much good will be done by removing early some, at least, of the weakest shoots. Keep a keen watch for insect pests of all kinds, and spray, sponge or vaporise as soon as the enemy is detected, and so prevent its spread and subsequent devastation of the plants. For most insects a light fumigation once a fortnight is sufficient during the summer months.

H.

RAISING AND INCREASING ALPINE AURICULAS.

PRIMULA AURICULA, as botanists call it, is represented by two types. The florists' Auricula is one type, in this instance having white-edged, grey-edged, green-edged and self-coloured flowers. The more beautiful and attractive type, however, is that known as the alpine Auricula, a class of plants especially well adapted for outdoor border culture. There may be readers who would rather raise a batch of seedlings and grow on these in preference to making a purchase of established plants, and we will briefly tell how the seedlings may be raised. Opinions differ respecting the period when the seed should be sown. Many growers choose March as the period for commencing operations. By these means the seedlings are apparent in good time, and it is possible to hurry on a batch of seedling plants to make a good show in the succeeding year. In our judgment it is better to make a sowing at a later period, as by so doing it is possible to utilise new seed with a better prospect of raising a greater number of seedlings. As a rule the seed ripens in July, and those who wait until then may proceed with a greater certainty of success. Pots or pans may be used for the purpose of seed-sowing, but we prefer ordinary seed-pans or shallow boxes; in deep boxes or pots the soil sometimes becomes soured. Afford good drainage by using plenty of crocks, and cover the latter with moss or some of the rougher siftings of the soil to prevent the finer particles working down into the drainage. Suitable compost for seed-sowing should comprise sandy loam and leaf-mould in equal proportions, and these must be passed through a rather fine sieve. Subsequently well mix the heap of soil before using. When thoroughly mixed fill the pans, pots or shallow boxes with the compost, preparing the drainage of each receptacle beforehand as already suggested. Make the surface soil quite level, and, if possible, let there be a layer of rather finer soil placed on the surface as a finale.

Sow the seeds rather thinly, as it will be so much easier then to lift the resulting seedlings. Auricula seed takes three weeks to a month to germinate. Many seeds will germinate even after a much longer period, and some may not be seen until the succeeding spring; for this reason do not throw away the soil in the different receptacles. Place the seed-pans, &c., in the cold frame, maintaining the soil in a pleasantly moist condition throughout the propagating period. When bottom-heat is afforded this needs to be done with the greatest care. As soon as the seedlings have formed the third or fourth leaf they should be lifted with care and potted up into small pots, as shown in Fig. 1. Boxes may be used for the same purpose if more convenient, pricking off the seedlings 1 inch or 2 inches apart, afterwards placing the boxes in the cold frame until the succeeding spring. This latter method applies more especially to seed sown in the early spring.

By dividing the old plants at the proper time the grower may very easily increase his stock and, at the same time, perpetuate the better plants in his collection. Plants that have been in the border for some three years will have become unduly large and possess many offsets, and they should be lifted after flowering and divided into as many pieces as convenient.

Fig. 2 represents a plant that has been lifted at the conclusion of the flowering season. It is a plant some three years old, and has about ten offsets with which to increase and perpetuate the variety. The three offsets in Fig. 3 represent three of the strongest and most vigorous pieces of the old plant seen in Fig. 2. Note their strong and vigorous character and the plentiful supply of roots adhering. These divided pieces should be potted up individually in pots 3 inches in diameter. Compost as recommended for raising seedlings will answer. Press the soil firmly round the base of the divided pieces so that the former adheres to the latter.

Fig. 4 represents one little cluster of the smaller offsets, of which there are several on most old plants. Pieces of this kind may be broken asunder quite easily. They should then be potted up individually in deep 3-inch pots, and will make useful plants in the next flowering season. Many

2.—AN AURICULA PLANT THREE YEARS OLD LIFTED FOR THE PURPOSE OF DIVIDING. NOTE THE MASS OF GROWTHS.

3.—THREE OF THE STRONGEST OFFSETS DETACHED FROM THE OLD PLANT SHOWN IN FIG. 2.

growers of the alpine Auricula lift and divide their plants and plant the divided portions in their flowering quarters straight away. This may be considered a somewhat rough-and-ready means of dealing with them, and may or may not commend itself to some readers. It is a common practice in the gardens of the cottager, and the results achieved by these means are really remarkable. D. B. C.

ROSES IN GREENHOUSES AND POTS.

If Roses are to be grown successfully planted out in greenhouses and conservatories, or grown in flower-pots, constant attention must now be given to their various requirements. In the first place free ventilation is most essential. The branches are, as a rule, grown and trained just under the roof-glass—in the case of specimens planted in the borders—and if any reader, being also a cultivator of climbing Roses, has placed his head close to the roof-glass when the sun was shining brightly, he would realise how scorchingly hot it was just there. Unless free and judicious ventilation be the rule during hot weather, the Roses will suffer. It is quite a mistake to bake them in such a way under glass, and the season is now approaching when very careful treatment is needed.

If mildew appears on the foliage no time must be lost in freeing it from the fungus. Boil gently for twenty minutes 4oz. of soft soap in two quarts of rain-water, then add 4oz. of flowers of sulphur and boil for ten minutes longer. Allow the liquid to cool, and when required for use add a tumblerful of it to one gallon of rain-water and thoroughly saturate the leaves on both sides with the solution, using the syringe forcibly. Half the strength may be used occasionally as a preventive.

Roses in Pots.—The soil in the pots will dry up quickly at this season, and if watering be neglected much harm will result. Mildew will infest the leaves of pot plants, too, especially if the roots are allowed to suffer through lack of water occasionally. It is not advisable, however, to be constantly pouring cold water into the pots, as the roots get chilled so much. The better plan is to plunge the pots in ashes or pack them in Cocoanut fibre refuse, or to place boards on edge on the sunny side of the rows of pots. These latter hints apply to young plants and those that have been forced in pots. SHAMROCK.

THE PROPER DISTANCE APART TO PLANT BEDDING PLANTS.

VERY shortly the work of putting out the bedding plants for the summer will claim attention. The spring propagation of the plants is now being completed, and it will be advisable to examine the whole stock of plants and ascertain, by carefully measuring the beds, whether it is sufficient to duly fill them. Now, in putting out the plants the cultivator must make due allowance for their future growth. If, we will say, the plants are put out during the end of May and the first week in June, the shoots and leaves ought to almost touch each other by the middle of July. Of course, the distance apart to plant must really depend upon the size of the specimens when the latter are put out. Small ones must be planted closer together than large plants, so the medium-sized ones are referred to here as a true guide. Then it would be wise on the part of the cultivator to make large, leggy plants go as far as possible; that is, to plant all such in a slanting position, so as to cover a good deal of border surface. Calceolaria plants, which are 7 inches across, must be planted 1 foot apart; Zonal Pelargoniums, which measure 9 inches across, ought to be put out at a distance of 15 inches apart; Heliotrope, 5 inches in diameter, must be allowed a distance between them of 10 inches; Fuchsias, 1 foot across, should be planted 18 inches apart; Violas, intended for groundwork, must be put out 7 inches asunder; and dot plants in the same beds, such as Fuchsias, Lantanas or Liliums, 3 feet 6 inches apart. All the distances given are to be measured from stem to stem of the plants and not the space between the branches. The above examples will be sufficient to serve as a guide. Small specimens, which are being planted to serve as edgings to beds or for carpet bedding, must be put out so that the leaves nearly touch each other in the case of all the plants. SHAMROCK.

A LITTLE-KNOWN GREENHOUSE PLANT.

LEUCOPOGON LANCEOLATUS.—This graceful greenhouse plant was introduced into English gardens about 100 years ago, but, like many other New Holland plants, it is now rarely seen in cultivation. The plant forms an erect, much-branched shrub from 2ft. to 3ft. high. The spikes of small white flowers, which resemble those of Epacris, are freely produced during the winter months, and will last in a fresh condition for at least a month or six weeks. Cuttings root readily if inserted during August in sandy peat, placing them in gentle heat and covering with a bell-glass until rooted, when they should be potted into a compost consisting of two parts peat to one of loam, with a good proportion of sand added. This Leucopogon requires greenhouse treatment the greater part of the year, but derives much benefit if stood outside during the summer. W. T.

4.—A CLUSTER OF OFFSETS THAT MAY BE DIVIDED BY PRESSING THEM ASUNDER. EACH OFFSET WILL HAVE SEVERAL ROOTS ADHERING.

THE TOWN GARDEN.

WORK will now be very brisk in the town garden. The showers which have fallen lately have freshened up spring-flowering plants considerably, and the warm weather will now induce quick growth. Where the soil is of a clayey nature, vegetation will be somewhat behind that more favourably located, but during a very dry summer the floral display in the clayey garden may surpass that of the lighter soil; so we see there are compensations in every case, and there are difficulties to overcome in every instance, too. The true gardener—the enthusiast—takes a great delight in overcoming all difficulties, and when he conquers he only rests for a time—a very short time indeed—before he tackles a fresh branch of gardening, being equally determined to succeed in it also. In all soils, and especially in clayey ones, much damage may be done to young plants by

SLUGS.—I know that many persons think that a severe winter period is very destructive to insect pests. It is in certain cases, but in others, especially in exposed positions, less harm is done to insects by frosts than in more favourable seasons when frosts are not severe and less frequent. In very cold, frosty weather these pests go deeper into the soil and remain there until warmer weather comes, so they are comparatively safe. In less severe weather they come to the surface and very often get nipped by the frost just hard enough to kill them. I have often seen bees fly away from their hives in sunny weather and get caught in a storm, then fall to the ground and never rise on wings again. Beware, ye town gardeners, of a raid by slugs; watch for them, be prepared and so save the young crops from destruction. Tender annuals, Lettuces, the young shoots of Delphiniums and other plants soon fall a prey to slugs if not protected. Sharp coal-ashes are very useful, as slugs cannot crawl over them freely, and when they are scattered around the crowns of herbaceous plants and near the stems and leaves of tender annuals, they prove a good safeguard. Dry lime carefully sprinkled on the soil near the plants, and also soot, the latter separately, not with the lime, prevent the attacks of slugs. Kilogrub, Vaporite and Alphol, used according to the instructions given with them, are good remedies; thus the town gardener can easily arm himself against the attacks of slugs.

THE GREENHOUSE AND CONSERVATORY.—Climbing plants in both small and large greenhouses and conservatories must be examined very thoroughly now. If dead branches and faded leaves are left on these roof and pillar plants, there will be a constant litter on the floor and among the occupants of the stages. Cut away all dead shoots and branches that would tend to cause overcrowding, and then vigorously shake down the useless leaves. A clear course will thus be obtained for the retying of the remaining shoots. If brown scale and mealy bug are found on the plants, the cultivator must lose no time in getting rid of the pests. It is a very wise thing to do; then there will be no risk of the new shoots becoming infested with the insects.

STAGE PLANTS.—Zonal Pelargoniums, which are difficult to keep in good health during the depth of winter in cool structures where moisture is very prevalent, are growing again freely. For a display next autumn the cultivator must make preparations now. A batch of cuttings put in at once, and the resultant rooted plants grown in the open air throughout the summer, will prove a welcome addition to the stock of greenhouse flowering plants next autumn. Cinerarias must be watered with care and kept free from green aphis. Fumigation and vaporising are sure remedies, but both must be done while the blossoms and foliage are dry. Cyclamens and bulbs which have finished flowering must be removed to a frame and well cared for there until growth is finished. AVON.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUIT DEPARTMENT.

MELONS.—Plants which have set their fruits rather irregularly should receive immediate attention, and those fruits which are too much in advance of the majority to form an even crop may be cut off. If the plants are growing in pots or the roots are otherwise restricted, about four fruits to each will be ample, and with the larger-fruiting varieties two or three will usually be found sufficient; but where the plants are strong and robust and have an unrestricted root-run, five or six fruits may be left. Keep the roots in a healthy state by frequently top-dressing with good loam, which should be placed over the roots in a warm state and about 1 inch in thickness, and then pressed very firmly with a brick, or a block of wood formed for the purpose. Do not allow the plants to suffer from want of moisture at the roots, and syringe the foliage twice daily in bright weather, but in dull weather be content with sprinkling the paths and borders through a rosed water-can. Attend carefully to the stopping and tying down of the laterals of later plants, doing this a little at a time. Keep the air a little drier when in flower, and carefully fertilise the blooms when enough are open at one time to form a crop.

Strawberries.—Abundance of water and liquid manure should be afforded all plants which are fast swelling their fruit, and use the syringe freely in bright weather till the berries begin to change colour, when both manure and syringing must be withheld. For syringing purposes let the water be very clean. As the fruits change colour, air more freely and keep the house a little more dry to encourage flavour, but do not lower the temperature too rapidly. Introduce more plants to keep up a constant supply of fruit till the outside crops are ripe. The latest batches may be ripened in cold frames if such are at liberty. Top-dress with good soil and be very careful with the syringe in dull weather, otherwise mildew may appear.

Oranges.—Any repotting of these to be done must be no longer delayed. Oranges do not like the roots disturbed, so employ good, sweet, lasting loam containing plenty of fibre and a little decayed manure and grit, and pot rather firmly. If in tubs, see that the soil is rammed well down to the drainage between the mass of roots and the tub. Keep the plants growing for a time in a sweet, moist atmosphere. Trees planted out will greatly benefit by the removal of a portion of the top soil, replacing it with fresh. If the roots have got into a cold, sour compost and the plants have a sickly appearance, lifting entirely and replanting after the borders have been thoroughly put right is the only method to adopt. The plants should then be shaded and well syringed, and the house kept close for some time.

PLANTS UNDER GLASS.

Primulas.—Seeds may now be sown for flowering early next season, and another batch may be raised a little later. Sow the seed in well-drained pots or pans, using a mixture of sweet sandy soil and leaf-mould. Stand the pots in a temperature of 55° and shade with paper over squares of glass till the seedlings appear above the soil, when both should be gradually removed. A sowing of Cinerarias may be made at the same time and treated in the same way.

Begonia Gloire de Lorraine.—Keep propagating these if enough plants have not already been struck. They should by the end of the season grow into nice serviceable specimens.

Camellias.—These will now be past their flowering, and may be slightly pruned to keep them within reasonable bounds. Any potting to be done must be attended to at once, and large planted-out bushes will be all the better for a good top-dressing. See that the roots are well supplied with water and liquid manure in a weak state at intervals. These plants must be well shaded and kept syringed to induce healthy flowering wood.

H. MARKHAM.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

VEGETABLE DEPARTMENT.

POTATOES.—The planting of maincrop varieties should be completed as soon as possible. Thirty inches between the rows and 12 inches from set to set is ample space, for if this is much exceeded abnormally large and coarse tubers would most likely be produced. Each district, as a rule, gives prominence to some particular variety, according to its suitability of soil and climate, and taking the North Country as a whole, Up-to-Date probably holds the distinction of being the most popular and largely cultivated variety at present.

Peas.—From now onwards maincrop and late varieties of these should be sown at fortnightly intervals. If wanted for a particular purpose or time, about twelve weeks between sowing and development of the produce must be allowed. For exhibition purposes large-podded varieties are most in favour, and in this Carter's Quite Content undoubtedly heads the list, though there are several others—notably, Duke of Albany and Gladstone—that are in every way excellent. To obtain the best results ample space must be given the plants, so that light and air may have free access, and to this end dwarf crops, such as Potatoes, Cabbages or Cauliflowers, may be grown between the rows. At this time thin sowing may with safety be practised, and should germination prove very satisfactory, thinning of the plants to 4 inches apart should be early carried out. Before supports are placed to the rows all weeds should be removed and the surface soil stirred, afterwards drawing a ridge of the same on either side. Support of some kind must be given when the plants are a few inches in height, light brushwood answering well at first, while later stout branches, properly trimmed, or Pea trainers can be applied as the plants advance.

Salsify, Scorzonera, Chicory and Beetroot may now be sown upon ground that has been deeply worked but not recently manured. Turnips are prone to form seed-stems rather than bulbs in hot weather, hence small sowings at short intervals upon a cool site should be made. Snowball and Orange Jelly are two excellent varieties.

FLOWER GARDEN AND BORDERS.

Sweet Peas raised in pots and properly hardened may now be planted out, leaving the soil around in a basin-like cavity to facilitate watering later on. Sparrows are often troublesome, but by making the foliage distasteful with soot or soft soap decoction this will keep them at bay.

Gladioli started in pots may also be planted; these should be deeply inserted so that the soil around protects the foliage against wind.

HARDY FRUIT.

Fig Trees which have been covered as a protection from frost may now have the material removed if growth is visible; but it is prudent to have mats or a sheet of tiffany at hand in case of severe frost. Last year the greatest harm to the trees, resulting in the entire loss of crop, occurred at the end of April. Pruning and nailing may be carried out as opportunity offers. Medium-sized wood is usually the most fruitful, hence much that is weakly or unduly vigorous should be pruned away to make room for this. Afterwards the leaders may be secured to the wall, leaving most of the short spur growths in their natural positions. Manure is seldom required by young Fig trees, but those aged are often benefited by having a dressing of some phosphatic manure applied.

JAMES DAY.
(Gardener to the Earl of Galloway.)
Galloway House, Garlieston, Wigtownshire.

THE EDITOR'S TABLE

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London, W.C.

RHODODENDRON GRANDE ARGENTEUM.

Mr. W. A. Cook, The Gardens, Leonardslee, Horsham, Sussex, sends us a fine truss of this Rhododendron. He writes: "I enclose a truss of that splendid early flowering Rhododendron grande argenteum. It is a most interesting flower, both by day and night. When the flowers first open they have a slight rose tint, but after developing become nearly white; at the base of each are purple blotches and the anthers are crimson tipped. It is a very free-flowering species and young plants frequently flower, though to see it at its beauty one must have a plant bearing 100 trusses. It is a charming plant for a Rhododendron house or a cool conservatory, as the foliage at all times is extremely beautiful, the white under-sides of the leaves being particularly striking. Great care should be exercised with regard to watering; the plants take quantities of water during the growing season, and if allowed to suffer the tips of the leaves soon turn brown and greatly disfigure the plant. Most species very much resent bad treatment, and sooner or later the plant dwindles away to a mere stick. A suitable soil is one-third peat, loam and leaf-soil, with a small quantity of cow-manure and sharp sand."

A NEW SPRING-FLOWERING TREE.

Messrs. R. Veitch and Son of Exeter send us a most interesting plant, the double form of Prunus Pissardi called Moseri fl.-pl., and we feel sure this will become a very popular tree, as the type is suitable for either the suburbs of big towns or the country. Messrs. Veitch also send the single white Camellia Devonia, which is one of the most beautiful things we have seen in the way of Camellias for years.

A NEW VIOLET—DEVONIA.

Mr. J. Heath sends from The Nurseries, Kingskerswell, Devon, flowers of a new Violet named Devonia, which we hope to show in a coloured plate. The flower is deep blue, large, without any suggestion of coarseness, and strongly scented. It is a variety of great merit.

PSORALEA PINNATA FROM ASCOT.

We have received from Mr. Chaplin, gardener to Mrs. Bulteel, Book Lodge, Cheapside, Ascot, some sprays of Psoralea pinnata. It is such a delightful flowering plant that one cannot help feeling we are decided losers by the comparative neglect into which hard-wooded plants in general have now fallen. In our forefathers' days this Psoralea was generally grown; now, in common with the Leschenaultias, Hoveas, Pultenæas, &c., it is almost unknown. Psoralea pinnata is an evergreen shrub, native of South Africa, and

therefore requires ordinary greenhouse treatment. The leaves, which are made up of several pairs of very narrow leaflets, are of a dark green tint, while from the axils thereof towards the points of the shoots the flowers are produced. They are Pea-shaped, and in colour a very pleasing shade of purplish blue, marked with white in the centre. This Psoralea must have been one of the earliest plants received from Cape Colony, for the "Dictionary of Gardening" gives the date of its introduction as 1690, that is, two years before Agapanthus umbellatus arrived here.

Daffodils from Ireland.

Mr. W. Baylor Hartland sends us from his Ard-Cairn Nurseries a few flowers of the beautiful large trumpet Daffodil named after himself. He writes on the 6th inst. as follows: "I so seldom come now to London and, in consequence, send you herewith a few blooms of my Daffodil, the same being a big bicolor named by the late F. W. Burbidge Wm. Baylor Hartland, as he thought it good enough for the name. I have now in flower two magnificent Daffodils, viz., Bedouin and The Czarina, which are splendid indeed; also Lord Roberts, Homespun and others."

Pansies and Violas from Dobbie's.

Messrs. Dobbie and Co. of Rothesay send us some magnificent flowers of their famous Pansies and Violas, these being of very large size, rich and well-defined colours and delightfully fragrant. Among the Pansies, those that specially appealed to us were Miss Neil, with large velvety blotches, edged creamy white; Mrs. Butler, large violet blotches, edged rich cream, this being pencilled with crimson; Mr. B. Wellbourne, a very large flower with large, brown-black blotches, laced primrose, the upper petals being violet coloured; Mrs. H. Stuart, deep claret blotches, edged pale cream, suffused pale rose, the upper petals creamy white with rose markings; and Mrs. Campbell, claret blotches, edged with very rich clear yellow, a very handsome flower indeed. Of the Violas, Redbraes Yellow, a pure rayless rich yellow; Snowflake, large, pure white rayless flowers with yellow eye; W. P. A. Smyth, pale sulphur rayed flower with very faint edging of purple; Mrs. H. Pearce, large, pure white with yellow eye; Wm. Lockwood, large, rich yellow rayless; Maggie Clunas, canary yellow, slightly rayed; Lizzie Storer, glossy black lower petals, each tipped with lavender, upper petals clear lavender; Mrs. J. H. Rowland, rosy mauve; and George G. Murray, side and bottom petals black, upper petals sky blue, were a few of the best.

Daffodils from Mr. Peter Barr, V.M.H.

Mr. Peter Barr, V.M.H., sends us another interesting collection of Daffodils from his Scottish home. Among others were Bicolor of Tuscany, a form of pseudo-Narcissus; and Alfred Tait, a charming little hybrid between N. cyclamineus and Tazetta, raised by Mr. Tait of Oporto. Of this Mr. Barr remarks that it appears to be of good constitution, having flowered two years in the same spot. Golden Spur was welcome with its rich yellow blossoms, as was the dainty little Moschatus. King of Spain and Queen of Spain, grown indoors, were good, and we were pleased to renew our acquaintance with Queen Anne's double Daffodil.

BOOKS.

Pronunciation of Plant Names.* A little book that will be helpful to those who have more than a superficial interest in gardening. As mentioned in the preface, "The list makes no pretence to be exhaustive. . . . No pretence is made of assuming the *rôle* of the reformer, but the list is the outcome of an endeavour to indicate the pronunciation most nearly in accordance with the best usage, or the higher authority." We welcome this book. The price is 1s. net, or 1s. 2d. post free.

* "Pronunciation of Plant Names." The *Gardener's Chronicle*, Limited, 41, Wellington Street, Covent Garden, W.C.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* The Garden *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* Editor *of* The Garden, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* Publisher. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Manure for Daffodils and Tulips (*Ascot*).—The point to remember in applying manure of any kind to both Daffodils and Tulips is that they do not like nitrogen, and that, as a rule, a good phosphoric manure suits them. Whatever kind is used, it is best when well mixed with the soil a short time before the bulbs are planted. Now the roots are a considerable distance from the top of the ground and it is doubtful how much will reach them. It might be well to try watering two or three times at intervals of ten days with a very weak solution of superphosphate of lime, say, a quarter of an ounce to a gallon; or, if procurable, we believe a thin dusting of dried blood might have good results.

Stopping and timing Chrysanthemums (*T. W. W.*).—Your selection embraces Chrysanthemums of Japanese incurved and Japanese Anemone types, and you cannot do better than treat them as follows: Mrs. Coombes, Beatrice May, Miss Alice Byron, Phœbus, President Loubet and Sir Walter Raleigh (Anemone) at once, second crown; Souv. de Petite Amie, natural break, second crown; and Major Bonaffon (incurved) at once and again at the end of June, second crown. We do not know the two others you mention.

Pond for Water Lilies (*E. Hinckly*).—We do not know of anything of a green or brown colour that would be suitable, but you might modify the grey of the cement by mixing a wash of blue clay, applying this to the sides. It is quite possible, however, that the sediment would soon obscure the colour referred to. The artistic character or appearance of these receptacles depends entirely on the method of construction, and the swimming-bath effect need not have existed unless the pond is in a very restricted area. The sides and margin should always present a serpentine outline, and by arranging the tank in a slight depression and thereby assuming the natural declivity of a pond, it is possible to turf down to and occasionally over the margin, and, while hiding the latter from view, render it more natural and pleasant to look upon.

Flowering plants for Delphinium bed (*E. V.*)—There are several subjects you could place among the Delphinium clumps when these latter have been cut back after their first blossoming. Various Lilies are now procurable in pots, and they would look nice. You could also bring along some pots of Sweet Peas, but we think China or Polyantha Roses would have a very beautiful effect. These are procurable in 6-inch pots. They are constantly in bloom, and if carefully plunged in the soil up to the rim of the pot would do well. They would need careful watching to see they did not suffer for the want of water, and should be given a little liquid manure once a week. Dark-leaved Cannas would harmonise well with the second flowering of the Delphiniums, and they can always be kept in bounds, besides which, if they are planted in their pots, over-luxuriance would be checked; Ivy-leaf Geraniums trained in pyramidal form or Fuchsias and yellow and white Marguerites.

ROSE GARDEN.

Roses near London (*H. A. Fordham*). We have much pleasure in assisting you as far as we are able. Your arrangement is excellent. One cannot have the beds too simple, and it is always advisable to avoid having beds too large and thus prevent the necessity of treading on the soil. We think you would have done well to have kept the Hybrid Perpetuals in a bed to themselves. No. 13, Magna Charta, will grow rather strongly and would have been better in the place of No. 11. No. 14 should have been in the place of No. 12. No. 15 we should not have at all, as it is only an exhibitor's Rose and is very difficult to grow. You have placed two yellows close together, Nos. 32 and 33. These should have had a crimson between them so as to have enhanced their beauty. We fear you will find No. 36 rather tender. With these exceptions we consider your collection and arrangement very good; but you are rather badly handicapped living so near London. You must take care to keep the foliage well syringed three or four times a week if possible. As to manuring, it would be an excellent plan, seeing your soil is light and subsoil gravel, if you could afford to give all the beds a good dressing of cow-manure, which some dairyman would probably supply you with. Cover the beds entirely and then put some soil all over it to hide the objectionable appearance. As a further stimulant you could water the plants with guano water, commencing at the end of May, until they begin to bloom, about 1 oz. to one gallon of water, and give each plant about two quarts once a week. The bed planted this spring had not better receive any guano. We advise you to go over the beds and press your foot against each plant, so as to make the soil firm about their roots. Do this before giving manure.

Red and white Roses for St. George's Day (*Colonel C. G. M.*).—For red varieties to bloom by this date you could have either Liberty, Richmond or Captain Hayward, and for white Frau Karl Druschki, Niphetos or L'Innocence. You could possibly procure pot plants in bud a week or so before the date from our best Rose-growers.

TREES AND SHRUBS.

Daphne indica (*Red Rose*).—While we sympathise with you in your desire to obtain so fragrant and beautiful a subject in the open, we are afraid that your chances of successfully grafting it there are not great, and particularly so if the stock plant is not established in its position. It would have been better if the stock plant had been moved to its permanent quarters early last autumn, as the grafting could now have been done with less risk. In the circumstances you had better try two plants, one each way, and if the bush is large enough, put several grafts on each plant. The species you refer to (D. Laureola) makes a capital stock and should be cut down rather low, leaving several branches of mature growth about the size of a cedar-wood pencil. These branches should be cut off horizontally, leaving a spur to each of 2 inches in length for grafting. The form of graft known as splice will be the best, the splice consisting of a cut in a slanting upward direction on the stock, and a corresponding one in an opposite or downward direction on the scion, so that the parts fit closely together, the bark meeting on the one side if not on both. Clean cuts are desirable, and you might first practise on other useless material with advantage. Firm wood and such as is not in active growth should be used as scions or grafts, and the parts must be bound together with raffia without delay. Finally, tempered clay mingled with light stable manure, free of straw, should be plastered round each graft to exclude air and moisture. If success attends your efforts, it will be a year or two before your plant is large enough to make a display, and the plants should certainly be protected in winter. These Daphnes are usually grafted during the winter season under glass in a temperature of about 45°, small seedling plants of D. Laureola or D. Mezereum, well established in pots, being employed as a stock. Cuttings are very difficult to root, and may remain for months apparently alive and then perish; but where large plants exist, layering or

pegging down of the branches is usually attended by successful results. If you have no experience in the matter of grafting, your better plan would be to purchase a good plant and bed it out, and if D. indica does not prove hardy you should try its much hardier counterpart, D. japonica, which is quite reliable in this respect.

Name and treatment of shrub (*I. F. Smith*).—The specimen you send is Ceanothus rigidus. You can plant it against a wall with an east aspect in Somerset and look for it to form a fine specimen. It thrives in light, loamy soil better than in that of a heavy character. It ought to thrive excellently in your neighbourhood, though it is a rather tender plant. In more northern counties the plan is adopted of inserting a few cuttings each autumn and keeping them in a frame or cold house throughout the winter, so that in the event of a plant being killed by severe frost the stock is not entirely lost. C. rigidus is one of the most beautiful species of the family.

THE GREENHOUSE.

Culture of Poinsettias (*A. May*).—Poinsettias should, when the bracts have faded, be placed in the greenhouse and kept dry, this being termed giving them a rest. Then early in May they should be brought out, the soft parts of the tops of the shoots cut off, and the plants placed in the temperature of an intermediate house, water being given and the plants freely syringed. This will lead to numerous young shoots being pushed forth, and when these are nearly 3 inches long they are ready to be taken as cuttings. The cutting may be formed of an entire shoot with its swollen base just where it starts from the old wood, as from this spot roots are freely produced. Each cutting should be inserted in a small pot, which must be clean and well drained. A sandy soil is very effective as a rooting medium. The cuttings must be put in a close propagating case in a warm structure, where if care is taken not to over-water they will soon root. As soon as rooted the cuttings must be exposed to light and air. In a short time they will be ready for a shift into pots 5 inches in diameter. A very suitable soil for Poinsettias consists of good fibrous loam lightened by a mixture of leaf-mould, dried cow-manure and sand. When potted the plants may be placed in a frame, and as soon as they become established should be inured to plenty of light and air in order to promote sturdy growth. When the pots are well filled with roots, weak liquid manure occasionally is very helpful. Though Poinsettias may be kept in a frame during the summer, they must not be allowed to remain therein too late in the autumn, otherwise many of the bottom leaves are apt to turn yellow and drop. Early in September they should, if possible, be placed near the glass in a house where an average temperature of 60° or thereabouts can be maintained. As soon as the bracts are seen they will be increased in size if a little additional heat is given. When developed they keep better in a cooler and drier atmosphere.

Paint for hot-water pipes (*Mrs. J. F.*).—The paint we use for hot-water pipes, which always proves satisfactory, is made of boiled linseed oil and lamp-black into which just a little terebine is put.

Cineraria leaves curling (*Miss J. H. C.*).—No doubt your Cinerarias have been kept too warm, and, as the leaves are in consequence lacking in substance, they curl up now that the increased heat of the sun imparts an additional strain upon them.

KITCHEN GARDEN.

Raising Cucumbers and Marrows (*Novice*).—Frames so small as 2½ feet square are large enough to raise Cucumber and Marrow plants in, but not to grow them in. Cucumbers need most warmth. If you make up a manure-bed you should shake out from the manure (which must be that of horses) the largest straw, then well damp what remains and turn it into a round heap. Let it lie to become partially warm, then turn and mix it again, also damping it if at all dry. Turn it again a third time, and after a few days make it up into a solid bed in a warm position, and place on it your two frames side by side if your manure will make the bed large enough; if not, be content with one frame. Put into it 4 inches of good soil. Wait a few days until the strong heat has slightly declined; then sow six Cucumber seeds in a 5-inch pot, or the same number in more pots, also the same of Marrow seeds; gently water and stand in the frame. Sow seed of some Tomato more thickly in pots at the same time. With care and avoiding damp you should soon have plenty of plants. You should in the meantime collect more manure, and after treating this as advised for the other, make up in a sunny position a larger and very solid bed, and have a frame 6 feet by 4 feet put on that in which to grow, say, two of your Cucumber plants, as these would soon fill it. The Marrow plants might be put out for a time in the small frame on the first bed, and later this can be removed, letting the plants run free. You will find Winter Beauty or Sunrise good Tomatoes. Do not put your hot-beds near your house-wall, but leave that free for planting your Tomato plants against it. Do that at the end of May, when the plants are 12 inches in height, and keep all side shoots from the main stems hard pinched out.

Tomato plants diseased (*F. J. Collier*).—The Tomato plants arrived packed in dry cotton-wool, the worst kind of packing material that can be used, increasing the difficulty of examining the plants to a very great extent. No fungus or insect pest is apparent on the plants, and it would rather appear, so far as can be seen, that they have been exposed to a sudden change of temperature or a supply of fertiliser greater than they can put up with. If the trouble spreads, please send some further examples packed in some other manner, preferably in a tin box.

Mushroom spawn in meadow (*Chloe*).—It is not always that success attends the planting of Mushroom spawn in a meadow. The character and quality of the land have much to do with the success or failure of the operation. If the soil underlying the turf is thin and poor, and the turf quickly burns in summer, it is useless to make the attempt, or if the land is inclined to be wet and cold the work will prove equally futile; but where the land is of average quality, fair depth and well drained, then the work may be undertaken with every prospect of success. From the middle of April until the middle of May is a good time to insert the spawn. The first thing to do is to prepare fresh horse manure (from horses fed on corn) with half its bulk of the short littery straw which is usually collected with the manure. This should be taken out of the stables every morning and laid out on the floor of an open shed (or some other place where it can be protected from rain) 4 inches deep, the object being to dry the manure by the agency of sun and wind, and this is effected, at this drying time of the year, in from seven to ten days by turning the manure over every other day. At the end of ten days it will be ready for throwing up into a heap, pressing it down firmly. At the end of seven days the manure will be heating violently, when the heap should be opened and spread out for the rank steam to escape. After it has had time to cool (a couple of hours) the manure should again be placed in a heap for a further seven days, when it will be ready for placing in the ground. The land should be prepared in the following way for receiving the spawn: Dig a hole in the turf 1 foot deep and 1 foot square (first cutting the turf 3 inches deep and preserving it intact for relaying). Fill this hole to within 4 inches of the surface with the prepared manure, ramming it down hard. Plant the spawn in this manure, one piece (the size of a hen's egg) in the middle and one at each corner, making five pieces in all. The top part of the spawn when inserted should be level with the surface of the manure. Place 1 inch of the soil taken out of the hole on the top of the manure and spawn, pressing it down hard, and on the top of this place the turf, ramming it hard. Cover the turf over with soil a quarter of an inch deep to prevent the sun drying it before it has had time to start growing. In the ordinary course of things the spawn will first run into the manure, and afterwards permeate the soil for some distance round the hole in which it has been placed, and if all has gone on well, Mushrooms should be looked for from the end of August to the middle of October. Sometimes they do not appear before the second year, much depending on weather conditions. We should try the experiment on a small scale first; should it turn out a success, you would have confidence in extending the planting. It is of great importance to have the best spawn, and it should not be more than one year old.

MISCELLANEOUS.

Information about manures (*G. H. N.*).—Neither sulphate of ammonia nor muriate of potash is likely to deteriorate by keeping if kept dry. Nitrate of soda very rapidly absorbs moisture from the air and may even dissolve, owing to the amount it takes up; but if it is kept in a very dry place it will keep without deterioration for any length of time. Manures rich in nitrogen, like sulphate of ammonia and nitrate of soda, are best used for plants which are grown for their leaves, such as Cabbages; the former is less rapid in its action than the latter, which should only be applied when rapid growth is desired. The muriate of potash may be used for Potatoes and Cabbages, but much depends on the soil and other conditions, and trustworthy advice cannot be given without a knowledge of these.

Names of plants.—*Miss E. J. M.*—Saxifraga oppositifolia. The book you require is "Flore coloriée de poche des plantes alpines," price 6.50fr. Correvon, Geneve.——*Wm. Allum.*—1, Aspidium aculeatum Tsussimense; 2, Pteris serrulata; 3, Scolopendrium vulgare crispum; 4, Aspidium angulare; 5, Pteris tremula; 6, Pellæa rotundifolia; 7, Pteris serrulata cristata; 8, Aspidium falcatum; 9, Fatsia japonica; 10, Asplenium bulbiferum.——*Hal.*—Chionodoxa Luciliæ.

SOCIETIES.

BOURNEMOUTH GARDENERS' SOCIETY.

THIS prosperous society continues to do a great deal of good in the town and neighbourhood, and its members frequently have the advantage and pleasure of listening to noted lecturers on various subjects connected with horticulture. Mr. F. Lever of Bournemouth read a very interesting paper on the "Cultivation of the Cyclamen" before a large attendance of members on the 6th inst. Mr. G. Garner, Delamere Lodge, Bournemouth, presided, and, after the usual preliminary business of the meeting had been transacted, introduced the lecturer, who dealt in a concise and intelligent way with his subject. Mr. Lever laid stress upon the importance of amateurs and others who could not command a temperature in any of their houses of 70° sowing the seeds about the month of September; but where a temperature of 70° and over could be maintained, he advocated the sowing of the seeds in November. The resultant plants must be expected to flower the following spring twelve months. For exhibiting at November shows the lecturer advised intending exhibitors to rely upon older corms, as the one year old specimens were not strong enough to bear the requisite number and substance of flowers to win in keen competition. The seeds, Mr. Lever said, must be sown about 1 inch apart in pans filled with equal parts of leaf-soil and loam, and not be covered very deeply; in fact, he advised simply pressing the seeds into the surface soil with a small, blunt-ended stick and then giving a good watering through a fine-rosed watering-can, which he contended would be quite sufficient to cover the seeds as deeply as was necessary. Another point on which Mr. Lever was emphatic was the necessity of growing the plants in a fairly high temperature while they were young, and afterwards, when nearing the flowering stage, and throughout the summer months, giving them cooler treatment. From June to the end of July he advised cultivators to rest the plants by placing the pots on their sides on a north border against a wall or fence. When restarted the plants ought to be top-dressed and watered freely, and also fed freely while growing. The lecturer was a great believer in liquid manure-water and the frequent syringing overhead with clear soot-water. Further, he advised the pulling, not cutting, of the flower-stems, allowing the leaves to die away naturally and be neither cut nor pulled. A free discussion followed the reading of the paper and many questions were put to Mr. Lever, who gave very satisfactory replies. Only a few growers advocated the drying off of the plants in hot positions, and all present gave evidence of the popularity of the Cyclamen.

READING GARDENERS' ASSOCIATION.

THE usual fortnightly meeting of this association took place in the Abbey Hall on Monday, April 4, when the chairman, Mr. A. F. Bailey, presided over a good attendance of members. The lecturer for the evening, was Mr. H. C. Loader (vice-chairman), who presented a very carefully prepared paper, "Our Association: Some of Its Advantages," which was delivered in the forcible and convincing manner characteristic of him, and his remarks frequently evoked considerable applause. In enumerating the advantages of such a society, Mr. Loader dwelt considerably on the great opportunity for improvement the younger members who chose to grasp it had enjoyed by being present at Mr. Charles Foster's classes for young gardeners, which had been so successfully conducted and so well attended during the past six months. By their regular appearance at the fortnightly meetings the older members showed that they, too, were desirous of refreshing their memories as well as giving others the benefit of their experience. Mr. Loader spoke of the association as a huge partnership, the object of which was the promotion by the members to the utmost of their ability of horticulture in all its branches. In the discussion following the paper many members bore eloquent testimony to the truth of the lecturer's remarks, and also to the advantages they had reaped as members of the association. At the conclusion of the meeting a hearty vote of thanks was accorded Mr. Loader. The society's certificate of cultural merit was awarded to Mr. H. Goodger, head-gardener to Mrs. H. Collins, Stoneham House, Calcot, for a group of Sutton's Star Cinerarias. Mr. F. Townsend, gardener to the vice-president, exhibited, not for certificate, a splendid collection of Narcissi, which was greatly admired.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

THE DAHLIA.

IT is not too early, by any means, for those intending growers, amateur or otherwise, who may contemplate purchasing plants, perhaps of novelties, perchance of old-established favourites, to place their orders. Indeed, the earlier they are sent out the more likelihood of a return in the shape of the strongest plants. If the plants are received early they should not be planted outdoors until the weather is suitable. Dahlias are very tender, and will remain so to the end of gardening. It is for this reason it is unsafe to plant out even in Southern districts until the first week in June, unless some shelter be given to the plants at night for a time. This may not be easy to furnish, but nothing is gained by too early planting outdoors under any circumstances.

When young plants come to hand from the florist, the best course is to turn them out from their small pots and give them a shift into 4½-inch or 5-inch pots, using for that purpose a good soil, namely, two parts turfy loam, the third part being old hot-bed manure, leaf-soil and some sharp white sand. The potting should be firm. The small sticks supporting the plants when they arrive may be removed and replaced by rather stouter and taller ones, to which the plants should be loosely tied. If for the first two weeks they are placed in gentle warmth, good root-action will follow; then later, if consigned to a cold frame for a week to harden, the plants may for several days before being planted out be stood outdoors entirely, but sheltered from winds. Then by the first week in June, instead of being puny, late-rooted cuttings, they will be from 12 inches to 14 inches in height, stout and sturdy, and will, if properly planted, speedily become established in their new quarters. Dahlias, if required to grow strong and to produce a long succession of fine flowers, need a rich food, and to satisfy their requirements the ground on which they are planted should have previously been trenched 2 feet in depth and have worked into it a heavy dressing of half-decayed animal manure. Deeply-worked soil is essential to enable the roots to go deep into the cool conditions, as, owing to the huge leaf area the plants display, the absorption of moisture from the foliage under hot sunshine is great, and the roots have need of ample range and food to be able to provide against so great a strain.

Where Dahlias are planted promiscuously here and there, correspondingly deep, broad holes should be opened to enable the subsoil to be well broken up and liberally manured. If planted in quantity, Dahlias should be at least 4 feet apart, to allow of ample room to get among them. When the ground has been prepared as advised, the position of each plant should be marked by driving into the place a stout, new stake, which, while very securely fixed in the ground, should stand out of it from 4 feet to 5 feet, according to the variety. The taller stakes are more needed for the Cactus or decorative forms than for the older sections. When the plants are put out from the pots and on the sunny sides of the stakes, the small sticks hitherto supporting them should be removed, a single but rather loose tie with soft raffia being substituted. Until the plants have attained considerable size special watering or mulching may not be essential, but when stout and bushy and flower-buds form a soaking of liquid manure should be given each week, and later twice a week. Still further, a coat or mulch of animal manure should be laid over the roots for a breadth of 3 feet, as that will help to conserve moisture in the soil. Dahlias after absorbing sunshine are much benefited by being gently syringed overhead when the sun has passed off.

It is necessary to thin the shoots, especially if fine flowers are desired. To that end it is well to cut out the inner shoots as they form, if crowding is likely to result. Still further, the pinching out of redundant flower-buds becomes necessary where, in particular, more than one appears on a single stem. Generally one-half of the buds formed may be pinched out, and then sufficient will be left to furnish a display of flowers. If the one centre stake is the sole support to each plant, the tying into it requisite to support the brittle outer branches is apt to cause great crowding. It is best, therefore, to fix round each plant at least three other stout stakes to which the strong growths or branches can be secured, thus keeping the plants safe from wind storms, and at the same time from undue crowding.

Dahlias are divided into several sections. The show sorts, which include fancies, have very large, double, rotund flowers of many colours and markings, selfs, tipped, striped and flaked. The plants, now much dwarfer than were those of twenty years ago, seldom exceed 3 feet in height. They are, however, hardly suited for garden decoration, although greatly admired by the older race of Dahlia florists.

Much prettier and charming in the garden are the Pompons or bouquet-flowered Dahlias. These produce small or miniature shows or fancies on stiff, erect stems and very profusely, being placed well above the foliage. A favourite section of to-day is that known as

CACTUS DAHLIAS.

Their flowers from improved stocks are quaint in form and very beautiful. The petals are twisted, convolute and pointed, and now are less straight

than bent inward or incurved. Many resemble the claws of crabs or spiders. Generally the flowers are large, very full and furnish truly wonderful colours. The plants are tall, usually from 5 feet to 6 feet in rich soil, and also carry their flowers on such weak or short stems that many are buried and hidden in the leafage. For that reason these Cactus Dahlias seldom make effective garden plants. It is hoped that Dahlia raisers will henceforth devote their energies less to the production of mere exhibition varieties and more to obtaining those which will make beautiful garden plants. There is a sub-section of Cactus Dahlias known as Pompons, which are somewhat small, though so far not much else. They, however, offer material for considerable usefulness as garden flowers.

A large section generally recommended for garden culture is called decorative. The title is an odd one, inasmuch as any Dahlia that is not in some way decorative can hardly be worth growing. The section, however, includes large heavy double, semi-Cactus, semi-double, coarse singles and other forms, many of them, while not admissible into exhibition sections, being remarkably floriferous. The scarlet Glare of the Garden is a case in point, as it flowers profusely, and in that respect indicates the description of floral habit raisers should seek to emulate in their seedlings and to improve upon. Single Dahlias furnish a singularly beautiful section. They range in height from 2½ feet to 4 feet, are bushy and luxuriant in flower production; they are most attractive. Grown from cuttings or raised from seeds the plants do equally well. Flowers come and go rapidly, and render constant picking off of the seed-vessels imperative. Practically, these singles may be treated as ordinary tender annuals raised from seed under glass in the spring, then later planted out 3 feet or 4 feet apart to bloom over a long season. From a packet of seed a score of diversely marked or coloured flowering varieties can be had. The less-known tall, strong-growing Pæony-flowered section gives excellent plants to put out amid shrubs, where their large single and semi-double flowers can be seen to advantage. Of varieties of these sections the most steadfast are the show and fancy forms, as many of these are so fine as to admit of but little variation or improvement. A good twelve are Mrs. Gladstone, John Walker, R. T. Rawlings, J. T. West, Harry Keith, Colonist, Florence Tranter, Arthur Rawlings, Mrs. Saunders, S. Mortimer, the Rev. J. B. M. Camm and T. W. Girdlestone.

Of Pompons, of which section all are good, the following are excellent: Nerissa, Bacchus, Darkest of All, Tommy Keith, Emily Hopper, Jessica, Queen of Whites, Ganymede, Douglas, Little Bugler, Rosebud and Violet. With respect to Cactus Dahlias, these change so rapidly, because a flood of new ones occur every year, that it is difficult to recommend a few that may not be out of the running in a season or two. A few present good ones are J. B. Riding, Rainbow, Mrs. F. Grinstead, William Marshall, Cockatoo, Rev. A. Bridge, F. M. Stredwick, Mrs. E. Mawley, White Lady, Mrs. H. L. Brousson, Harbour Light and Hyacinth. Of named singles, and most beautiful both in colour and in markings, very charming are Mikado, Victoria, Polly Eccles, Columbine, Royal Sovereign, W. Parrott, Lettie Seale, Miss Roberts, Tommy, Formosa and Snowdrop. Generally, the double Pompons and the singles furnish the best cutting flowers.

FORTHCOMING EVENTS.

May 4.—Royal Horticultural Society. Exhibition of Flowers, Fruit, &c., 1 p.m. to 6 p.m. Lecture at 3 p.m. by Mr. C. C. Hurst on "Mendel's Law and its Application to Horticulture." Royal Horticultural Hall, Vincent Square, Westminster.

May 5 and 6.—National Auricula and Primula Society's (Midland Section) Show, Botanical Gardens, Edgbaston, Birmingham.

NOTES OF THE WEEK.

The Gardeners' Royal Benevolent Institution.—A performance of Mr. Edward Sherwood's play, "In Cyderland," will be given at the Cripplegate Theatre, Golden Lane, London, on Wednesday, May 12, in aid of the funds of the institution. Particulars may be obtained from Mr. G. J. Ingram, 175, Victoria Street, London, E.C.

Great exhibition of Orchids in America.—The Massachusetts Horticultural Society, Boston, Mass., U.S.A., is arranging for a magnificent exhibition of Orchids and other plants to be held from May 26 to May 30 inclusive next year. We have just received the preliminary schedule of prizes. For the best display of Orchid plants to fill 400 square feet of space a gold medal and 1,000 dollars are offered as first prize, and in other Orchid classes the prizes are on a very big scale. The secretary is Mr. W. P. Rich.

"The Rose Annual for 1909."—Bigger and better than ever is the current number of "The Rose Annual" just to hand from the secretary of the National Rose Society. The dates of the exhibitions of the principal Rose societies affiliated with the National society are given, and many articles of considerable interest to rosarians are included. Among these the most delightful are those by the President, the Rev. F. Page-Roberts, who describes some of his experiences in Rose-growing; Mr. A. Dickson on hybridisation; Dr. A. H. Williams on wichuraiana hybrids; Mr. C. C. Williamson on the scentless and scented Rose; and the Editor's review of Roses and Rose-growing. Mr. G. Massee, V.M.H., deals in his usual lucid manner with Briar scab, and the publications committee deals with some of the newer Roses. In addition to the mass of interesting and instructive reading the book is splendidly illustrated. The price of this Annual is 1s., obtainable from the hon. secretary, Mr. E. Mawley, Rosebank, Berkhamsted, but notice is given that the price next year will be raised to 2s. 6d.

PRIZES FOR READERS. MAY.

THE BEST METHODS OF GATHERING, PACKING AND TRANSMITTING FLOWERS, FRUITS AND VEGETABLES FOR EXHIBITION.

A First Prize of FOUR GUINEAS,
A Second Prize of TWO GUINEAS,
A Third Prize of ONE GUINEA,
And a Fourth Prize of HALF-A-GUINEA
are offered for the best essays on the above subject.

We think that as exhibition time is now approaching essays on this subject should be of value, especially to those who intend to exhibit at THE GARDEN Show. Essayists should confine their efforts to the items set out above, and should bear in mind that exhibits may have to be sent without anyone in charge or may be accompanied by the exhibitor.

The notes (restricted to 1,500 words) must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, W.C." The essays must reach this office not later than Monday, May 31. Both amateur and professional gardeners may compete, but it is hoped that those who contribute regularly to the pages of THE GARDEN will not do so. The name and address of the competitor must be written upon the MS., and not upon a separate piece of paper. The Editor accepts no responsibility for and cannot undertake to return the MSS. of unsuccessful competitors. The Editor's decision is final.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Potato Midlothian Early.—It is very probable that Mr. E. Foxon, who refers to the above-named kidney on page 186, had Sir John Llewelyn sent him as Midlothian Early. Really the true variety is a selection from Duke of York, and is not easily recognisable. Were the two latter mixed no one could tell which was which. When first put into commerce Midlothian Early presented more vigorous features than Duke of York, but now they seem to be identical. The variety has quite yellow flesh, distinct and easily recognised form, and a somewhat netted skin. Those who like a soft-fleshed, flaky white kidney can hardly find a better first early and a heavier cropper than Sir John Llewelyn. Those preferring a yellow-fleshed tuber, having in it more body or substance and better flavour, cannot do better than grow Duke of York or Midlothian Early. Both crop heavily and make capital market varieties for early lifting.—GROWER.

Cotoneaster angustifolia.—There has been so much written about this beautiful Cotoneaster since its introduction a few years ago that a little further information regarding its fruiting in our climate is now desirable. No one can question the effect of a good plant of this fine shrub when wreathed with its bright berries; but, unfortunately, it is not proving so satisfactory in many places as was anticipated, and this is due to the sparseness of its flowers and the consequent want of berries, which constitute the great beauty of C. angustifolia. My own experience is that it is not a free fruiter, and I have found this corroborated from several parts of Great Britain, especially in the North. Of course, one has often seen finely fruited branches from nurseries in the South, but what one would like to know is whether this free fruiting shown by these branches is common in this country, and also whether the sunny or the shady parts of the garden are the best adapted for this Cotoneaster. A few notes from your correspondents who have cultivated it would probably be of service.—S. ARNOTT, *Dumfries.*

Berberis congestiflora hakeoides.—Several of the Berberises are well known as exceedingly beautiful and useful garden shrubs, and are extensively planted accordingly. The above plant, however, though very floriferous, is rare in gardens, and very few people possess good specimens. It differs in character from the other sorts, and bears no very close resemblance to any well-known species. The habit of the plant is rather loose, long stems being formed with a comparatively small number of side branches. Under good conditions it grows to a height of 5 feet or 6 feet. The leaves are 1 inch to 2 inches long, almost round in some cases, and sessile or nearly so. The flowers are deep orange, and are borne in dense round heads from the leaf-axils, the upper part of each shoot forming a long inflorescence. It was introduced by Messrs. Veitch in 1861, their collector, Mr. Pearce, having sent it home from Chili. It is a rather bad shrub to propagate, cuttings being difficult to root. It can, however, be grafted on stocks of B. vulgaris, and does fairly well in this way. For gardens where out-of-the-way shrubs are encouraged this will be found an interesting plant, while during the flowering period it is of an ornamental character.—W. D.

Rose Jersey Beauty.—On page 143 "A. P." recommends strongly this Rose. I know it is natural and proper that there is, and should be, a difference of opinion as to the best Roses; but I certainly fail to see any value in Jersey

Beauty beyond its rampant growth, which may be valuable where quick growth is required to hide an unsightly object. The blooms are too fleeting; by the time they are fully developed the petals begin to drop. The colour also is too faint to be decisive; far better plant Electra, which is most desirable in every way. Of Una I have nothing but praise.—E. M.

Roses for cutting.—"P.," on page 143, makes a good suggestion for those who require quantities of blooms for cutting and yet who appreciate a fine show in the garden at the same time. I know of several gardens where a plot in the kitchen garden is set apart for this purpose, and right well does the plan answer. I find varieties which, like Liberty, Richmond, Mrs. John Laing and Frau Karl Druschki, are of decisive colour are appreciated in bulk. Those who like Roses of that soft rose colour such as is found in Magna Charta, for instance, and which have a delicious perfume so unlike many of the modern-raised varieties, would do well to plant a batch, and instead of pruning them close down, as is the annual custom, allow them much more liberty in that respect; in fact, if not pruned at all there would be more flowers to cut, and this cutting is sufficient pruning. I have a number of plants which I treat in this way, and right well it answers, as anyone can test for themselves if they let the orthodox plan of annual pruning alone. I know that the craving for show blooms is much to blame for this annual close cropping of the trees in the spring.—E. M.

Hydrocyanic acid gas and mealy bug on Vines.—It would undoubtedly be of great use to Vine-growers could some really reliable experiments be put in hand at one or other of our large establishments, and the results published, with regard to the efficacy of hydrocyanic acid gas in exterminating mealy bug from Vines. I have never had experience of the gas, but having recently taken over a new charge, I have had plenty of experience of the pest in both the early and late vineries. I have closely peeled the rods and dressed them with paraffin emulsion, and then applied the old-fashioned remedy of soot, sulphur and clay mixed with paraffin emulsion. I noted Mr. G. Wythes's remarks in your issue of January 30, and also Mr. J. E. Simms's in the issue for February 20, and, in consequence, when overhauling the late Vines recently, I took particular notice of the various patches of mealy bug found. In many instances they were easily discernible in the crevices of the bark and around the spurs, but in a good many cases they were found under what was apparently tight bark, which required a fair amount of force to strip it off. Now the question arises, Will the fumes of hydrocyanic acid gas penetrate under such tight-fitting and well-protected haunts and destroy the colonies there found? If it will, another boon will have been conferred on many an unfortunate Vine-grower, for which he will be very grateful. Personally, I feel rather doubtful, unless the gas is many times more penetrating than any vaporising substance I have yet tried as a fumigant. Have we no other readers of THE GARDEN who can give us some light on this subject?—MIDLAND.

A National Vegetable Society.—As your correspondent "A Lover of Good Vegetables" says, Why not a National Vegetable Society? Surely there is plenty of scope for one. If a dozen or so societies, each devoted to one flower, can keep going, surely vegetables, the most important thing in the garden, should have a society devoted to them. The possibilities for doing good by an energetically-conducted society are endless. There could be trials of vegetables all over the country on different soils, which would be of great value, for one cannot expect the seedsman to publish the results of his trials. Also, I would suggest that there might be a really good book on vegetable-cooking published; it is badly needed. Of course, other societies would be amalgamated for a small fee. Surely there are sufficient gardeners really interested in vegetable culture to make such a society a success. Why! applications for membership would pour in. Now, who is bold enough to start it? The Temple Show will soon be here and hundreds of gardeners will be there, and what better chance of giving it a start than by calling a meeting at that date?—W. P. WOOD, *Oaklands Court, Kent.* [We hope our correspondent's suggestion will be taken up; THE GARDEN will support any movement that is made on business-like lines.—ED.]

Iron or wooden hoops from tubs. Can any reader inform me where iron or wooden hoops from old tubs can be procured?—(Mrs.) W. S.

Stephanotis floribunda in South Africa.—I enclose a photograph of a fine plant of Stephanotis floribunda; the plant is 21 feet high and 9 feet through. I was recently on a business visit to Mrs. Van der Byl, Mont Clair, Wynberg, and greatly admired this very fine specimen, and a few days later the lady sent

STEPHANOTIS FLORIBUNDA IN SOUTH AFRICA.

me the photograph. I post it on to you thinking it may be of interest.—CHAS. AYRES, *St. George's Street, Cape Town.*

THE AURICULA AND POLYANTHUS EXHIBITION.

WHETHER due to the lateness of the season, which has doubtless severely handicapped growers of Auriculas, or whether due to some declining interest in these hardy spring flowers, it is too certain that the show of the National Auricula Society (Southern Section), held in the Royal Horticultural Hall, Westminster, on the 20th ult., was the smallest we have yet seen. But judging by what is seen at the Royal Horticultural Society's meetings, as well as by personal experience, Auriculas have in the spring now very formidable competitors in other hardy flowers, and it can be no matter for surprise if Daffodils and Tulips especially, and many other hardy things which furnish such wealth of bloom and beauty, may find the majority of admirers. But if the Auricula, and especially the show or edged section, be not of striking effect, it has, as also have the more beautiful alpines, features that have great merits in the estimation of the true florist, and it is to that section of flower-lover we must look to to keep the cult of the Auricula in its ancient popularity.

In the premier class for shows, including edged and self flowers, Mr. James Douglas of Great Bookham was well first and Mr. Shipman of Altrincham second. But in the first-prize lot were ten selfs out of the twenty-four, and of these very telling were Favourite, Harrison Weir, Queen of Spain and Queen of Sheba. But, generally, the flowers showed the effects of too much warmth and had opened too prematurely. In the class for twelve plants only two collections were seen, thus showing how severely limited was the competition. Mr. Douglas's only competitor was Mr. W. Smith, an amateur, of Bishop's Stortford. Of edged flowers Lapwing, green; Conservative and Snowdrop, white; and George Lightbody and Beauty, grey edged, were the best. There were classes for single plants of the respective sections, Abbé Liszt being the best green edged, Stately the best grey edged, Acme of white edged, and Favourite, having a ground of violet blue, was the best of the selfs. A single dozen of those quaint coloured varieties classed as fancies were all in that section.

The more attractive and easily grown alpines kept the show from failure, as while those in their classes brought limited competitions, they were singularly beautiful and aroused warm interest. Composed of those having rich golden centres and of others having white or cream centres, all plants to be true alpines, quite devoid of farina or powder, there could be no question but that the gold centres with their borders of some deep rich hue attracted most notice. Mr. Douglas was an easy first in the class for twenty-four, as also in that for twelve plants, although here Messrs. Phillips and Taylor of Bracknell followed close on his heels. Such varieties as Purple Glow, Firefly, Argus, Phyllis, Rosy Morn, Mars, The Queen, Majestic and Her Grace were specially fine. In these classes a few seedlings attracted more than ordinary notice because of the size of the flowers and their striking colouring, although, perhaps, they would hardly have satisfied the old rigid Auricula florists, of whom few seem now to remain. But we should like to see from such varieties as these a new and distinct section formed out of alpines under the title of "decorative." They seem to have in them the qualities so badly needed in border Auriculas, and if the term "decorative" were made to include hardy border varieties, very much indeed might be done to create new interest in the Auricula, because if there is one who grows for exhibition, a hundred grow them for garden decoration. For that special purpose very beautiful were Admiration, blush mauve, flower large and borne on stiff, erect stems; Robert Bruce, white centre, ground maroon, laced with pale mauve; and Ulleswater, white centre, violet blue ground, shading off to mauve. Phyllis and Orion might well be added to this section.

Mr. F. W. Price of Beckenham showed six alpine seedlings, all having gold centres, of fine form and real beauty. That such charming varieties come from seed shows how possible it is for an amateur to raise delightful things for himself in that way. True, when grown under glass for exhibition, or even for personal enjoyment, the alpine Auricula is a glorious amateur's flower. Would that we had an outdoor race as attractive and as beautiful. What raiser will create it? Of gold-laced Polyanthuses there were none. These seem to be going fast to oblivion. As to the fine showy border section, not a plant in some collections merited notice. The plants from Mr. Mortimer of Farnham, Mr. J. Crook of Camberley, and some of those from Messrs. Storrie and Storrie of Scotland gave excellent flowers, showing colour, form and substance; but so many others had thin, pallid or rough-edged flowers that they added nothing to the show. We had better by far twenty years ago.

A. D.

TREES AND SHRUBS.

THE ALMONDS AND PEACHES.

AMONG ornamental flowering trees the various representatives of the Prunus family occupy a front place, a great many species being really first-rate decorative plants. The genus is divided into various groups, each of which has at a former period been awarded generic rank. Modern botanists, however, include the Almonds, Peaches, Cherries, Plums, Apricots, Bird Cherries and Laurels as distinct groups only of Prunus. In dealing with the various sections it is impossible to say that one is more useful than another, for each has its special value and each contains one or more species which could readily be placed among the first score of ornamental trees and shrubs.

The Almonds and Peaches have been known respectively as Amygdalus and Persica, names which are now applied to distinguish particular species. They are closely related and are included by scientists in the group Amygdalus. The types are well known by reason of their fruit, but it is from a distinctly decorative standpoint that their merits are now discussed. Their culture is of the simplest, and, when once established, they will grow for many years with little attention save an occasional thinning. They thrive in loamy soil and grow well in almost any part of the country from the North Midlands southwards. Further north they thrive in the most favourable districts, but it is not advisable to place them in very cold or exposed positions. Propagation is usually effected by budding the varieties of the common Almond and Peach on to stocks of the common Plum; some other members of the group are increased in the same way, while a few may be raised from cuttings and others from seeds.

The double-flowered forms of the Peach are excellent for forcing, and for this work they may either be grown in pots and pruned back annually after flowering, or they may be planted in an open border in May and lifted again in October. It is advisable to miss forcing the same plants every few years to enable them to recover strength, and in the event of plants becoming very weak, throw them away and commence with fresh stock. Plants growing in the open ground which are required to be kept dwarf may have the flowering shoots cut back to within two or three eyes of the base each year as soon as the flowers are over. Free-grown trees require but little thinning, and this ought not to be overdone; in fact, the less cutting away of large branches that can be done to any member of the Prunus family the better, for they dislike pruning, and show their resentment by gumming and the subsequent death of a portion if not of the whole tree.

In the neighbourhood of London there is no more popular flowering tree than the common Almond (Prunus amygdalus). It is met with in many suburban gardens, either as a low tree, 12 feet to 15 feet high, or, more rarely, as a fairly large tree, 40 feet in height, with a trunk of considerable dimensions. It rarely fails to bloom profusely, every branch being thickly clothed with pretty rose-coloured flowers. The type is the most common, but there are numerous very useful varieties. A few of the best are: Alba, with white flowers; dulcis (the Sweet Almond); macrocarpa, with very large flowers; and persicoides, a form which flowers ten days or a fortnight in advance of the type.

The Russian Almond might readily be said to be a miniature form of the common Almond. It is a native of Southern Russia and is known as Prunus nana. It grows but from 2½ feet to 4 feet in height, and forms an upright bush. The flowers are rose-coloured and are borne in profusion. It is an excellent subject for grouping in beds or masses. Several varieties are known, the most distinct being alba, with white flowers, and gessleriana, with richer coloured flowers than the type.

P. nana and its varieties are more difficult to propagate than many species. They may, however, be successfully dealt with by means of layers. P. davidiana is of recent introduction. The flowers are smaller than those of the Almond, but are borne in February. It is a native of China and forms a small tree with numerous slender branches. The flowers are pale rose. A form with white flowers, known as alba, is even better known than the type.

P. Persica (the Peach) is represented in gardens by several beautiful, double-flowered varieties, all of which form delightful subjects for almost any garden, large or small. Grouped in masses of a dozen or so together they present a charming feature, while isolated specimens, either standing on a lawn or used as dot plants in shrubberies, have much to commend them. The various varieties exhibit a wide range of colour from pure white to rich red.

For general effect the red-flowered forms are the best, but the pinks and whites are also handsome. The best double white is known as flore albo plena; good pinks or rose-coloured varieties are Clara Meyer and flore roseo pleno, while first-rate reds are magnifica and dianthiflora plena. An ornamental-leaved variety is met with. This has purple leaves and is known as foliis rubris.

Although the above-mentioned sorts are the best known examples in the group under notice, there are other useful species, of which the following are representatives: P. incana, a dwarf plant from Asia Minor; P. Jacquemontii, a shrubby species from Afghanistan; and P. Simonii, a small tree from China.

W. DALLIMORE.

THE RARE SAXIFRAGA STRIBNRYI. (*Natural size. See page 214.*)

THE GREENHOUSE.

THE SMALL GREENHOUSE FOR PLEASURE AND PROFIT.

(*Continued from page 166.*)

WHAT TO GROW.—Having said so much concerning the right sort of greenhouse, its general aspect and heating, we may now consider what crops to grow. In this connexion there is an intimate association between what to grow and the internal arrangement of the house. The house, for example, with open or available space beneath the stage is far in advance of the house with a solid earth stage. For instance, in the former case Mint, Endive, Mushrooms, Seakale, Rhubarb and other things may be dealt with at practically no cost. Fuchsias, Dahlias, Begonias, Gloxinias and the like may be stored in safety, and ever ready for inspection; hence the house with available space below the stage is far and away the best, because providing a maximum of room in a minimum of space superficially.

How to Construct the Stage.—The uprights or legs should be of 1 inch iron piping let into the floor in concrete, counter-sunk into a piece of quartering at the top and the quartering let into the wall to ensure rigidity. The iron pipe and wood form the letter L placed sideways, and is called a "knee." The central staging is similarly made with longer pieces of wood quartering, and rigidity may be secured by wood ties between or under the wood. By covering the entire stage supports with galvanised iron sheets, and finally ashes, to retain which a wood beading, 4 inches by three-quarters of an inch, is fixed around the edge, we have a perfectly simple stage, practically indestructible. In any case it is good for a score of years, and we will imagine such an arrangement exists. Such a house as this is adapted to grow many things—Tomatoes on the side stages in summer, with Fuchsias, Carnations, Begonias, &c., on the central stage. In addition, a Grape Vine may be planted at one end to train up the glass.

The Tomato.—Carter's Sunrise Tomato is one of the best to grow. To obtain good fruits early in the season, the seeds should be sown in January or early in February. As not a large number of plants will be required, it will be best to take one or two very shallow boxes, with holes bored in the bottom for drainage, and some fine and very sandy soil, pressed moderately firm and made level, for sowing the seeds. Place the seeds 1 inch apart each way, and so from the first secure a strong, sturdy growth. Thickly-sown seeds quickly ruin each other when grown into plants; therefore, sow the seeds thinly, as stated, and save time and the disappointment from failures. Sown thinly and covered very lightly with fine soil, the young plants may remain in the seed-boxes till about 3 inches high, when they should be potted singly into 3-inch pots. Where very early fruits are required, the plants may be grown and fruited in 9-inch pots, and in this way may occupy the side stages and the central stage also. Where a main crop of Tomatoes is desired, it is a good plan to place a 9-inch plank along the side stage and 12 inches from the wall, so as to form a trench or cavity, and fill the latter with garden soil for growing the plants, which, in this instance, should be trained up the roof-bars. The young plants should be planted out as soon as established in the small pots, and for some weeks later the remaining portion of the front stage could be occupied with bedding plants for the garden.

How to Plant a Vine.—The Black Hamburgh is a useful variety to start with, and what is known as a "fruiting" Vine should be purchased. In this instance a large bed must be prepared outside the wall of the greenhouse, using good loam, bone meal and a little old stable manure, the whole freely mixed together. In planting the Vine, it should be knocked out of its pot, the whole of the soil gently shaken away and the root-fibres carefully laid out thinly in open-fan shape in the prepared soil; then, by taking the rod, or stem, through a hole in the brick-work, the Vine may be trained to the roof-bars of the house. Planting may be done any time during February and March, the earlier the better. In a special Vine-house the border is best made inside; but a greenhouse does not usually admit of this. E. H. JENKINS.

(To be continued.)

STOPPING AND TIMING CHRYSANTHEMUMS.

[In answer to A. B. C.]

TREAT your plants as follows if you desire large and attractive blooms:

Name.	*When to Stop the Plants.*	*Which Buds to Retain.*
General Hutton ..	Second week in May	First crown
W. S. Vallis	Natural break.. ..	,,
Mrs. J. Thornycroft	Third week in May	,,
Mme. Carnot	Mid-April..	Second crown
Mrs. W. Mease ..	,, ...	,,
Nellie Pockett ..	At once	,,
Mrs. George Mileham	Natural break.. ..	First crown
Mrs. E. Hummel ..	At once	Second crown
Edith Tabor	Second week in May	First crown
Charles Shrimpton	Third week in May	,,
Godfrey's King .	At once	Second crown
Fairy Wonder ..	Natural break ..	First crown
Mrs. Barkley	At once	Second crown
Mme. G. Debrie ..	Mid-April..	,,
Mme. P. Radaelli ..	May 10	First crown
J. R. Upton	Second week in May	,,
Vicar of Leatherhead	Third week in May	,,
W. R. Church	Natural break.. ..	Second crown
Mr. T. Carrington..	Second week in May	First crown
The Grand Dragon ..	At once	Second crown
Scottish Chief.. ..	Second week in May	First crown
George Penford ..	Natural break.. ..	,,
Countess of Arran..	Third week in May	,,
Dorothy Pywell ..	End of April	,,
Queen Alexandra ..	Third week in May	,,
Mary A. Pockett ..	At once	Second crown
Mrs. J. C. Dunn ..	Third week in May	First crown
Lord Ludlow	Natural break.. ..	,,
H. Silsbury.. ..	,, ,, ...	Second crown
Mrs. E. Thirkell ..	,, ,, ...	,,
Colonel Weatheral	Second week in May	First crown
The King	Third week in May	,,
Hero of Omdurman	,, ,,	,,
Algernon Davis ..	Natural break.. ..	,,
Reginald Vallis ..	At once	Second crown
Mr. H. Tucker ..	Second week in May	First crown
Beatrice May	At once	Second crown
Mrs. A. T. Miller ..	,, ...	,,
Hon. Mrs. Ackland	,, ...	,,
Mrs. W. Knox.. ..	Natural break.. ..	,,
J. Duckham	At once	,,
Mme. Oberthur ..	May 10	First crown
W. H. Pearson.. .	Second week in May	,,
H. C. S. Jubilee ..	Third week in May	,,
Modesto	Second week in May	,,
Mme. Ferlat (inc.)..	,, ,,	,,

The other names are either decorative varieties are unknown to us.

THE ROSE GARDEN.

ROSE MARECHAL NIEL.

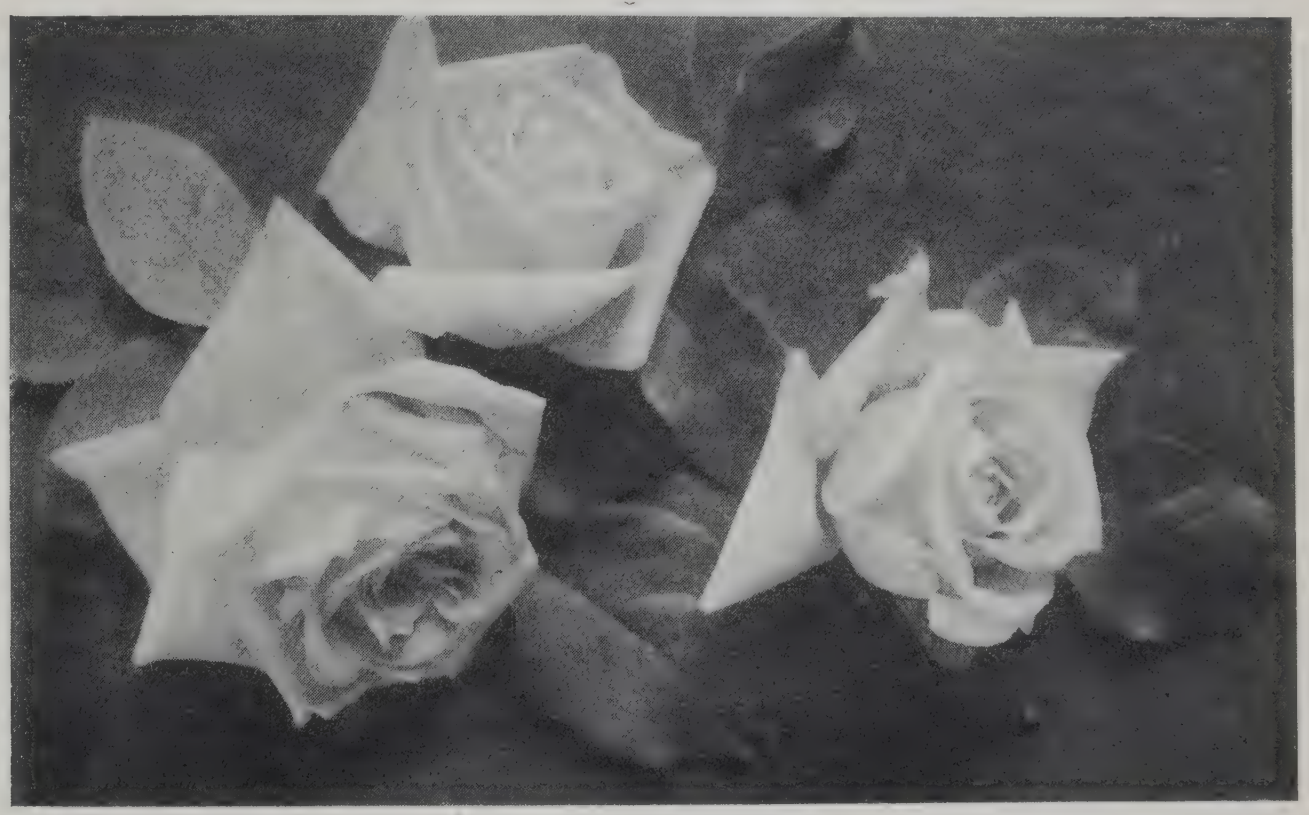
THE illustration depicts a spray of Maréchal Niel Roses cut from a tree probably more than half a century old in the gardens of Sir Walter Smythe, Bart., at Acton Burnell, and from which we cut hundreds of blooms annually. The tree is trained to the roof of a cool greenhouse and planted on the shady side of the house close to the slab pathway. The finest specimen of Maréchal Niel it has been my fortune to see was growing in some old vineries at Bell Hall, Washington, Durham; it was planted against the back wall of an old vinery, giving the impression that a slab of the pathway had been lifted to make room for the tree to be planted in the corner of the house. This tree was reputed to produce 2,000 marketable blooms each season, without the assistance of artificial heat. J. LAWLESS.

ROSE STOCKS AND THEIR USES.

THERE must be a large number of readers who would like to know something about the various stocks that are often mentioned in reference to Rose-growing. This question of stocks is no new subject. It has been written about probably as much as any detail connected with the culture of the Queen of Flowers. Some may say, Why use stocks at all? Why not raise Roses from cuttings? This, I grant, would be very commendable if it were possible. Perhaps it is possible, but so far no nurseryman has come forward with own-root Roses as a speciality. I am certain that by taking cuttings early in February from thoroughly healthy growths of forced Roses, own-root plants could be produced of every sort equal in size to grafted plants. One great hindrance to the development of such a business would be the matter of cost of production. It is well known that all the rambler and wichuraiana tribes may produce grand plants on their own roots in two years, and even in one year fine healthy little plants may be obtained. That these own-root ramblers far outstrip the budded plants is well known to a number of Rose-growers, and many could testify to the fact of certain varieties of Tea Roses making vastly superior plants to those that are budded.

But own-root plants are not my theme just now. What I propose to say a few words about are the various stocks employed in the great Rose-growing industry. Doubtless the Dog Rose (Rosa canina) is the most favoured stock, and it is essentially the stock for Tea Roses. There are three forms in which the Dog Rose is employed as a stock, namely, Briar cutting, seedling Briar and standard or short standard. The Briar cutting is the most popular as a dwarf stock with exhibitors, because it can be fed or manured more readily by reason of its roots spreading instead of striking downwards, as do those of the seedling Briar. Who invented the Briar cutting? I believe I am correct when I say it was the Rev. E. N. Pochin who first thought of using the Dog Briar in this form. It is a splendid stock when carefully made, and will produce grand plants and wonderful blooms. Amateurs should make a number of these cuttings in October from ripened growths gathered from the hedgerows. They are made in lengths of about 8 inches, and all eyes or buds are removed save two at the top. In planting the cutting it must be buried fully 6 inches or 7 inches in the soil. The rooted cuttings are transplanted in about eighteen months and budded the same summer.

The seedling Briar is, naturally, raised from seed. It is produced by the million, chiefly by the French and German nurserymen. It is the stock for Tea Roses, and while it has a tendency to go downwards, the severing of the tap root will usually induce a more branching root, especially if the soil is rather shallow. The deep-rooting tendency is a valuable trait where autumnal Roses are appreciated. Plants on the seedling Briar will be in bloom when those on the Briar cutting and Manetti stock are shedding their foliage. The seedling Briar was popularised by the late George Prince, although grown extensively before his day. The standard Briar is used for making tree Roses. These Briars are obtained from the hedgerows. They are becoming more scarce every year, and growers are turning their attention to other means of producing standard Roses, using, for instance, the Japanese or Rugosa Rose for the purpose; but it must be confessed they make very ugly, crooked stems. Standard, half-standard or quarter-standard Briars produce the finest Tea Rose blooms, and are the mainstay of exhibitors of this delightful group.



A SPRAY OF ROSE MARECHAL NIEL.

Very tall hedgerow Briars are used for the making of weeping Roses, and there is a great demand for such trees. It is said that the late Thomas Rivers first introduced the standard Rose. This famous nurseryman also introduced from Italy the Manetti stock, which is still valuable, although much decried by certain Rose-growers. Tea Roses will not grow upon it outdoors, but, strangely enough, our American friends are using it extensively for the Catherine Mermet tribe and other Tea Roses under glass instead of the own-root plants they formerly advocated. Undoubtedly, the exhibitor would miss the Manetti stock, for it gives him some of his grandest early blooms of the Hybrid Perpetual group. Certain Hybrid Teas do well on the Manetti, and the rambler and wichuraiana groups succeed better on this stock than on any other. These, then, are the chief Rose stocks employed to-day. Some recommend the Polyantha, De la Grifferaie, Laxa and Indica stocks, but the amateur will do well to content himself with those named. P.

THE FLOWER GARDEN.

WATER AND BOG PLANTS.

THE healthy stimulus given to the cultivation of water plants by the excellent displays yearly at the great horticultural exhibitions in London and elsewhere, while in themselves eminently instructive and suggestive, also indicate a sound advance in this branch of gardening. To amateurs there is often a real difficulty in availing themselves, in practice, of these water-loving treasures, even if only attempted in a small way, and for this reason I offer the following suggestions in the hope that they may benefit.

THE SITE of a water garden increases in natural effect if a low-lying position in the garden is selected, and if possible removed from such parts as are treated on geometrical or formal lines. A certain amount of excavation is advisable, as the soil so obtained can be used to give an undulating effect to the surroundings. However small the scale, the ground not contained in beds or under water will be covered by turf, as this form of approach is enjoyable throughout summer and autumn, the seasons when water plants are at their best.

THE POSITION is of great importance in small gardens where there are forest trees near at hand, as nothing attracts their roots more readily than water, so that where these exist the entire water-containing area is best formed of cement-concrete. The aspect need not be the sunniest, as the majority of moisture-loving plants succeed with a fair amount of shade; the part, however, devoted to Nymphæas should enjoy unbroken sunshine.

CONSTRUCTION.—The sides and bottom of all the water-containing area require facing with some material impervious to water; the best natural medium is clay, which requires to be thoroughly puddled together in one continuous mass and from 9 inches to 12 inches in thickness, according to the area treated. The best artificial medium is cement-concrete, which is generally put down in double layers. The first coat consists of gravel and cement (Portland), and when fairly set this is faced with sand and cement; 3 inches to 4 inches is generally sufficient in thickness unless the area treated is very great. Previous to employing either clay or concrete, the bottom and sides should be thoroughly rammed so that no after-shrinkage or subsidence may occur.

CROCUSES IN THE GRASS AT MARLOW.

THE DEPTH of the pond or tank may be varied to meet the requirements of the different occupants, 24 inches to 30 inches of water being necessary for the strongest-growing Nymphæas (Water Lilies), though it is possible to have quite a representative collection in water 18 inches in depth by omitting the most robust varieties; then in 12 inches of water Nymphæa pygmæa and Helvola will succeed, and in this depth nearly all the best of the hardy aquatics are readily accommodated. To increase the utility of a pond it is necessary to have shelves at irregular intervals along the margin, and these must be made when cementing is done and formed of the same material. The shelves will be slightly below the water-level—6 inches to 9 inches is sufficient—and be filled with soil raised 9 inches above the surface of the water. Plants readily find their way to the water by means of their roots, and such positions enable us to grow the whole range of bog plants under conditions which guarantee success. These shelves can be formed where they can give the greatest variety to the water margin, and if suitably planted they enable a gentle transition to take place from one part of the garden to another.

THE BEST SOIL is that from an old bog largely composed of peat, which may either be employed by itself or mixed with equal quantities of fibrous loam. The latter gives excellent results with free-growing plants when used alone; in any case exclude lime in any and every form, as it is almost futile to attempt to grow North American and Japanese bog plants in lime-impregnated water or soil.

PLANTING is best carried out from early April to the middle of May, as this enables the plants to be effective the first season, but Water Lilies may be planted as late as June. Water and bog plants are capable of excellent effect when planted in groups or masses; an extensive collection consisting of units would easily destroy or, at least, lack character in a well-planned garden, so that it is always advisable to restrict the varieties and increase the number of each; instances where single specimens are capable of good effect are tolerably frequent, and upon this basis I give below a short list of desirable plants for associating with water, grouped under two heads, namely, aquatics and bog plants.

AQUATICS.—Floating on surface of water: Aponogeton distachyon, white; Hottonia palustris, white, mauve; Myriophyllum proserpinacoides, Fern foliage; Villarsia nymphæoides, yellow; and Nymphæas in variety. Foliage and flowers boldly projecting: Alisma Plantago, rose lilac; Butomus umbellatus, crimson purple; Juncus zebrinus, banded green and yellow; Pontederia cordata, blue; Ranunculus Lingua grandiflora, yellow; Menyanthes trifoliata, white; and Sagittaria japonica plena, white.

BOG PLANTS.—To grow as single specimens: Gunnera manicata, Rheum palmatum tanguticum, Spiræa gigantea, S. rosea, Astilbe grande, A. Davidii, Saxifraga peltata, Rodgersia podophylla, R. pinnata, Senecio clivorum, S. wilsoniana; and Caladium esculentum (not hardy). To grow in groups: Astilbes in variety, Spiræas in variety, Sisyrinchium striatum, Lilium pardalinum, &c., Cypripedium spectabile, Epilobium album, Tradescantia in variety, Ranunculus aconitifolius plena, Helonias bullata, Mertensia virginica, Osmunda and Struthiopteris (Ferns), tall Lobelia, Michaelmas Daisies, Phloxes, Solidagos and Irises in variety. For carpet plants: Caltha palustris flore-plena, Trilliums, Dodecatheons, Mimulus (dwarf types), Primulas in variety, Funkias, Trollius (or as groups), Epimediums, Anemone rivularis and Gillenia trifoliata.

THOMAS SMITH.
Walmsgate Gardens, Louth.

CROCUSES IN THE GRASS AT MARLOW.

THE accompanying illustration is from a photograph of Crocuses growing in the grass in the gardens at Whittington, Marlow, the seat of Sir Hudson Ewbank Kearley. The corms were planted several years ago, and since then have been left undisturbed. Unfortunately the majority of the flowers were closed when the photograph was taken; but they still serve to show the good effect obtained by planting the corms in this way.

SAXIFRAGA STRIBNRYI.

THIS exceedingly rare plant was exhibited by Mr. R. Farrer of Clapham, Lancaster, at a recent meeting of the Royal Horticultural Society, when it attracted a good deal of attention from the alpine specialists present. The plant has the same closely imbricated rosettes of

greyish leaves as seen in S. Griesbachii, and, indeed, the two inhabit the same region in the wild state. Much of the habit of growth and flowering may be seen in the illustration on page 212, and the more decidedly forked inflorescence and drooping character at once render it distinct from the better-known plant. The flowers are of a reddish hue, the glandular pubescent stems being of a similar colour-tone, a fact which renders the plant at once attractive and distinct. The greyish leaves have a few intra-marginal white dots, and from quite an early date the plant is one of exceeding interest. Choice associates for this rare gem are the equally rare S. Frederici-Augusti vera and the scarce and very fascinating S. Griesbachii, and the trio possess certain characters in common. E. H. Jenkins.

THE FRUIT GARDEN.

THE CULTURE OF FIGS IN POTS.

To the notice of those who cannot spare a bed and the wall of a glass house for the cultivation of the Fig, I would like to bring the ease of culture and good results to be obtained by growing two or three strong trees in pots. At the outset it would be well to advise care in the choice of sorts for this method of culture, as every variety we are acquainted with is not suitable for the purpose. Brown Turkey is probably the best Fig in cultivation for general purposes and does well in pots, bearing abundantly; therefore it takes the premier place. Brown Ischia is not quite so large as the preceding variety, but the flavour is very rich and it bears well under pot culture. The same remarks apply to Black Ischia as to the brown variety, the only difference being in the colour of the fruit; Black Ischia is of a deep purple with deep red flesh, while Brown Ischia is of a light brown hue.

By growing the trees in pots the roots get the restriction so beneficial to prolific fruit bearing. A compost of good fibrous loam, to which has been added a fairly stiff portion of old mortar rubble, along with a little well-rotted manure and some half-inch bones, makes an ideal medium for future growth. When the trees have been potted up prior to starting them into growth, they may be taken into a vinery that has just been started, and the conditions there will be quite to the liking of the Figs and growth will immediately begin. As the new shoots attain length they should be systematically stopped at the fifth or sixth leaf, as this helps to keep the trees bushy and of good shape, and the labour of pruning is greatly minimised at the end of the year. Frequent waterings with liquid manure may be given, and a little artificial manure stirred into the soil occasionally during growth tends to maintain the health and vigour of the trees.

When these have attained the maximum size desired and it is not convenient to increase the size of pot, collars of zinc, 6 inches wide, may be placed round the inside of the pot rim and filled with a rich compost, into which new roots will be pushed from the stem of the tree, thus enabling the crop of fruit to attain its proper size without unduly taxing the resources of the tree. After the last of the fruits are gathered the trees must be given a thorough rest, giving them the benefit of plenty of sun and fresh air (such as may be found obtaining in an early vinery at rest), and withholding water at the roots, so that all the wood may become thoroughly ripened and hard. Fig trees are very liable to red spider, but this can be kept down by frequent syringings or sponging of the foliage. I find that I have made no mention of drainage, which must be good; although the Fig tree requires abundant supplies of water during growth, it must have ample facilities for disposing of surplus moisture, which, if allowed to remain long in the soil, would cause it to turn sour and then act as poison on the roots of the trees. If strict attention is given to the details already enumerated, any amateur need not hesitate to undertake the culture of Figs in pots. Thoroughness must be the grower's motto, and with this ever before him success is practically assured. Midland.

FRUIT NOTES.

American Blight.—This name has become so widely used that one scarcely ever thinks of giving the pest its more correct appellation of woolly aphis. No matter, however, by what name it may be known, it is one of the worst pests that appear in our fruit gardens, and no one should ever spare his efforts to eradicate it. This will not be found an easy matter, for the aphis will establish itself most comfortably on the roots of trees to pass the winter, and it will not emerge until the warm days of spring, so that the ordinary winter washings with caustic soda, good as they undoubtedly are, will never suffice to ensure a complete riddance unless the precaution has been taken of baring and dressing the roots also. During the summer, however, we cannot consider any root washing, and must confine ourselves to the branches, which are often so badly infested in neglected trees that the pest looks like patches of snow. The popular, cheap and easily compounded soft soap, quassia, paraffin and water solution is excellent for this as well as other enemies of the fruit-grower, but in those parts of the tree which are accessible to an operator with a small brush and a bottle of sweet oil, with which to anoint the bodies of the insects, this is the great remedy, for all that have been painted will certainly be destroyed. The operation is tedious, but few people object to that provided they know that the steps they are taking are sure to be efficacious. Methylated spirit is used in the same manner and is equally reliable, but there is a possibility of injury to the young bark and tender shoots which never arises when the oil is relied upon.

Preparing a Paraffin Solution.—As the solution referred to above is commonly employed both in vegetable and fruit gardens, it may be well to give instructions for its preparation. First boil 4oz. of quassia in a little water; next take 4oz. of soft soap and boil it; then put the two together in one large pan with a gallon or rather more of water and place it on the fire; bring it to the furious boil, and while it is still boiling, but *with the pan off the fire*, vigorously stir in a wineglassful of paraffin. If the stuff is boiling hard at the time and the stirring in is done thoroughly there will come about a perfect amalgamation of the oil with the water, and the result will be a safe and extremely useful insecticide. Application should be made through a sprayer throwing the finest possible film of solution, as this is far more efficacious and more economical than drenchings that run down the whole tree. Of course, there are several specially prepared washes which are excellent against this pest, and particulars of the most reliable of them will be found in our advertisement columns.

Caterpillars on Gooseberries.—In some districts the caterpillars, which attack and practically defoliate the Gooseberry bushes, appear every year, and growers should make strenuous efforts to exterminate them. The most popular dressing is a mixture of soot and lime thrown into the plants while they are damp after rain or with dew; but the work is by no means pleasant to do and is not invariably effectual. There is really nothing to excel White Hellebore powder for this pest. It should be distributed into all parts of the plants through a bellows machine or a powder distributor, and must reach the under as well as the upper surfaces of the leaves. The great objection to it is that it is a dangerous poison, but in the hands of a careful person it is not easy to see how any harm can follow upon its use, and the benefits it brings cannot be questioned.

Watering.—Trees trained to walls will be immensely benefited by heavy soakings with clear water and by subsequent applications of weak liquid manure at this season of the year. It is extremely seldom that the soil at the foot of walls is as moist as it ought to be in the interests of the progress of the trees, and to keep everything as it should be soakings are imperative. As soon as possible after an application, the surface soil should be hoed lightly over and have a mulching of short manure to keep in the moisture and the food. Fruit-grower.

A WATER SCENE IN A LINCOLNSHIRE GARDEN.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Sow more hardy and half-hardy annuals where space is available, as these will follow the earlier sowings and so keep up a succession of flowers. The so-called Nasturtium or Indian Cress is best sown now, as by the time the seedlings appear all danger of frost will be past. The climbing varieties are excellent for trailing over trellis-work, wire-netting or stout Pea-sticks, and quickly form a pleasant screen. If flowers are desired, the soil should not be very rich for these plants. Seeds can either be obtained in mixture or in separate colours. The Tom Thumb or dwarf varieties are well adapted for growing in tubs, and will thrive in almost any situation. The thinning of annuals must be attended to early or the plants will become drawn and weakened, a check that no after-treatment can rectify. Asters and Stocks may be sown in the open now with every prospect of success. The seeds must be scattered thinly and watered frequently should the weather subsequently prove dry.

Vegetable Garden.—The first week in May is a very good time to sow Beetroot, as the plants quickly appear and grow away without a check, which is very important if first-class roots are desired. The Turnip-rooted varieties generally become ready for use before the long-rooted sorts, and, consequently, some of each should be grown. Select a bed that was well manured for a crop last year and sow the seeds in rows from 12 inches to 15 inches apart and 1 inch deep; if placed lower the seedlings frequently fail to appear. Savoys and Kale to provide winter greens should also be sown now. Some growers sow earlier, but the plants then become very large by the time winter sets in and cannot stand severe weather so well as the smaller and sturdier specimens. The same remarks apply to both sections of spring Broccoli. French Beans and Scarlet Runners should be sown now; the former should go in rows 15 inches apart and the plants 10 inches to 1 foot asunder. For Scarlet Runners take out a shallow trench about 10 inches wide and sow the seeds 2 inches deep in the bottom of this; the trench will greatly facilitate watering during dry weather. When Bean plants appear slugs are certain to do likewise, and they must be checked by dusting the seedlings when damp with finely sifted coal-ashes. Celery trenches should be prepared now in readiness for the plants, so that the manure incorporated has time to become settled and mellowed before planting-out time. Make the trenches 15 inches wide and 10 inches deep; then place a 3-inch thick layer of good, partially rotted manure in the bottom and dig it in well, placing about 2 inches of the good soil removed over all. This will leave the trench about 5 inches deep, which is sufficient for all ordinary purposes. Where it is desired to grow Cucumbers in the open, dig out a trench 1 foot deep and 18 inches wide and nearly fill this with stable manure, replacing the soil taken out in the first instance. Tread the whole down moderately firm. If plants cannot be raised under glass, seeds may be sown in these beds at once, placing them 2 inches deep, but first of all damping them and then coating with red lead, as mice are very fond of them. A Ridge variety must be chosen for outdoor culture.

Fruit Garden.—The principal work in this department at present will consist of keeping the soil frequently hoed to prevent weeds growing. Should the weather prove very dry and warm, newly planted trees or bushes will derive great benefit from light overhead syringings twice daily. Do not mulch over the roots of trees until the soil has become thoroughly warmed.

Greenhouse and Frames.—Growth of nearly all kinds will now be very active under glass, and most plants will require abundant supplies of water. Prick all seedlings off as they become large enough and ventilate freely so as to induce a sturdy growth in all kinds of plants. Climbers on the roof must have attention as regards training and thinning, otherwise they will quickly become a mass of tangled, unmanageable shoots. Shading, too, must have close attention, but there is usually a tendency among amateurs to over rather than under shade; with judicious ventilation many plants will stand, and be benefited by, more sunshine than is generally supposed. All root plants will now be growing freely and will need more water. Keep the foliage clean and stand the plants outside during warm showers, taking care that they do not get blown over and thus damaged. H.

1.—PLANT OF POT MARJORAM SUITABLE FOR INCREASING BY DIVISION.

TWO USEFUL HERBS.

INCREASING MARJORAM AND WINTER SAVORY. HERBS are not regarded with so much favour at the present period as they were many years ago. There was a time when most housewives knew the value of most of the more popular herbs and the uses to which they could be put, and it was then the rule to allot a certain quarter of the garden to them, easy of access to the kitchen, where the demands of the house might be the more easily met.

We propose, in the first instance, to deal with the pot Marjoram, which is known to the botanists as Origanum Onites. This is the Marjoram that is more generally grown in our gardens, and is said to be a native of Sicily. The plant is a well-known hardy perennial. There are many uses to which pot Marjoram may be put; but the young shoots and leaves are more generally utilised for flavouring and seasoning purposes. It is nothing short of a misfortune that the many uses of this and other herbs are so little understood by the present race of cooks and others who are responsible for making us appetising and attractive dishes. The young shoots should be gathered as required; then there is no waste.

To grow this perennial Marjoram satisfactorily it is well to take rather more than ordinary care in the preparation of soil of a suitable nature. Any really good soil will answer the purpose admirably, and this should be well stirred and broken up preparatory to the planting. The pot Marjoram should be planted in a sunny position if it is to do well. The plant may be propagated

2.—DIVIDED PORTIONS OF THE PLANT SHOWN IN FIG. 1.

in two ways: First, by seeds sown outdoors in April in shallow drills 8 inches to 10 inches apart. A more simple method of propagating this subject is to purchase a few roots (old plants) in the spring, and deal with them in the manner shown in the accompanying illustrations. A reference to Fig. 1 will reveal the character of plants that may be purchased at the present period. Note the numerous young shoots in the tuft therein presented, and also the plentiful supply of roots that are emitted at the base of each shoot.

The divided pieces of the pot Marjoram may be many and varied, and two or three old plants will provide an abundant supply of suitable material. The pieces represented in Fig. 2 are just typical of the rest. The larger piece and others of a similar character may be planted out in prepared soil, 1 foot apart each way. Plant firmly, well pressing the soil round the roots. The smaller pieces may be planted in quarters to themselves; 2 inches or 3 inches should be allowed between the pieces of medium size, and for those of the smallest kind, 1 inch or 2 inches

3.—A PLANT OF WINTER SAVORY READY FOR DIVISION.

apart will suffice. These latter pieces may be dibbled in in boxes, using those 4 inches to 6 inches deep, and when well established and growing away freely, they too should be planted in permanent quarters. Note the numerous roots on each divided piece; there should be no failures to record with such material.

The second herb to which we wish to call attention is the oft-requested Winter Savory, a hardy perennial plant, known to the botanists by the name of Satureia montana. It is used for many culinary purposes, and is in special request by those who know its real value for flavouring soups. Like the Marjoram already dealt with, the Winter Savory may be raised from seeds sown in the spring, and those who have the time and convenience and can wait for the plants to mature, this is a cheap and ready means of rearing a large number of plants. The seeds should germinate in from seven to fourteen days, and the resulting crop of plants will take a year to mature.

I prefer, however, to lift old plants and divide these wherewith to increase our supply of this useful subject. This is cheap enough, and a few old plants will provide a goodly number of suitable pieces with which to perpetuate the stock. Old plants in an excellent state for division may be purchased for a few pence each in the spring.

Fig. 3 represents the kind of plant that may be lifted for the purpose of dividing. It is a sturdy little specimen, and if the thumbs and fingers be pressed well down into the base of the plant, the rooted pieces will separate with the greatest readiness.

The three divided pieces as represented in Fig. 4 show the character of these rooted pieces. There is one fine sturdy branching piece, representing others of a similar kind, that should be planted in rows in a sunny part of the garden, observing a distance of about 10 inches between the rows and the same distance between the plants in the rows. Dibble in the other smaller-rooted pieces either in prepared quarters where the soil is well broken up and raked over or in fairly deep boxes, where they will quickly establish themselves and go ahead at once. Observe a distance of 2 inches or 3 inches between these smaller pieces and press the soil firmly at the base of each piece. Winter Savory prefers a fairly rich soil that is not too heavy. The soil should be well broken up previous to planting. D. B. C.

YELLOW-FLESHED POTATOES.

There are many Potato connoisseurs who believe that the best flavour found in the popular tuber when cooked is in the varieties having more or less yellow flesh. Without doubt the famous Ashleaf Kidney owes some of its admirable nutty flavour to that colour of flesh, and those who can remember that once-popular and very high-flavoured variety Paterson's Victoria can also remember that its floury flesh was heavily tinted yellow. But of late years raisers of new varieties seem to have concentrated their efforts on producing very white-fleshed ones, and that hue is the primary colour running through the Up-to-Date strain; flesh soft, white, flaky, but lacking taste. Having had requests from customers for tubers of diverse flesh and flavour, Messrs. Sutton and Sons of Reading obtained stocks of several varieties quite distinct from those generally in commerce, and grew them largely last season to test their cropping powers, table quality and flavour when cooked. I saw crops of some of these in North Hants last autumn when lifted, and found them to be excellent producers. All are of the medium or main crop section and are capital keepers. Beyond that experience I have recently had an opportunity to have five varieties cooked at home, and thus with members of my family taste them. Generally I found them to be excellent, and especially so were the white-skinned Golden Nugget and Golden Perfection. The former had the deepest yellow flesh of the batch. It was firm, very clear, easy to masticate, yet furnishing remarkably satisfying food. It also had the highest flavour. Golden Perfection had firm, starchy and almost floury flesh, partially white in colour, marked flavour and was most pleasant eating. A third white-skinned variety was Golden Ball. This, too, had good yellow flesh, was very firm, and also exceedingly satisfying. Those who like a close-fleshed yet dry-eating Potato will find this much to their liking. The very filling or satisfying quality of these tubers serves to show that, where such are grown for general food, as is the case in some districts, they form much more complete and nourishing diet than is the case with mere white-fleshed, flaky varieties. Golden Star has purple skin, and is of rather firmer texture and yellower in flesh than some others. Crimson Beauty has red skin with medium yellow flesh. A. D.

THE TOWN GARDEN.

The Back Garden.—Usually the back garden is the chief area surrounding, or connected with, the dwelling-house, and in this space all gardening work must be done. In most cases the general arrangements, including domestic offices, are not attractive, and so the whole is made more beautiful by putting in plants and raising a number of them from seeds. Thus we see the importance and value of border and climbing plants for this purpose. During recent years there have been erected in crowded parts of towns—that is, in districts where space is very valuable and is, consequently, allotted to each dwelling-house accordingly—hundreds of houses with really artistic back quarters. Conservatories and greenhouses, where there was sufficient space for them, and open, glass-covered verandahs in restricted positions, have been built. In these structures there is room for pot plants and climbers, as well as borders adjoining them, and which are suitable for spring and summer flowering subjects. Hanging baskets, vases and tubs, as well as window-sill boxes, may be used in these circumstances with great effect. Some of the most suitable plants for the purpose are to be found among half-hardy and hardy annuals. Tropæolums, single-flowered Petunias, white and yellow Marguerites, Zonal Pelargoniums, blue Lobelia, Alyssum, sweet-scented Geraniums, Mimuluses, Fuchsias, Gazanias, with their lovely orange yellow flowers, and sweet-scented Verbenas are all good kinds of plants and must be duly prepared. Simple arrangements, both in the baskets, tubs and boxes, are the most effective.

The Soil.—The cultivator must not be tempted to use ordinary garden soil for the filling of the boxes and baskets. Fibrous turfy loam, leaf-soil and some well-rotted manure must be given the preference. The turfy loam must have been cut just long enough to allow of the grass dying in the turves, else the grass will grow through the sides of the baskets and among the flowers generally. All necessary soil mixtures ought to be kept in a dry, cool place.

Transplanting Seedlings.—One good strong bushy plant is of more value for planting out in the flower borders than three weakly ones. To obtain the bushy specimens the cultivator must duly transplant the seedlings; and all amateur gardeners will now possess a few, or many, boxes of seedlings of half-hardy annuals. Do not lift the seedlings singly by forcibly pulling them out of the soil, but gently raise a number of them at once with the aid of a plant label. It is in this way that the tiny but valuable roots are preserved. Then it is equally necessary to exercise care in the work of transplanting. Make the holes large enough in the nice light soil to prevent undue crushing, when the roots will quickly permeate the new soil and become established in it. As a rule it is necessary to transplant the seedlings a second time before they are finally planted in the flower-beds. At this, the first transplanting, all small-leaved plants, such as those of Asters, must be put in about 1½ inches apart, and large-leaved ones, such as those of the Castor Oil Plant, 3 inches apart.

Shading and Watering.—Directly the seedlings are transplanted, place the boxes containing them in a cool frame and nearly close the glass lights for a time; but if the sun shines brightly put on a light shading, scrim or tiffany or any kind of open sacking material will do. More air must be admitted at the end of four days, and gradually the plants must be thoroughly hardened. Avon.

1.—DIVIDED PIECES OF THE PLANT SHOWN IN FIG. 3.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Flower Garden.

ROSES.—These will now be growing away freely, and the fine, bright weather will hasten the growth of those which may to some extent have been injured by the past severe weather. Keep the beds free from weeds, and should late-planted plants require water, attend to this at once. Keep a sharp look-out for maggot and aphis, as the plants will need close attention to keep them free from these pests; if neglected, these will quickly cripple the most promising buds and shoots. Aphis is quickly checked by syringing carefully with quassia extract or Tobacco water some time during the afternoon; but in dealing with the maggot, which is more difficult, the surest plan is to give the curled leaves a gentle squeeze with the finger and thumb, after which syringe with the above-mentioned insecticides.

Flower Borders.—These should now be very bright with spring flowers. If grouped in different shades of colour, any alterations to be made for another year ought to be noted before the flowering is past. Keep the soil gently stirred among the plants, but be careful not to injure any young growths of other plants which may not have come through the soil.

Bulbs.—Where a great number of bulbs are forced annually, and where there are shrubberies or a wild garden attached to the place, the bulbs may be planted therein at once.

Hardy Fruit Garden.

Apricots.—Where these grow and thrive satisfactorily and a reasonable amount of wall space is devoted to their culture, trees protected by glass coping or blinds will now be growing apace and should have the foreright and ill-placed shoots removed by an experienced hand. The aim should be to encourage plenty of spurs and young wood at intervals, and, if branches show signs of failing, others to take their place ought to be retained. Thin the fruits early if set in clusters, leaving those best situated and likely to make the best specimens. Water freely if the soil is found to be dry. Keep the hoe freely plied among all fruit bushes when the soil is dry, so that the weeds may quickly shrivel up, taking care not to damage the young growths and fruit-buds.

Grafts.—Examine all newly grafted trees, and should the clay employed have cracked, smear with fresh, it being of the utmost importance to keep the grafts air-tight. There is still time to graft so long as the scions are not too advanced. A good covering of moss over the clay, and this kept moistened, will greatly assist the union in bright weather.

Vegetable Garden.

Runner Beans.—A sowing of these may now be made in warm situations. The land needs to be heavily manured and deeply worked for this crop. The varieties are numerous, and the pods of some are large and abundantly produced.

Dwarf French Beans.—These may now be sown at intervals. For an early crop, Ne Plus Ultra is very suitable, and Canadian Wonder is a good one no follow. Select a warm place for the early sowings and a good open position for the main supplies. A sowing, too, of the Waxpod Mont d'Or should be made, as this is a Bean which should be more extensively grown.

Sow Kales, Broccoli and Savoys for later planting. Do not omit Sutton's Hardy Sprouting Kale, one of the very best for severe winters.

H. Markham.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

Plants under Glass.

Forced Plants.—As these lose their attractiveness it is often difficult at this season to find adequate accommodation for them under glass. On no account should they be placed outside and exposed to cold winds, morning frosts or, on the other hand, bright sunshine until the growth gets hardened and the foliage assumes its natural colour. Bulbs of the hardier species are easily dealt with, as a covering of leaves, litter or evergreen branches at critical times renders these immune from injury. Rhododendrons, Lilacs, Deutzias and other semi-hardy plants that, since being forced, have spent a week or two in a cool house may be transferred from there to pits or even an improvised shelter of some kind in a cosy nook. Most kinds of bulbs, if carefully hardened off so that the foliage dies naturally, are of value for planting in the open; but should the entire foliage have been cut with the flowers, as is often convenient to do in the case of Tulips, the bulbs may be consigned to the rubbish-heap at once.

Calanthe Veitchii.—This is the most popular, and withal the most easily grown, of this useful winter-flowering genus. Plants that have been kept dry for some time will shortly show signs of growth, when repotting should be done. Shake all the old material from the bulbs and discard the more effete of these unless increase of stock is imperative. A potting mixture of turfy loam, peat and sphagnum, to which a little dried cow-manure is added, answers well. Charcoal, crocks and sand may be used at the discretion of the cultivator, or even leaf-mould may be substituted for peat. Pots well drained are necessary, but less in this respect than in the case of Orchids in general. Place one or more bulbs in each pot at sufficient depth to secure firmness, and slight sprinklings with the syringe will suffice until the foliage is developed. The temperature of the ordinary plant stove is suitable.

Poinsettias.—As cuttings are produced upon the stock plants, propagation may be proceeded with. Secure each cutting with a portion of the old wood attached if possible, and insert around the sides of small pots in friable compost and plunge in a brisk heat.

Pits and Frames.

Violets are flowering later than usual, and to preserve the colour and scent of the blooms a slight shade applied during the brightest part of the day is beneficial. Planting out must shortly be done; whether runners or divisions of the old plants are used is immaterial, providing health and vigour are present. It is obvious that the double sorts are better adapted for division than the single kinds, which are more disposed to produce runners, many of which will now have emitted roots and become established around the parent plants. For the summer quarters a dry, hot site should be avoided, as on such red spider is almost sure to attack the plants. Apart from this, the necessity for shade so frequently recommended is of little consequence in Northern gardens, a fully exposed plot being good.

Hardy Fruit Department.

Fungoid Diseases.—Apples and Pears, both foliage and fruit, are apt to be attacked by a fungus, which is destructive to the former and a great disfigurement to the latter. As a preventive of this, Bordeaux mixture should be sprayed upon the trees at least once before the flowers open and several times after the fruit is set, according to the virulence of the attack, using a more diluted liquid as time goes on. To make this, dissolve 4lb. of sulphate of copper and the same amount of fresh lime in separate vessels; afterwards add together, also forty gallons of water and agitate for a few minutes, when it will be ready for use. James Day.
(Gardener to the Earl of Galloway.)
Galloway House, Garlieston, Wigtownshire.

NEW PLANTS.

Odontoglossum Theodora.—This is a very distinct-looking flower, and is the result of a cross between Rossii rubescens and triumphans. The sepals and petals are of medium size, the dull sulphur ground colour being freely and beautifully marked with reddish brown blotches. The labellum is comparatively large and creamy white, faintly tinted pink in colour, with a reddish brown blotch and a small yellow one at the base. The column is conspicuous, and in colour a mixture of carmine, reddish brown and cream. Shown by de B. Crawshay, Esq., Rosefield, Sevenoaks. First-class certificate.

Cattleya Robert de Wavrin.—This is a large flower of delicate colouring that is most difficult to describe. The narrow sepals and broad petals are of a delicate old rose tint, the large labellum being of the same hue at the lower end, but rich carmine at the lip, with dull scarlet and rich yellow markings extending into the throat. Shown by Lieutenant-Colonel Holford, C.I.E., C.V.O., Westonbirt, Tetbury, Gloucestershire. Award of merit.

Odontoglossum loochristiense aureo-fulvum.—A very handsome, bold variety of a beautiful Orchid, and fully deserved the award granted. The flowers are of splendid shape and size, the sepals and petals being a very rich yellow, with irregular reddish brown patches placed thereon. The margins of the petals are also somewhat toothed. The medium-sized labellum has a margin of creamy white, the ground colour of the remainder being pale canary colour, marked with reddish brown blotches. Shown by Sir Trevor Lawrence, Bart., K.C.V.O., Burford, Dorking. Award of merit.

Lælio-Cattleya Goldcrest.—This is a pure, very rich golden yellow self, the flowers, when clustered together as they were in the specimen shown, being of a very attractive character. They are of medium size, and are borne in a rather densely arranged raceme on a long, stout stem. Shown by Lieutenant-Colonel Holford, C.I.E., C.V.O. Award of merit.

Epilælia Lionetii.—A fine bigeneric hybrid obtained by crossing Epidendrum macrochilum rosea with Lælia purpurata. The sepals and petals are narrow and of a dull purple colour, the labellum being comparatively large and of a rich purple hue, this shading off to a much lighter colour towards the edges. Shown by Messrs. Charlesworth and Co., Hayward's Heath, Sussex. Award of merit.

Miltonia bleuana Sander's variety.—Here we have a large-flowered and vigorous form of a well-known Orchid. The labellum is exceedingly large and pure white, with a brownish crimson blotch at the base. The petals have the usual faint lilac markings, both these and the sepals being larger than those of the type. Shown by Messrs. Sander and Sons, St. Albans. Award of merit.

Primula Forrestii.—A very showy species from Yunnan, where the plant was collected on limestone cliffs at an altitude of 9,000 feet to 11,000 feet. The fragrant flowers are of a rich golden yellow colour, produced in a clustered umbel on stems about 8 inches or 9 inches in height. The oblong acuminate leaves are some 4 inches in length and nearly 2 inches wide, supported by a strong petiole some 5 inches in length. From so great an altitude the plant should be perfectly hardy in British gardens, and has indeed already proved quite hardy in Cheshire. The general appearance of the blossoms is that of a pronounced or glorified Oxlip, but the leafage and strong fragrance of the flowers are very marked. Shown by Bees, Limited, Mill Street, Liverpool. First-class certificate.

Bougainvillea Rosa Catalina.—This remarkable and handsome novelty was received from Las Palmas, Grand Canary, and differs from all other known forms by the rich rose pink colour of the flowers. The plant is very profuse flowering, and in other respects is not unlike the

other members of its race. The colour should be very good for decoration, as it is of that warm shade of pink that lights up so well. Shown by Major Petre, Westwick, Norwich. First-class certificate.

Saxifraga decipiens hybrida grandiflora.—A bright red-flowered variety of a well-known mossy Saxifrage, the habit of the plant being not unlike the free-growing S. cæspitosa. The large flowers are of a crimson shade, the stems and buds being of similar colour. It is the largest of the coloured Saxifrages we have seen. Shown by Mr. Kitley, Bath. Award of merit.

Hippeastrum Pinkie.—This is one of the finest varieties we have seen and is perfect in form. The ground colour is white, reticulated with pink, and there is a well-defined midrib of pure white. Shown by Lieutenant-Colonel Holford, Westonbirt, Gloucestershire. Award of merit.

Hippeastrum Gracchus.—A flower of fine form and of the most intense crimson shade throughout. Probably the richest-flowered variety yet seen. Shown by Messrs. James Veitch and Sons, Limited, Chelsea. Award of merit.

The following alpine Auriculas were shown by Mr. J. Douglas, Great Bookham, and each received an award of merit: Robert Bruce, reddish purple, shading to lilac; Claude Halcro, maroon, shaded reddish bronze; Admiration, purple, shading to violet; and Ulleswater, deep purple and maroon, with lighter edge. These were all highly meritorious varieties.

Carnation Lady Coventry.—A giant red-flowered Malmaison, the blooms being of great depth, size, and richly coloured and perfumed. Shown by Messrs. W. Cutbush and Sons, Highgate. Award of merit.

Narcissus Queen of the West.—A giant Ajax Daffodil of pure lemon yellow tone, the huge trumpet or crown being of a somewhat deeper shade of yellow. The plant is of remarkable vigour and of great stature, and is likely to become a standard variety for market purposes. It has already this year given proof of its value as a forcing variety, and has been greatly admired. A handsome and refined Daffodil of much excellence. Shown by Messrs. Walter T. Ware, Limited, Bath. First-class certificate.

All the foregoing were shown before the Royal Horticultural Society on the 20th ult., when the awards were made.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London, W.C.

Novelties from Cumberland.

Messrs. J. Stormonth and Son, Kirkbride, Cumberland, send us flowers of the beautiful Shortia uniflora grandiflora, which is very charming, and two double-flowered Anemones. They write: "We beg to contribute to your table flowers of three sterling novelties. The first are blooms of the new Shortia uniflora grandiflora from Japan. You will agree that it places both of the other better-known kinds far in the shade for beauty of colouring, its blush pink blossoms presenting a contrast. It should do well where the others succeed in moist peat; it seems a robust grower. The other blooms are double forms of the well-known Anemones, viz., apennina and ranunculoides, and are real additions. They succeed almost anywhere, and are lovely in wild gardens, rockery nooks or beds of spring flowers."

Anemones from Buckinghamshire.

Mr. E. Teschemacher, Lye Green Farm, Chesham, Bucks, sends us a delightful gathering of Windflowers or Anemones, which deserve to be far more extensively grown than they are at present. He writes: "I am sending you five kinds of Anemones, which to-day (April 19) are very beautiful in the garden. It is difficult to say why these early Windflowers are not oftener seen in gardens, for they are quite easy to grow if some attention is given to their requirements. Blanda (from the hills of Greece) and its varieties will flower freely in ordinary soil if given a sunny position. It has been in bloom for the last six weeks, and at the time of writing is finer than ever. I have experimented with fulgens for several years, and have found that it needs a sunny, well-drained place, and a deep, light soil rich in humus. Planting should be done early in September, and the young foliage and buds must be covered with hand-lights during January and February. I know of no more brilliant flower. The Apennine Windflower (A. apennina) will grow anywhere in a half-shady situation. I have it at the margin of a little wood, where it carpets the moist ground with blue every spring. Ranunculoides (the yellow Wood Anemone) does not seem to be a common plant in gardens, yet when thoroughly established in a shady nook it is wonderfully pretty. Our native Windflower (nemorosa) is not to be despised. I like to see its white stars peeping from among coloured Primroses."

BOOKS.

Alpines and Bog Plants.*—Encouraged by the kindliness with which "My Rock Garden" was received, Mr. Farrer has hastened to write a companion volume, "to make," as he says in his preface, "timely reparation, no less to my friends who read than to my friends who are written of—to the countless omitted beauties of my garden whom I had seemed to pass over in an ungrateful silence." The book is written in the same cheerful, airy strain as its predecessor, and is just as packed with information. The opening chapters are devoted mainly to the tinier shrubs for use in the rock garden, and enter so carefully and minutely into what to have and what not to have, and to their suitable placing, that they should be of the greatest help to would-be rock gardeners. It is impossible even to touch upon the interesting features from chapter to chapter in the space of a short notice. Mr. Farrer is still as refreshingly vigorous in his denunciation of the ugliness of varicus plants, and one may be far from disagreeing with him as to the extreme plainness of many plants, and yet see that there may be minor injustices, such as to bracket Groundsel and Dead Nettle together. Surely Dead Nettle might justly resent this? Not the least delightful part of the volume are the descriptions of treasure-hunting, and in the chapter headed "A Collecting Day above Arolla," an account of a day spent with M. Correvon, he indulges in some vivid word-painting that is absolutely charming. Here is his description of their coming on the haunts of one of the Houseleeks: "Over the sun-trodden slopes of grass the mule-track mounts to Arolla. The scant, brown herbage wavers in the heat. Little lizards pant in ecstasy on the burning stones of the low wall that skirts the cobbled ascent. A hot fragrance of life and flowers throbs round one as one goes, and from each burning surface of rock rise on stiff, sticky stalks the rosy star-clusters of Sempervivum arachnoideum."

* "Alpines and Bog Plants." By Reginald Farrer. Published by Edward Arnold, London, W. 7s. 6d. net.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* The Garden *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* Editor *of* The Garden, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* Publisher. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Edging to a herbaceous border (*Elizabeth*).—Mossy and other Saxifrages and dozens of low-growing alpine plants suitable for edgings, such as Thrift, Arabis, Aubrietia, Achillea in many forms, Pinks, Harebell and other Campanulas, Gentians, Megaseas, alpine Phloxes and similar subjects may be planted at once, and by so doing would grow into tufts capable of giving good flowers during the spring of 1910. The Pinks would be better planted in August, selecting freshly rooted young plants. The Gentian may be planted in October, and the rest now. For the purposes of an edging the plants should be reduced to small pieces.

Plants for a city garden (*W. E. Woodward*).—Yes, there is hope for many things, and in particular such as Mignonette, Tom Thumb Nasturtiums in distinct shades, Candytuft, Dianthus, Godetias, Linum grandiflorum, Shirley and other Poppies, Marguerite Carnations, annual Chrysanthemums, Malope grandiflora, Nigella Miss Jekyll, any of the Marigold family and others. Sweet Peas might also prove of service if a moderate depth of soil exists, and in such circumstances do not mind a little shade. We do not think the Edelweiss is likely to prove of much value, though it might be of interest in the driest parts. Such very cheap and easily grown perennials as Alyssum, Aubrietia, Iberis and any of the mossy Saxifrages should prove of service. In the sowing of the seeds of annuals, do not make the common mistake of emptying the contents of a packet into a 6-inch wide saucer-shaped hole; in this way the seedlings simply smother each other. An ordinary packet of Shirley Poppy may contain a few hundred seeds, and these thinly sown over a 6-feet wide bed would produce thousands of blossoms.

Flowering and foliage plants for Federated Malay States (*H. C. Barnard*).—In addition to the plants you enumerate, the following may be expected to thrive in the place you mention. A few foliage plants are given in addition to those which are valuable from a floral point of view: Allamanda grandiflora, A. neriifolia, A. Hendersoni, A. violacea, Amasonia calycina, Amherstia nobilis, Aphelandra aurantiaca, A. tetragona, A. velutina, Aralia elegantissima, A. Veitchii, Araujia grandiflora, Aristolochia elegans, A. gigas Sturtevantii, Bauhinia grandiflora, Begonias in variety, Bertolonia houtteana, B. marmorata, Bignonia buccinatoria, B. capreolata, B. venusta, Bougainvillea glabra and variety sanderiana, B. spectabilis, Brownea coccinea, B. Crawfordii, B. grandiceps, Brunfelsia calycina, B. latifolia, Buddleia madagascariensis, Cæsalpinia pulcherrima, Calodendron capensis, Camoensia maxima, Carapa guianensis, Cassia corymbosa, Cestrum aurantiacum, Crotons—or Codiæums, as they are scientically called — any garden varieties, Clavija macrophylla, Clusia flava, C. rosea, Coccoloba grandifolia, Coleus thyrsoideus and

any garden varieties of C. Blumei, Combretum grandiflorum, C. purpureum, Datura arborea, D. sanguinea, D. suaveolens, D. chlorantha, Eranthemum albiflorum, E. Andersonii, E. cinnabarinum, Erythrina Crista-galli, Euadenia emineus, Eugenia Jambos, E. cauliflora, Euphorbia pulcherrima, Francoa ramosa, Gardenia florida and varieties, G. Thunbergia, G. Rothmannia, Gesnera cardinalis and other species, Gloxinias, Gœthia floribunda, Hoffmannia Ghiesbreghtii, Hoya carnosa, H. imperialis and others, Ipomœa rubro-cærulea, I. Bona-nox and others, Jasminum Sambac, Lagerstrœmia indica, Manettia luteo-rubra, Momordica cochinchinensis, M. Charantia, Napoleona imperialis, Victoria Regia, Ochna multiflora, Passiflora racemosa, P. edulis, P. quadrangularis, Peperomia in variety, Plumeria alba, P. bicolor, P. lutea, P. rubra, Pogonopus caracasensis, Posoqueria macropus, Randia macrantha, R. stanleyana, Sterculias in variety, Strobilanthes dyerianus, Anthurium andreanum and varieties, A. cristallinum, A. grandifolium, A. scherzerianum and various varieties, A. Veitchii and many other sorts, Bomarea Carderi, B. edulis, B. multiflora, B. patacocensis, Crinum angustum, C. Kirkii, C. erubescens, C. purpurascens, Eucharis grandiflora, E. candida, Dracæna fragrans var. Lindeni, D. goldieana, D. sanderiana, D. godseffiana and all the garden Dracænas, Marantas in variety, Philodendrons in variety, Bromelias and many other tropical things which you might experiment with. Mr. J. W. Campbell, the Superintendent of the Government Gardens and Plantations, Perak (Taiping), would probably be able to give you expert advice on the subject; he is an old Kew man and of a courteous nature.

Arrangement of bed (*Hilda*).—You have set us a rather difficult task, inasmuch as the Roses on the fence, by reason of their height, will catch and dominate the vision unless you employ a rather tall plant as a foil. The most suitable subjects are variegated Maize or Eulalia in the background. Unfortunately, you have a preponderance of red in the Begonias, and we can clearly see the inharmonious effect produced. Had it been possible to have planted white-flowered Begonias there some improvement might have resulted. In the circumstances, we think you cannot do better than obtain seedlings of the Maize to plant behind the Begonias.

Water Lilies (*A. G.*).—A good coloured variety is Nymphæa Marliacea flammea or N. Laydekerii rosea, and a good pink one is N. Marliacea carnea. The Arum Lilies might do quite well if sunk in not less than 2 feet of water, so as to be out of the reach of frost. Success in these things often depends much upon the quality of the water. A very good and reliable plant is the double Arrowhead (Sagittaria japonica flore-pleno). If the weed patches on the lawn are of large size, some of the old soil would be better removed and a little fresh added; indeed, in almost any case this is desirable, as the weeds may have seeded there, and will be in evidence again unless steps are taken to prevent their reappearance. Sow the seeds at once.

TREES AND SHRUBS.

Bays in tubs going wrong (*A. H. Rydon*).—From what you say of your Bays, a good thinning out of the weakest wood and cutting back of the branches would do them good, after which a thorough wash over would improve them. The pruning ought to be done immediately, and do not be afraid to thin out poor wood. After the pruning lay the plants down and syringe them well with a mixture composed of a quarter of a pound of soft soap, a pint of paraffin and six gallons of water. The soft soap should be dissolved in a little hot water and the paraffin thoroughly mixed with it, after which it should be sprayed through a fine-rosed syringe into the water. While the syringing is being done turn the plants occasionally to thoroughly wet each part. After the mixture has been on a little while, hose the plants over, and a lot of the dirt will come off. The wash may be repeated in six days' time. Should the weather prove dry after the pruning, a good syringing overhead two or three times a day for a few weeks will do good. Three weeks after the pruning, when signs of new growth begin to appear, retub the plants. Well drain the tubs and use a good coarse compost of two parts fibrous loam and half a part of mortar rubble and sandstone, with half a peck of half-inch bones to two bushels of soil. During the operation remove as much old soil as you can before retubbing. Should the soil appear to be full of worms, water the plants two or three times with soot-water previous to undertaking the work. In dry weather you may keep on syringing the plants overhead until the young shoots are 1 inch or 2 inches long. In the event of the leaves becoming dirty at any future time, you can have recourse to the wash as advised above.

Destroying tree stumps (*O. H.*).—It is not possible to say why you have failed in getting your tree stumps to burn. You have evidently proceeded in the right way. You might try a wider and deeper hole, with more saltpetre. Occasionally tree stumps that prove difficult can be burned by making a second hole at right angles with the other to meet it at the bottom; this acts as a flue. If you cannot succeed with the saltpetre, there is nothing for it but to grub the stumps out of the ground, dry them for a little while and burn them, either whole or blow them to pieces with gunpowder or some other explosive.

Laurel leaves turning yellow (*C. A. Severn*). It is impossible to say with any degree of certainty what the reason is for your Laurel leaves on a few branches turning yellow without more knowledge of the conditions under which your plant is growing. It is quite natural for fully developed Laurels to lose a branch or two occasionally, but the gaps are usually filled up during the first season. We advise you to give the plant a top-dressing of 4 inches of good well-rotted farmyard manure at once. If the plant seems at all dry at the roots, a good watering might be given with good results.

ROSE GARDEN.

Frau Karl Druschki with split bark (*Druschki*).—This popular Rose has many peculiarities, and where one individual can grow it to perfection, another has considerable difficulty in obtaining a respectable bloom at all. We have found that it dislikes the Manetti stock. It makes enormous thick growths on this stock; but if examined the plants show signs of disease before they leave the nursery, and although they may linger for some time, they eventually die. Plants on the Briar stock we have had most success with, and the seedling Briar best of all, while in standards it is an ideal Rose with us. We think, in your case, the injured wood is the result of too much chemical manure. Guano, bone-meal and kainit are good servants when used in moderation, but they are bad masters, and we should say, if you examined the roots, you would find them anything but a healthy white. In future try this Rose in a special bed of good, sweet, loamy soil, enriched only by good farmyard manure. Prune the plants fairly hard, and those very strong, thick growths cut down to 1 inch or so of their base; if you do this you will probably have success. Put in some cuttings next October, for this Rose strikes freely and succeeds admirably on its own roots; but be careful to select healthy growths.

Rose Veluwezoone (*E. Thomason*).—We cannot give you the address of Baron von Pallandt. There is a Rose bearing his name, and we believe you could obtain the address desired through Mr. T. Boehm, Obercassel b. Bonn, Germany.

THE GREENHOUSE.

Orchids in bad condition (*F. J. S.*). Several causes have played a part in bringing your Orchids into the condition in which they now are. In the first place they have been kept much too warm, for a temperature of 55° by night, rising about 10° by day, would be sufficient. Of course, now that the weather is getting warmer, the night temperature may be somewhat higher. Next, some of the enclosed leaves are very badly infested with scale, which injure the surface of the leaf and cause the smaller spots complained of. In addition there are traces of other insect pests. The Dendrobium would naturally lose some of its leaves at this season, but the large blotches thereon are caused by some fault in culture; we should say from too much heat and too much moisture in the atmosphere. Your better plan will be to sponge the leaves of all your plants with a lather of soft soap and warm water, taking care at the same time to remove every scale. This may be done with a piece of pointed stick, and if carefully carried out the leaf will not be injured in any way. Of course, the sponging will remove many of these pests, but the remainder must be taken off with the pointed stick. The Calanthes, too, undoubtedly suffered from an excess of heat and moisture. A careful perusal of the First Prize Essay on "The Six Most Popular Orchids and How to Grow Them," which was published in THE GARDEN for April 17th, would be of great service to you.

Hyacinths failing (*St. Davids*).—There are several causes that may have contributed to the failure of your Hyacinths, and it is difficult—in fact, well-nigh impossible—to state any definite one, especially as not a word is said as to the treatment the plants have received. We think that the main cause is the want of good healthy roots, caused principally by improper treatment during their earlier stages.

FRUIT GARDEN.

Black fly on Peach trees (*E. N. Grays*).—Black fly is one of the most difficult pests to eradicate by fumigation. To apply fumes of the compound mentioned strong enough to kill the fly to trees in the condition of tender growth of foliage and fruit such as yours are in would be running a dangerous risk of doing serious injury to your trees and crop. This fly generally attacks the upper points of the young shoots, causing the leaves to curl up and making the effective application of any insecticide most difficult. The best plan to adopt in such cases is, we think, to untie the affected shoots and steep them for a couple of minutes in a saucer or some other convenient vessel containing a strong solution of Tobacco juice. This, if it comes in contact with the fly, will kill it, and will not hurt the shoots. Should the tips of the shoots be very badly affected, the best way will be to cut off the affected parts and burn them. The short side growths or spurs are also sometimes affected. The only way of ridding these is by carefully syringing with Tobacco water, using sufficient force to dislodge the fly. The trees must be closely watched for some time afterwards, and if any more fly is seen the treatment should be repeated.

Black Hamburgh Vine bleeding (*Grape Vine*).—You should have pruned your Vine (growing on your wall out of doors) early in the winter, say, about the middle of November; it would not then have bled. You will find that immediately the Vine breaks out into growth the bleeding will cease, the growth absorbing into itself all the sap. You may then remove the bandages.

Pruning a pot Vine (*W. Frank*).—The proper course to pursue with your Vine in order to compel it to bear fruit another year, would be to turn it out of its pot and reduce its bole of soil and roots by 2½ inches all round. Never mind cutting away some roots in order to secure this reduction. The Vine should then be replanted in the same sized pot (washed and properly drained) in good turfy loam, adding half a pint of bone-meal and the same of lime to every peck of turfy soil. In filling in the space in the pot round the roots the soil should be rammed as hard as possible. The next thing to do after finishing the potting will be to prune the Vine. This should be done by cutting the old thin shoots (B and C) to within a foot of their base, placing the Vine afterwards in a cold house where it is protected from too much rain and frost. About the middle of next March it should be introduced into a vinery or some other glass-house with a temperature during the day of 60° Fahr., falling to 50° at night, gradually increasing the temperature both night and day as the days lengthen. Young, vigorous roots would soon form in the new soil and new shoots emanate from the old branches, which the following year should produce a few bunches of Grapes, and more every year afterwards as long as the Vine remains in robust health. Treatment such as that described can only be carried out by a gardener who knows something about the work and has the necessary glass-house convenience for carrying it out. Have you not a capable gardener in your district to whom you could entrust the work? With the accommodation of the porch alone, all you can safely do is to take off the surface soil for 2 inches or 3 inches down and replace it by the same depth of the new soil already described, ramming it down quite hard. As regards pruning, it is only safe for you to prune the shoots of the previous year's growth, and these should be cut to within two buds of their base.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

THE WAY TO GROW ASPARAGUS.

MANY questions have been asked recently as to the best way to grow Asparagus, and we are glad to know that there is an increasing desire to obtain good vegetables in this country. The want is one of variety, and we see no reason why Asparagus—a delicious, wholesome vegetable—should not be as easily obtained as the too-often evil-smelling Cauliflower. The following notes have been written by Mr. G. Wythes, who for many years was gardener to the Duke of Northumberland at Syon House, Brentford. The Asparagus beds there are, one may say, historic, and it is for this reason we publish these notes:

Asparagus

grown in the ordinary way is in season from April to the end of June; but with very small cost after the initial stages good material may be secured at an earlier date, when there are none too many good vegetables to select from. Where there is a good loamy soil, and with helping materials at command, excellent Asparagus may be grown at a small cost. Only last season I saw splendid Asparagus grown in fields; the plants being given ample room and manured yearly gave no further trouble. The question often comes to my mind, Do we not coddle the plant too much in our small gardens? The ordinary system of forcing is even more costly than in the case of many ordinary vegetables, as the plants must be at least three years old before they are forced, and once this is done—I mean by lifting the roots in the usual way and growing them in heat—they are worthless. Many growers cannot do this, and I would advise forcing permanent beds. I saw this culture commented upon recently, and the term "planting in hot-beds" was used. I would explain that is when the plants are lifted; doubtless what was meant was forcing permanent beds with manure. When this is done the beds last many years and they force readily every season.

Another point was that early kinds should be grown; but with regard to these there is not much difference—indeed, Asparagus varieties are few in number. I have grown the Colossal by the side of the Argenteuil and can see no difference; the Erfurt Giant is one of the large kinds, but not so early as Argenteuil, and the Palmetto, an American introduction, is a bright green variety, distinct and also a free grower. Those who prefer a large kind should give the Giant French a trial; this is much grown in the market gardens of Paris and is a splendid garden variety. Of course, much depends upon the culture. Asparagus does not like a very wet soil or stiff clay, so that when beds are made it is well to add such soil as the plants like; for instance, a heavy soil is much improved by adding liberal quantities of lighter material, such as burnt refuse, old fine mortar rubble, leaf-mould or spent manure; this especially refers to the surface soil, as this must be light when the seed is sown, and even when roots are planted a generous top soil gives the best results.

The Formation of the Beds.

I am considering now the beds to be forced to give the supply at the time named, and for those that are to be forced there must be a good depth and space between each bed, which should be 3 feet wide and deep. The beds are formed with a single 4½-inch wall, pigeon-holed. This is the retaining wall between the beds; the end walls are 9 inch, but solid. I advise that they be built at least 18 inches to 2 feet above the ground level. The beds, as regards length and numbers, can be made to suit the grower's convenience, but they must not be too wide, as three rows of plants are sufficient. To get this, 4 feet to 5 feet must not be exceeded. This may be somewhat close, but the beds, if too wide, do not get sufficient warmth in the centre from the heating material. They are quite solid underneath; I have found that when they were at all hollow the plants were less satisfactory, as they got so dry in the early summer, at a time of year when the crowns were forming for another season's forcing. By this I mean the beds are filled in when the walls are firm; rough turf or siftings from the burnt refuse makes good drainage. Good loam is preferable, well enriched with manure; the plant revels in a sandy loam with abundance of food, and it should be remembered that the beds, with merely rich top-dressings,

Will Last for Many Years.

The work should be well done at the start. In suitable land it may not be necessary to take out the soil, but to build the walls, removing the soil between the beds to the depth required, and when the walls are set to trench the beds and incorporate a good quantity of decayed manure as the trenching proceeds. The work is best done some time in advance of planting, as it then becomes settled down. As regards

The Planting,

I prefer two year old plants, but these must not be forced the first year. Allow a full season's growth, only a light crop being taken the second season, but afterwards the plants will force readily and give a regular supply. The warmth is obtained as follows: Liberal quantities of fresh tree leaves are collected in November

and December and placed in bulk; to this is added the same quantity of manure, and this is placed in the trenches late in December. Each layer of material is well trodden or rammed to the top of the brickwork, and as this sinks it is made up of fresh material, over the top of which long strawy litter is placed to throw off heavy rains or snow. The beds are also covered with some short, warm litter when they are ready. I mean the heating material should be in position, and the beds will give supplies in a month or six weeks from the making up; but in severe weather it is well to give them more cover in the shape of long litter. Each autumn the old heating material is taken out, as this makes an excellent top-dressing for most things, and is of great value in the garden. During the summer the beds are helped in the shape of liquid manure, also, in rainy weather, food in the shape of rich fertilisers.

When the cutting ceases give a top-dressing of rich manure; this will be at the end of April, when the ordinary open-ground beds will give the supply. I have seen beds forced with hot water in pipes in hollow chambers, but I prefer the above, as there is a moist gentle heat and the roots each year come freely through the pigeon-holed wall and get a lot of assistance from the heating materials; these when taken out are a mass of fibre.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

May 18.—Royal Horticultural Society. Exhibition of Flowers, Fruit and Vegetables, 1 p.m. to 6 p.m. Lecture at 3 p.m., by Mr. A. Clutton Brock, on "Alpines in Their Native Homes." Tulip Society's Show. Royal Horticultural Hall, Vincent Square, Westminster.

May 25.—Royal Horticultural Society. Great Spring Show, Inner Temple Gardens, Thames Embankment, 12 noon to 7 p.m. Admission 10s.

May 26.—Great Spring Show, Inner Temple Gardens. Private view to Fellows only, 7 a.m. to noon; public, noon to 7 p.m. Admission 2s. 6d.

May 27.—Great Spring Show, Inner Temple Gardens, 9 a.m. to 6 p.m. Admission 1s.

Flower show for our Readers.—We wish to impress upon all our readers the importance of collecting the coupons which are appearing in these pages week by week. The show, judging by letters received, will be a big success and the honour of winning the prizes and medals no small one. We rely on our readers to make the exhibition one of the best in the country, and we hope as many as can do so will exhibit either flowers, fruits or vegetables, or all of them. For the benefit of new readers we draw their attention to the schedule which appears among our advertisement pages, and wherein particulars of the show are given. We trust that all who intend to exhibit will carefully observe the schedule, as this will make matters much easier for our staff. The names of the judges will be announced in due course. Remember that £100 in prizes and a gold medal and silver medals are offered.

The proposed vegetable society. I am fully at one with the writers in THE GARDEN who have urged that there is abundant scope for a National Vegetable Society, and I have relished particularly the vigorous remarks of "A. D." It does seem strange that with numerous special floral societies there should be none for vegetables. The difficulty of the position arises from the very perfunctory interest taken in vegetables by the great mass of amateurs. They will crowd in their thousands to Rose, Sweet Pea, Carnation and Daffodil shows, but will hardly look at vegetables. I have particularly noted the attitude of the public at great shows like the Temple and Shrewsbury; the people almost suffocate each other in the flower tents, but practically leave the magnificent displays of vegetables to professional gardeners. In these circumstances a National Vegetable Society could not look for a great income from a show; in fact, would probably lose money on its exhibitions. Its income would have to come, therefore, from members' subscriptions and trade contributions. Would they suffice? I must confess to doubts. However, the matter is well worthy of discussion, and if a meeting could be arranged at Temple Show time I would attend gladly. Mr. Edwin Beckett, V.M.H., Mr. Owen Thomas, V.M.H. and other prominent growers might be asked to take the lead perhaps. The attitude of the trade would be an important factor. What are their views?—WALTER P. WRIGHT. [See also "Correspondence."]

Chester Paxton Society's annual exhibition of fruits and Chrysanthemums will take place in the Town Hall, Chester, on November 17 and 18 next.

Four Oaks Knapsack Sprayer. At the great demonstration of spraying machines held at Wisbech on the 22nd ult., when all the leading makers of machines competed, both English and foreign, the Four Oaks Knapsack Sprayer was awarded the first prize, viz., a silver-gilt medal.

British Gardeners' Association. The next meeting of the London branch will take place on Thursday, May 13, at Carr's Restaurant (Charles Dickens' Room), Strand, next to the Law Courts. Mr. E. F. Hawes will take the chair at 8.15 p.m., when Professor W. B. Bottomley, M.A., of King's College will give a lecture, illustrated by lantern slides, on "Nitrogen Fixation in Plants." Many of the leading horticulturists are expected to be present. Professional gardeners interested in the subject should take advantage of this opportunity.

Huntingdonshire Spring Flower Society.—The fourth show of the above society was held at Huntingdon on Tuesday, April 27, when there was a record attendance and entry. Messrs. Barr's Daffodil Cup was won by Mr. R. R. Darling, Potter's Bar, Mr. J. Cator, Woodbastwick, being second and Miss Linton, Buckden, third. Some splendid trade exhibits included Messrs. Barr, Messrs. R. H. Bath, Limited, and Messrs. Pearson, Lowdham, with Daffodils; Mr. J. Mallender, Bawtry, with seedling Daffodils; Messrs. W. and J. Brown, Stamford, Messrs. Perkins, Huntingdon, and Messrs. Laxton, Bedford, with general spring flowers; and Mr. G. Reuthe of Keston, Kent, with a capital show of alpines, &c. Lady De Ramsey and Messrs. Laxton showed American Tree Carnations, prominent among which were Harlowarden, White Perfection, White Enchantress, Rose Enchantress, Jessica and Challenger. The celebrated Radeski Band played at intervals. Altogether it may be said to have been a charming and enthusiastic exhibition.

Wall-trained flowering shrubs.—As a rule we do not make enough of many of our beautiful flowering shrubs as wall coverings. When so trained they seem to show their natural beauties in more striking form than when grown in shrubberies. I have just seen on a wall at Hampton Court Palace one of the finest specimens of Forsythia viridissima probably to be found anywhere. The plant covered a wall space 26 feet long by 12 feet in height, and was a mass of golden flowers. As it fronts on a narrow road, it is compulsory that it be closely trained. Could it have room to allow the annual shoots to stand out from the wall some 2 feet to 3 feet, what a grand mass of flower it would present. Close by is a Pyrus japonica rosea, also flat trained, filling a wall space of 144 square feet, a glorious mass of bloom; but deciduous flowering shrubs so trained need to have alternated with them evergreen shrubs to throw them up by contrast. Somehow a real effort to so dress a wall does not yet seem to have been made.—A. D.

"Who's Who in Horticulture."—Under the title of "Year Book and Who's Who in Horticulture," the Cable Printing and Publishing Company, Limited, Hatton House, Great Queen Street, London, W.C., has published an interesting little volume at the price of 1s. In addition to numerous useful articles on gardening subjects, short accounts of prominent persons in the horticultural world are given.

Spring flower gardening at Hampton Court.—Bulbs generally, and Tulips especially, are this spring playing important parts in the fine decorative effort being made at this popular place of resort. Tulips, indeed, especially in the long wall borders, are in immense quantity. Here, planted in sections and fairly close, with other plants interspersed, although still rather flat, they make a brilliant and a varied display. Numerous visitors must note this season many beautiful Tulips they have not previously been familiar with in the large beds margining the broad promenade. Necessarily, Tulips dotted here and there between Polyanthuses, double Daisies, Wallflowers or similar plants give somewhat formal effects. A few beds with groups or clumps of various bulbs on carpets rather than dotted singly would be welcome breaks. A few specially charming combinations were a base of double Arabis, with King of Blues Hyacinths and Cottage Maid Tulips; Tulip Artus on white and yellow Polyanthuses; and double Tulip La Candeur, with pale blue and pink Hyacinths on Aubrietias and Daisies.—D.

PRIZES FOR READERS.

MAY.

THE BEST METHODS OF GATHERING, PACKING AND TRANSMITTING FLOWERS, FRUITS AND VEGETABLES FOR EXHIBITION.

A First Prize of FOUR GUINEAS,
A Second Prize of TWO GUINEAS,
A Third Prize of ONE GUINEA,
And a Fourth Prize of HALF-A-GUINEA

are offered for the best essays on the above subject.

We think that as exhibition time is now approaching essays on this subject should be of value, especially to those who intend to exhibit at THE GARDEN Show. Essayists should confine their efforts to the items set out above, and should bear in mind that exhibits may have to be sent without anyone in charge or may be accompanied by the exhibitor.

The notes (restricted to 1,500 words) must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, W.C." The essays must reach this office not later than Monday, May 31. Both amateur and professional gardeners may compete, but it is hoped that those who contribute regularly to the pages of THE GARDEN will not do so. The name and address of the competitor must be written upon the MS., and not upon a separate piece of paper. The Editor accepts no responsibility for and cannot undertake to return the MSS. of unsuccessful competitors. The Editor's decision is final.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

A National Vegetable Society and Exhibition.—It is but too obvious that the aspirations of those interested in vegetable culture—and, indeed, who are not?—must for realisation depend very much on proffers of tangible assistance from the seed trade. It is this trade which has in the past been the primary promoters of vegetable competitions, and it is difficult to find a schedule of any local horticultural society, large or small, in which classes provided by the seed trade do not occur. What is needed is, now and then at least, some concentration of that form of liberality and encouragement in London at a great special vegetable exhibition. Will the trade assist in such a way now? That is the question. If great firms like Sutton, Carter, Webb, Sydenham, Dobbie and a few others would make liberal offers, with very few limitations as to conditions, a really fine schedule and a splendid show could soon be provided. That is the crux of the whole matter. With such a start at once, a society, and from that a strong and an impartial committee, could be formed and the matter arranged speedily. Mr. W. P. Wood's suggestion as to a meeting of gardeners and others interested in vegetable culture during the Temple Show is a good one, but must, all the same, depend on the action of the seed trade. Now, will any members of that body make offers such as will justify the convening of such a meeting? Let no seed firm wait to learn what another is going to do, but make a spontaneous offer at once, and all do likewise. Let offers be sent direct to the Editor of THE GARDEN or to me.—ALEX. DEAN, *62, Richmond Road, Kingston-on-Thames.*

Artificial manures.—I am much obliged to "K." for his reply to my enquiry regarding the analysis of Wakeley's Hop Manure, but would point out that the analysis he gives is misleading, as it is the analysis of the manure after being dried at 212° Fahr., and not as sent out. If the manure contains 50 per cent. of moisture, the nitrogen, phosphates and potash contents are reduced by half. A sample of spent Hops received from a local brewery when dried gave, on analysis, nitrogen 3·75 per cent., soluble and insoluble phosphates 1·33 per cent., potash 75 per cent. (moisture 68·5 per cent.). The nitrogen contents in spent Hops is, therefore, higher than in the specially prepared Hop manure.—A USER OF SPENT HOPS.

Coloured plate of new Carnations.—The Rev. J. Jacob has described these in a most interesting way, a gift which is somewhat rare. He speaks highly of Lady Dainty, but mentions this variety first, and I must say that, although it is pretty, Black Chief stands out as a much more valuable variety, being one that Carnation-growers have been wanting for some time, namely, a really free-flowering crimson, which, besides being the real Clove colour, has the old Clove scent. He has described this variety so well that I will not attempt to improve upon it, but only write you to emphasise the fact that Black Chief is a commercial variety, whereas Lady Dainty is a fancy.—LAURENCE J. COOK.

Swede Turnip Greens.—"A. D.'s" suggestion in your issue for April 3 is an excellent one. I have never gone so far as placing the pots of Swede Turnips in a warm frame, but I have on several occasions—and am thankful to say that the present season is one of them—obtained from the home farm and other sources sufficient roots soon after Christmas and planted these in rows in a sheltered part of the kitchen garden. As "A. D." says, these furnish an abundance of the very best Greens. Now, it may not be known to all gardeners that there are two types of Swedes—the red and the white. The red starts into growth earlier than the white, although the latter is much the hardier in constitution. I mention this for two reasons—first, we want the one which will give us early Greens; secondly, we want a succession of Greens, so that if we plant both varieties we shall obtain what we require. In reference to planting in frames, I think this would be only necessary in a very severe winter and one of great scarcity like the present. All the same, it is an excellent idea; and if we have the roots at hand the trouble is almost *nil*. We must, however, use caution as regards the heat. These Swede Turnips will not stand great heat, which is sometimes given off from horse-manure. The least amount of heat at the roots will start the crowns into growth, and air must be given freely. On the Cotswolds we drop the word Turnip, only using the first name, viz., Swede. I mention this to save confusion. One other kind of Green which I think may very well be brought on in a frame is the Turnip. This we have placed frames over and found it to answer well. Here the Greens from the Turnip are far more important than those from the Swede. By most people it is considered much more wholesome, and I believe this is the doctor's view. There can be no doubt that the past winter will have been a fine schoolmaster to most of us, as in future we shall look ahead and try to provide for contingencies. "A. D." has certainly given us a real good "tip," which I shall try to remember.—A., *Cirencester.*

First early trumpet Daffodils for market work.—It will interest your many readers if I mention that I have for years been trying to raise a stock to meet this purpose, even earlier sorts than my introduction twenty years since, by putting Ard Righ on the English market in thousands. To follow up, at the end of last August I put into a sheltered south border over thirty sorts, the names of which will be given later on. Among the lot was one called Androcles, a fine, bold, upright flower of rich yellow. It came in first and was in bloom on February 4, to be followed by such as Cervantes, Claddagh and Early Bird. I have always considered the three latter varieties as more early sorts, but having had reports from some of my New Zealand patrons to the effect that, within the surroundings of Auckland, Androcles was their first bloom, I made the test this season, and find the difference as stated. I wish I had not parted with it so freely. The much-sought-after Golden Spur will only hold about sixth place as an early flower when I give you particulars of the remaining portions of the trial.—WILLIAM BAYLOR HARTLAND, *Ard Cairn, Cork.*

A note on window-boxes.—Eight years ago I was struck by the pleasing appearance of some window-boxes I saw with irregular-shaped cork-bark nailed to them. I made a couple of boxes and nailed bark to them. I found, when moving the boxes to replant them, that pieces of bark were often broken off. This set me thinking, so I made another box and also a simple wire frame, fastened some bark to it so that the frame could not be seen and then connected it securely to the box in such a way that it could be detached from it and replaced in a few seconds. The advantage of this method is obvious. The frames I make now are different to the first ones, experience having taught me the best way. I add bark pockets for flowers to the frames. These pockets are also easily detached in a few seconds. I have also made a lot of cork-bark flower-pots of various shapes and sizes, some with detachable rustic wood stands, others with rustic wood or wire suspenders. Two years ago I began much more elaborate work of this kind, making some of the most pleasing and artistic receptacles for flowers. Most of these I have been induced to sell, others I have given away; but I am again about to take up the tools to make more, ready for spring planting. Anyone who can use a few simple tools, and possesses the knowledge of the right way to do it, should be capable of doing some creditable work of this kind in its simplest forms. After some practical knowledge has been gained, more elaborate work may be attempted. It is admired by all, the cost is not great and when the proper materials have been used I can guarantee their lasting qualities, as I have some of my original work still in use.—RUSTIC.

Polyanthus Primroses.—I read with some surprise Mr. W. A. Watts's statement that this form of Primulaceæ was raised by a Mr. Walton. Seeing that I was growing remarkably fine strains of both true garden Primroses and Polyanthuses for some twenty years, beginning at Bedfont, so long since as 1871, and annually by many thousands, it is with the long experience obtained amusing to read that anyone claims to have raised what has come so naturally. With Primroses the trouble in growing seedlings was to eliminate the many plants that, bringing flowers on Primrose stems first, produced flowers as scapes on Polyanthus stems later. In the same way Polyanthuses raised from seed saved from pure Polyanthuses would produce these early Primrose flowers, then be followed by others as scapes. This feature invariably showed how small is or was the distinction between Primrose and Polyanthus. But this feature crops up in every collection of seedling border Polyanthuses, and is peculiar to no strain. I have had such plants to carry flowers in open winters from November till April, and even longer.—A. DEAN.

Germination of Sweet Peas.—When visiting the garden of one of our Sweet Pea-growers, my attention was drawn to a large number of plants in shallow boxes raised from an early sowing, the plants then being 3 inches in height. The grower had sown seed saved last year in distant California and similar varieties from home-saved seed. In the former case the produce was 100 per cent. of robust plants; in the latter case it was from 20 to 30 per cent. only and the plants were rather weak. While the first-named seeds were full and round, the latter were all pale, thin and somewhat shrivelled. I am not quoting this instance with any desire to belittle home Sweet Pea seed-saving; I am merely stating it as an interesting fact. That California has a magnificent seed-ripening climate there can be no doubt. Ours for the past two years at least has not been at all favourable for this purpose, and to the weather last autumn doubtless the failure on the part of home-saved seeds to germinate well, as in this instance, is due. Possibly other growers have been more fortunate. If some have not been so, they will know where to place the blame.—D.

Daffodil notes.—The uninitiated would scarcely have believed it possible for the committee of a Royal society to have registered names for flowers which were not in existence. Mr Jacob's notes on page 200 of THE GARDEN state this fact, which has also been admitted by another member of the select committee which issued the new classification of Daffodils. It is very unfair, to use the mildest term, for a person to register a name for a possible flower which he may have in his mind's eye, and which, with the cross-fertilisation of hundreds of flowers, he may never succeed in raising. If such proceedings were permitted, it is no wonder that hundreds of names were printed without raiser or class attached to them. To an amateur who would gladly be free from naming an indifferent flower, the regulation attached to showing new seedlings, that they must be named, seems the point which wants alteration. Why should not the flowers be shown under numbers—Adlers 4, Wolfes 3, or Bears 60? If distinct and good when accorded honourable commendation, award of merit or first-class certificate, then name them with a description, class and, if any society wished,

a photograph. No seedling to be shown the first year of flowering; three flowers at least to be shown to gain the lowest distinction and nine at least for the highest. No person's name should be given to a flower without his or her consent, unless it happens to be the name of some distinguished foreigner, who would probably never know that his name had been so used. All people have not the same universality of judgment as the Rev. J. Jacob, and probably there would be a great difference in the flowers which they would consign to the rubbish-heap. There are many hundreds of flowers not worth naming, yet which are new and varied and are of value for bedding and pot purposes, which might be reckoned as X (cross) varieties, such a recognition putting an end at once to a desire for an enormous number of names—Brown, Jones, Robinson or any other owner, gardener or raiser.—AGRICOLA.

Early Sweet Peas.—At the end of September, 1908, I dug up a plant out of a row of Sweet Peas (which had been flowering all last summer) and potted it up in a 9-inch pot in good loam with a sprinkling of silver sand. The growths I then cut back to within 2 inches or 3 inches of the roots and placed the pot in the open, when in a few days new growth commenced to appear. The plant was placed in the greenhouse a few days before Christmas, and on April 11 I cut the first spray of flowers. It is now about 6 feet in height and full of fine blooms and buds. I must remark that the minimum temperature was about 40° during the hard weather; but although a great many buds were made, they did not come to perfection until firing ceased at the beginning of last month. I have mentioned the subject to several professional gardeners, and as they had not heard of this method of growing early Sweet Peas, I thought my experiment might be of interest to some of your readers.—JOHN BLAND, *Welland Bank, Market Harborough.*

Manures for alpine plants.—Mr. S. Arnott (*see* p. 190) will doubtless be interested to know that it is upwards of thirty years since I first began experimenting with organic and artificial manures for alpines. At the time I was promptly voted an extremist, and more than once reminded of the ledges, crags and fissures of rock on which many alpine plants made their home, where applied manures of all kinds were absolutely foreign to them. A stock reply of mine at the time was that the 2 feet or 3 feet depth of soil of which many rock gardens were made up was equally foreign; while a thousand times more foreign than all was the fact that we coveted and desired these plants of other climes, brought them into a foreign land and exposed them to all the changes and vicissitudes of a climate none too genial, and in which the plants were bereft of their winter protection of snow. I have never seen an analysis of mountain snow, and am therefore entirely ignorant as to its composition and whether any of the primary elements of manure enter into it, or to what extent. But I know that manure can be used with benefit to these plants, and the whole subject turns upon this one word—discretion. Woolly-leaved subjects like the Androsaces do not require it, and a very little may be too much. At the same time, A. foliosa delights in a rather rich, sandy loam and grows and increases with great rapidity. The Onosmas and Omphalodes Luciliæ are so easily poisoned by organic manures that I usually advise that none be used for these plants. The wood-ashes from the rubbish fires, which are rich in potash and other things, must be used in very small doses indeed, for, while assisting in making an ideal potting mixture, it is very deadly when employed about the roots of choice alpines, chiefly because of its soluble and quick-acting properties. But the same material in very moderate doses and always mingled with soil might be advantageously employed for alpine plants in the borders or in the rock garden. Free-growing and strong-rooting subjects like Anemone Hepatica, the Adonis, Aubrietia, Phlox setacea and its great following, may be manured freely, and I believe I am correct in saying that Mr. T. Smith of Newry once wrote me to the effect that Primula pubescens alba (the P. nivalis of gardens) was as much at home on a manure-heap as in the rock garden. In any case, I know that the finest development in this and many other Primulas has been obtained by the heavy manuring of the ground in which they were planted. Nor did this greatly increased vigour appear to have the least drawback, but the reverse. An alpine plant is seen in Nature in the smallest of rocky crevices, perhaps with but little or no soil, but its being there is due to circumstances, and it does not follow that the plant would not do much better elsewhere. Indeed, this is apparent when the growth of plants in upland pastures is compared with that of higher altitudes; and while these plants in Nature do not receive manurial dressings such as are understood in garden parlance, this is not to be regarded as proof that such manures are opposed to their well-being or success. The manures to avoid are quick-acting or highly concentrated ones, an overdose of which will promptly disfigure a free-growing Chrysanthemum. All farmyard or stable manure should be of such an age that it may be rubbed through a sieve of a quarter-inch mesh, and such as this, heated sufficiently to destroy worms and other insect-life, may be used with advantage. Just what quantity should be employed and to what plants will depend on the plant itself and, in particular, the character of its root system. Slow-acting manures, such as bone-meal, for surface dressing can usually be given, and I have frequently employed organic manures for the choicest Saxifrages with advantage. Bone-meal should be mixed with the soil a month before using, turning the heap twice or thrice meanwhile. Soot, too, is excellent in every way. By the use of manure none would desire to destroy altogether or even to rob an alpine of its chief characteristics, but rather to endeavour to improve its growth and flowering by the ordinarily approved methods of culture.—E. H. JENKINS, *Hampton Hill.*

MR. ROBERT SYDENHAM.

MR. ROBERT SYDENHAM.

A HORTICULTURIST one admires for his business acumen and courtesy is Mr. Robert Sydenham, "Uncle Robert," as one likes to call this son of Birmingham. It is a pleasure to publish a photograph of one who has a love of flowers in his heart and in his home grows them to perfection. Mr. Sydenham is well known in Birmingham; he possesses a knowledge of flowers and jewels, and we venture to express the opinion that perhaps the flowers are the most appreciated. The Birmingham Daffodil Society owes much to Mr. Sydenham, who occupies the position of treasurer; but there is more than that—a personality that means a successful show in a great business city.

NEW DAFFODILS AT BIRMINGHAM.

I WILL first of all give a list, with a short description, of all the varieties that received official recognition before I pick out some of the flowers that, either for their peculiar beauty or their novelty, claim particular attention. It is, perhaps, as well to state the conditions which must be observed at Birmingham before either a first-class certificate or an award of merit is given. To qualify for either, two-thirds of the judges voting must be in its favour, and in the case of a first-class certificate six stems must be shown, and for an award of merit three.

FIRST-CLASS CERTIFICATES.

Great Warley.—This is a very large bicolor incomparabilis, and when well grown and fully developed is certainly one of the largest, if not the largest, of its class. The perianth segments are a pure white, but somewhat inclined to become a little floppy. The cup is really a short trumpet—bold looking, but possibly wanting in refinement. It is a deep yellow in colour.

Homespun.—No description of this most refined yellow incomparabilis is needed. I can only say that for the show table it is an absolute necessity in any first-rate representative collection, however small.

Queen of the West is a very large and, if one may judge from the length of the stem, tall-growing long trumpet of the beautiful Captain Nelson shade of yellow. The weak part of the flower is its perianth, which is too loose and untidy-looking for it ever to become a show table variety. Its great value lies in its suitability for market and for cutting.

AWARDS OF MERIT.

Bedouin, which I remember seeing last year on Messrs. Barr and Sons' stand at one of the last meetings at Vincent Square, is a remarkably fine incomparabilis. It has a large white perianth, broad and spreading, with a widely expanded cup of a rich orange red, and may be called a much-improved Crown Prince.

Cossack is a flower of the Barri type, with a much-expanded cup of intense deep orange red and a reflexed solid white perianth.

Giraffe is a valuable flower, because there are not very many all-yellow incomparabilises. For some reason raisers have not done much in this direction, and so a fine large flower, even if its perianth is not all that one could wish, is a decided acquisition.

Red and Gold marks a distinct advance in highly coloured doubles and is, I fancy, one of Mr. F. W. M. Copeland's seedlings. It is a loosely-put-together flower, with, as its name implies, deep yellow petals and the red, split-up corona peeping up between them.

Red Chief is notable because of the crinkled and uneven deep red edge to its cup. It is of the Engleheartii-Burbidgei type.

Saint George is a very pretty flower of the Burbidgei type, with a solid, cream-coloured perianth and a well-formed red cup.

Scarlet Gem belongs to the small but important ection of Poetaz. It is the only one with a red up, and if its constitution is as good as that of ll the others, it will be a very valuable addition o this group.

White Slave may be called an improved White Lady by those who like a flatter and a larger cup han we get in that sterling variety. Personally t does not very much appeal to me, as I like the maller and what is almost now the more uncommon cup of the older flower.

Royal Horticultural Society's Award of Merit.

Lowdham Beauty, raised by Messrs. Pearson nd Sons, was singled out by the Royal Horticultural Society's deputation for an award. As know it both on the show table and as a growing plant, I can say it fully deserves the honour. White Queen is not altogether a garden lower on account of its short stem. Lowdham Beauty is of the same type, but of a much more obust habit of growth, and when plentiful will become a popular variety. It has a long, lightooking frilled cup or short trumpet of a delicate ochre yellow tone. It is not one of the largest Giant Leedsiis, but I do not think there is one hat is more elegant.

Some Good Novelties.

There were not many very striking new varieies this year. This may be accounted for partly by the absence of Mr. Engleheart on account of ll-health and partly because of the late season, which caused everyone's blooms to be much later han usual. The following are some of the very best and most distinctive. The name after the variety denotes the person in whose collection or group the flower was exhibited.

White Star (J. C. Williams).—Probably the most beautiful novelty in the whole show. It is large incomparabilis, with long, incurving and overlapping perianth segments of a solid white, with a well-proportioned soft yellow cup. It is well named, for it has a beautiful star-like appearance.

Pixie (Crosfield).—A perfectly symmetrical florist's flower; in fact, almost too regular in its build and marking. It has broad, round, overapping perianth segments of ivory white, with deep orange-coloured cup, sharply edged red.

Ivorine (P. D. Williams) is a round-petalled, graceful Leedsii, with a shallow yellow cup. The perianth is inclined to recurve.

Phantasy (Crosfield).—A magnificent white large trumpet. This variety has a perianth with good square shoulder, and generally is to be found "there or thereabouts" when exhibited in single bloom classes.

Tennyson (Dawson).—A very fine Poet. It may be described as a very large Almira. Those who like the graceful curves in the perianth of this latter variety will want to grow Tennyson.

Pedestal (Crosfield).—There are not many regular-shaped bicolor incomparabilises suitable for the show table. This new variety is one of the best.

Hypatia (Dawson).—A real show flower, which is characterised by a round, overlapping white perianth and a wide cup, which appears to be crinkled from the edge inwards and coloured yellow, rayed with yellow ochre.

Lavender (Dawson) was shown last year at Birmingham for the first time. The perianth is weak and thin, and the distinctiveness of the flower consists in its beautiful white cup, which is a centre of the palest emerald green and is edged with a band of shrimp pink. There is no other Daffodil at all like it.

Hot Shot (Crosfield).—A small flower with a wilder cup than Firebrand and a well-shaped pale yellow perianth, which reminds one of that of Sprod Orange.

Heroine (Cartwright and Goodwin).—A fine effective flower. An improved Albatross.

Beth (Douglas).—A shapely Giant Leedsii. The perianth is what, for want of a better term, may be called shouldered. This gives the whole flower a claw-like look.

Judge Bird (Sir J. Gore-Booth). A very large Empress with pointed segments. It is a fine garden plant.

Joseph Jacob.

THE FRUIT GARDEN.

HOW TO GROW FRUIT TREES IN POTS.

(Continued from page 202.)

WHEN the Figs are not repotted (we make an exception in not potting these every season, preferring to do it in alternate years) the top-dressing is carefully removed, but not the roots. Some of the surface soil is then taken away and these roots laid out and fresh soil added thereon. I consider the process of top-dressing has an important bearing upon the fertility of the trees for the coming season.

Manures.

We begin to apply occasional stimulants when it is seen that the fruits are fairly on the move, say, when they are of the size of small Nuts. In our case this season the earliest trees have just had a top-dressing of ground lime (March 1), applied by means of the thumb and two fingers, one application to each pot only. The same amount of an artificial compound will be applied in about a week's time. For this purpose there are several manures prepared by various firms of repute and good business standing that may be advantageously used. In every case note the per cent. of the component parts; if this be given fully, it is well; if not, and in an evasive manner, avoid them. A good and reliable artificial manure for stone fruits should consist of phosphates, soluble, 10 per cent.; insoluble, 25 per cent.; of potash, 2½ to 3 per cent.; and of ammonia, 5 per cent. We alternate an artificial with a liquid manure made from horse or cow manure, with soot added thereto. This is kept prepared in a large tub, the soot being first put into a stout bag and placed in the bottom. The clear water only is used; it is foolish to think of stirring up the mixture previous to using, as if that would be more efficacious. As regards artificial manures, it is necessary to give a word of caution. Frequently they are applied with too free a hand, and the object in view is defeated by an opposite effect. Anyone who is at all conversant with medicine will know that this same effect often results by too frequent or too heavy doses. As the fruits begin to colour, water is given more carefully and all stimulants are then withheld.

After-Treatment Under Glass in Watering, &c.

After the crop is gathered the trees are freely syringed two or three times daily and watered also somewhat liberally. If any check occurs at this time the trees may become subject to red spider and also, what is most important for another season, an imperfect development of the flower buds. Occasional applications of liquid and artificial manures are still given for a time until the growth is well perfected. As regards temperatures and ventilation during forcing, no variation, or but little, from the usual course pursued is made. The syringe is used freely when the weather is fine, and damping down between the trees and pots is practised. Do not, however, let the atmospheric conditions become too humid when a few dull or sunless days may at times supervene. If this be the case when the fruit begins to swell, it will foster the wood growth rather than that of the fruits. By keeping the house too close at such times it is also easy to bring about these same results.

When the forcing is commenced, or at least when the house is closed for that purpose, the syringe is plied pretty freely, but not sufficiently to make the soil too wet upon the surface. For the first-early house, which is closed on or about December 1, we do not for at least three weeks allow any fire-heat. When we do permit a trifle of warmth in the pipes the temperature is not at once raised to what is recognised as the standard night temperature, viz., 50° Fahr. or thereabouts. We keep it a few degrees lower and do not at all mind if the morning reading of the thermometer indicates 40° or even less if frosty. I would much prefer to raise it more during daylight than is usually practised; thus the average or mean temperature would be about the same as in most cases. My object for doing this is merely to imitate a little more than is usually done the conditions that ensue in the home of most of these fruits, where during the day the sun is warm and where during the night it may and does fall nearly to freezing point. When in flower the night temperature, if cold and frosty outside, is kept at about 50°; if mild, a few degrees more, say 55°, but then there should be a little ventilation in my opinion. Gradual increases are made when the fruits are set and begin to swell away freely, until it touches 60° at the time of banking up the fires. During the day the increase is in proportion, ventilating in favourable weather both at the top and bottom, and closing early when the conditions are favourable. When Cardinal Nectarine is about half coloured and still firm, it is disposed to crack if the syringe is used too freely in the afternoon so that at nightfall the trees still retain any moisture upon them. It is also wiser to be somewhat careful in respect to the watering at such times.

In the treatment of Cherries in pots, great care has to be exercised in the temperatures, also in the ventilation. It may be taken as a rule, however, that 5° less than for Nectarines, Plums and Peaches is a safe line to follow, both as regards night and day temperatures. The Cherry house should also be ventilated more freely, especially up to the time of colouring and when there is no further danger of dropping. The panes of glass in our case are large; hence when the sun shines brightly it is rather trying to the Cherry trees. At such times and after the fruit is set we run a thin blind over the roof just for the brightest times. This same blind is also very useful when the fruit is ripe and it has to be kept hanging for a few days.

James Hudson, V.M.H.

(To be continued.)

THE FLOWER GARDEN.

SWEET PEA CHAT.

ENEMIES. — Although the Queen of Annuals has not as many enemies as several of the general occupants of our gardens, those which do come to the attack are foes which are well worthy of our steel, and it is only growers who get in a first and very powerful blow who can be sure of coming out victorious from the fight. No matter what the pest may be, the thing to do is to attack early, and never to cease the efforts until the last enemy has been destroyed. The greatest nuisances are slugs, birds and green fly, and just which is the worst depends largely on seasons and circumstances. Let us glance at each.

Slugs.—These, of course, do the greatest harm during the time that the plants are in the seedling stage, but they are such persistent attackers that it is impossible for them to be ignored at any period. There are several excellent preparations now on the market and advertised in the columns of The Garden which will clear the pests out, provided they are used strictly according to the directions of the vendors; failures are sometimes recorded against them, but in

nearly all instances the cause is neglect to follow instructions, and is not due to any fault of the material itself. These I have proved to be superior to soot or lime or both, and strongly advocate their use, and their good effect should be supplemented by hunting with a light during the evening, when many can be destroyed in a short time.

BIRDS.—When the plants are quite young one can easily keep the birds at bay by the free use of strong black thread, with which a perfect network is formed over the rows, or by the utilisation of one of the special guards that can be cheaply procured from the horticultural sundriesman, so we need not further discuss them at that stage. What has always beaten me is to prevent the nipping off of the buds, in which the sparrow appears to take as keen a delight as he does when he is directing his energetic, though misdirected, attentions to the yellow Crocuses in spring. Scarers of various forms have been tried and found wanting, for the birds are not long before they become so friendly with them that they use them as resting-places from their arduous labours. If any fellow-reader and enthusiast can put me on the right road in this matter I shall be most grateful. I may say that I have tried flappers of various materials, reflecting glasses, the tails of kites and dummies in new and old clothes, with the same unsatisfactory results.

GREEN FLY.—This is undoubtedly one of the worst enemies of the Sweet Pea-grower, for, unless he is most keenly on the alert, by the time he discovers the attack there are a few hundreds of thousands of enemies on the plants sucking out their juices and positively defying any ordinary methods of extirpation. The pinch of snuff or slight dusting with Tobacco powder, which answers so admirably when there are only one or two pests present, is practically useless when they have made themselves at home on the plants, and nothing short of drastic remedies will suffice. The point for the grower to particularly observe is to keep such close watch at all seasons that when the first green fly comes it is instantly killed, when little, if any, real trouble will be experienced. If, however, the pest gets established, let prompt steps be taken to apply one of the many excellent insecticides that are offered ready for use, or make up a mixture at home, and if, in either event, one application does not effect a riddance, follow with one, two or three others, as may be necessary, to complete a perfect operation. As a home-compounded solution, one of the simplest and, at the same time, most effectual is made of 3oz. each of quassia and soft soap (both boiled), a wineglassful of paraffin and a gallon of water. To ensure amalgamation of the oil with the water add it when the latter is furiously boiling, but after the pan containing it has been removed from the fire. The dressing is best applied through a small spraying syringe throwing a very fine film of solution, which will stick to anything that it reaches. SPENCER.

BROOMS FOR THE ROCK GARDEN.

THE Brooms are general favourites in the garden, for all are distinctly ornamental, rarely fail to produce a full crop of flowers and are easily cultivated. The tall-growing ones are possibly the best known, though they are no more beautiful in their respective positions than the dwarf or prostrate growing sorts are in theirs. These dwarf-growing varieties are useful for several purposes, such as a groundwork for beds of taller-growing subjects, for covering dry banks, or for grouping on rockwork or rooteries. For the latter purpose they are peculiarly adapted and always give a good account of themselves. All are of easy cultivation, and give little trouble when once established. They thrive best in light loam, but are not very fastidious regarding soil. Some may be increased by means of seeds and others from cuttings of semi-ripe shoots placed in sandy soil in a cold frame in August.

With a few exceptions, to which attention is directed later, very little in the way of pruning is required other than the removal of the flower-heads before seeds are able to form. As a rule they are not long-lived plants, and as soon as they have passed their best, which may be at the age of eight or ten years, they should be destroyed and a fresh start made with young plants. Young, vigorous plants are always the most satisfactory, and, as all can be easily increased, it is a mistake to keep plants too long. The prostrate-growing sorts are excellent for placing in positions where the branches can trail over rocks or roots, the long streamers during the flowering period being perfectly covered with bloom. Of suitable sorts, some are good species, others selected varieties and a few hybrids.

Taking the latter, we find that the dwarf ones are few in number. The two best are Cytisus kewensis and C. Beanii. Both are natural hybrids which originated at Kew, the female parent in both instances being the pretty alpine species, C. Ardoinii. C. kewensis forms long, prostrate branches sparingly clothed with three-parted leaves, and during May with an abundance of creamy white flowers. The second parent is considered to be C. albus. An idea of the habit and floriferous character of C. kewensis may be gleaned from the illustration on page 228. C. Beanii differs from the last named by forming somewhat shorter growths, which rise rather higher from the ground, and by its golden flowers. It blooms with great freedom, and is likely to become an extremely popular garden plant. The male parent of this hybrid is thought to be C. purgans. Both plants may be seen at Kew on the rockery, and they are also used as a carpet for beds of other shrubs. A third dwarf hybrid is also grown at Kew. This approaches C. Beanii in appearance, the colour being similar, but the habit is different; the shoots are shorter and the plant taller. A hybrid known as C. versicolor is mentioned with C. purpureus.

Glancing from the hybrids to the species, we find the female parent of the above-mentioned sorts (C. Ardoinii) a most estimable plant. It is a native of the Maritime Alps, and grows but a few inches high. It, however, blossoms freely in May and forms a beautiful golden mass. C. decumbens is another prostrate grower, which rises scarcely a couple of inches above the ground, except when in bloom in May. At that period short racemes are borne which cover the ground with a mantle of gold. A distinct contrast to the last named is found in C. leucanthus. This is a little-known plant from the Balkan States, rather more leafy than the majority of Brooms, and bears rounded heads of white or cream flowers towards the end of May. It is an excellent rockery plant, though in some commercial establishments it is rarely met with except grafted on stems of Laburnum 2 feet or 3 feet high, when it develops large umbrella-like heads. It has been known by several names, two fairly well-known ones being frivaldskyanus and schipkænsis.

The Purple-flowered Broom (C. purpureus) is a delightful plant when seen at its best. A

A VIEW OF A PORTION OF THE BEAUTIFUL DAFFODIL SHOW AT BIRMINGHAM (MR. PETER BARR, V.M.H., AND MR. E. M. CROSFIELD ARE IN THE FOREGROUND).

ative of Eastern Europe, it grows to a height of rom 12 inches to 18 inches, with long, arching ranches, which, towards the end of May, are lothed with beautiful purplish blossoms. This pecies is one that requires a little attention from he pruner. If, as soon as the flowers are over, he old growths are removed to where young ones re starting from, far more satisfactory results vill be obtained the following year than if no runing had been done. C. versicolor is by some onsidered to be of hybrid origin, with C. urpureus as the female parent. The flowers are aler coloured than are those of the last named.

In addition to the various Cytisuses, several enistas have to be taken into consideration when ealing with the dwarf Brooms. G. hispanica the Spanish Gorse) is a decidedly worthy lant for a bold mass towards the top of a rockery here it will obtain plenty of sun. It is also ell adapted for planting on bare banks in a ght and open position. Do not plant thickly, as ach plant ought to be able to develop without rowding its neighbour. Under favourable conitions it grows 1½ feet to 2 feet high, and ach plant during part of May and June epresents a golden globe. G. dalmatica may ptly be described as a miniature Spanish Gorse, or it is similar in every respect except that it arely exceeds a few inches in height. G. orrida is an intensely spiny plant from Southern rance and Spain. Though interesting, it is less eautiful than many of the others. Another ighly decorative plant is found in G. pilosa. his forms a wide-spreading bush 1½ feet high, hich bears golden flowers freely. A dwarf orm of it is known under the name of prostrata. . sagittalis is distinct from everything else by eason of its winged stems. The flowers are in pright racemes and are golden in colour. A ouble-flowered form of the Dyer's Greenweed (G. inctoria flore-pleno) concludes our list. Though his is a very floriferous plant and gorgeous hen in bloom, it has a serious defect, for it is requently attacked by a grey aphis in summer nd becomes unsightly. By making a selection f the above-mentioned plants, anyone might ave very showy groups or masses which would ot fail to be greatly admired. W. D.

DAFFODILS IN GRASS.

HE Daffodil, although largely grown in beds and orders, is seen to much greater advantage in the ild garden. Amid the natural surroundings f trees and shrubs, skirting the edges of woodnd walks, on the outer edges of the lawn, or rouped naturally along a grass vista as seen in he illustration, the effect is much more pleasing han when grown in formal beds like so many enned-up sheep. Daffodil-time at Kew, when he woods are aglow with thousands of blossoms odding in the breeze and the deciduous trees e pushing into leaf, is by many frequenters of e Gardens considered the best time of the hole year.

Natural planting is difficult to many, the ndency being to plant in lines or formal masses. ature, in her arrangement of our wild flowers, ould be copied as far as possible. In small rdens it is difficult to do any wild gardening; t the outer fringe of the lawn bordering the rubbery can sometimes be given over in spring Daffodils, the grass not being mown till they e down in June.

Among the many varieties grown, the older d cheaper sorts are quite equal, if not prefere, to the high-priced sorts for the wild garden. e common double Daffodil (Telamonius plenus), hich is shown in the illustration, is unsurpassed planting in the grass, and is especially ective at a distance. It is also one of the rliest to bloom, opening almost as early as N. llidus præcox and the Tenby Daffodil (N. vallaris). Excellent varieties for the wild rden to follow the three named are Emperor, mpress, Sir Watkin and Johnstoni Queen of ain. A. O.

THE GREENHOUSE.

THE SMALL GREENHOUSE FOR PLEASURE AND PROFIT.

(Continued from page 213.)

THE FUCHSIA.—This is ever a favourite with the amateur, and there is no plant more easily cultivated. As already pointed out, the plants may be stored beneath the stage in winter-time, to be brought forth in February for pruning and growing on for summer flowering. When first brought from their winter quarters the plants should be well pruned back, cutting away all thin and poor shoots and leaving only a few quite strong ones. These old shoots will break into new growth in a short time, and for ten days after pruning no water must be given at all. When the new shoots are in sight the plants may be repotted, shaking away a portion of the old soil during the operation, so that the new roots may have the benefit of new soil. Fresh turfy loam, leaf-mould and sand, with a fourth part manure, will prove a suitable mixture of soils for repotting the plants, and the potting must be firmly done. Water must be given sparingly till the plants are in full growth. A similar mixture of soil will do for Zonal and Ivy-leaved Pelargoniums (Geraniums), all of which may now be taken in hand at the same time and prepared for their summer flowering.

Tuberous Begonias.—As a summer-flowering plant in such a greenhouse as that specified the Begonia is superb, and at any moment from the middle of January the plants may be started into new growth. By "starting" is meant that the old tubers may be knocked out of the pots, divested of about half the soil from their roots, and potted into clean pots of fresh soil, that composed of peat, loam, leaf-soil and sand in about equal parts being the best. Repot the plants so that the top or crown of the old tuber, or bulb, as some may call it, is covered by half an inch of soil. Work the soil carefully and well around and below the tuber, and if the soil be moderately moist give no water for a few days. For some time after potting the plants may stand close together, giving them full room when this is available. For all the above-named crops a temperature ranging between 50° and 60° will do quite well during winter and early spring, that of 50° being ample during the colder weather. During summer an increase by sunheat will assuredly result.

We have seen what may be grown, both of fruit and flowers, for the summer months, and now briefly we may look at what is best for the winter season. Of these some important plants are Chrysanthemums, Zonal Pelargoniums and Carnations.

Chrysanthemums.—For obtaining autumn and winter flowers of these cuttings should be rooted from January to March, potted into small pots and subsequently into pots 8 inches or 9 inches across for flowering. Good rich soil is necessary for these plants, and it is most important that the young specimens receive no check at any time and be grown on quickly. Fresh cuttings will root easily in sandy soil, and when rooted the young plants should be potted and placed in a cold frame. Artificial heat is weakening to the plants and should not be applied.

Zonal Pelargoniums.—There are no winter-flowering subjects more showy or beautiful than these, nor more simple in their cultural requirements provided a few details are followed. A chief item is that the cuttings be rooted in spring, potted singly into small pots and in early June repotted into 5-inch or 6-inch pots, in which size they are to flower. In June, when the last-named potting is done, the plants must be put outside in a sunny spot and all flower-spikes removed as they appear to the end of August. The points of all shoots should be removed in early July and in August to create a bushy growth, and careful watering must be attended to. Late in August or during September the plants may be removed to a cold frame—for such a frame should always exist as an adjunct to the greenhouse—or to the greenhouse if the latter is at liberty. It is more than likely it will not be if the rotation of crops given is adhered to. Rather poor soil should always be employed for these Pelargoniums by reason of its tendency to promote a firm growth, which in these plants is so very necessary to flowering. A few dozen trusses of these Pelargoniums in winter-time make a most attractive display.

The Winter Carnations.—We have nothing more valuable than these, nothing in which the amateur prides himself so much when he is able to do full justice to the plants. To secure success and a succession of bloom, cuttings must be rooted from January to the end of March, the young plants potted as soon as rooted into small pots and from these into larger pots in quick succession, say, at intervals of a month or so. The points of the shoots should be twice or thrice removed, but stopping must not be done after mid-July. By the end of May the strongest plants should be in their flowering pots, and these should be not less than 6 inches or 7 inches in diameter. The other plants must be potted as required, but the potting should be concluded by the end of June. Loamy soil, not too light, leaf

NARCISSUS TELAMONIUS PLENUS IN THE GRASS IN THE ROYAL GARDENS, KEW.

mould, old manure to about one-fourth and a like amount of sharp sand, with a 6-inch potful of bone-meal to each two bushels of the soil, will make an ideal mixture. Moderately firm potting is very necessary, and very careful watering in all stages of growth. Larger pots than those named may be used with freer drainage. Many of the newer Carnations, by reason of their vigour of growth, require more liberal treatment. Staking and tying must be duly attended to and the plants housed in early September. In this way, and by growing the crops I have named, it is possible to garden on a varied scale in a comparatively small way, and to realise that a garden and a greenhouse may be not only a source of pleasure, but of profit also.

Hampton Hill. E. H. JENKINS.

SUMMER TREATMENT OF WINTER-FLOWERING HARD-WOODED PLANTS.

WHAT the professional or amateur gardener would do without the aid of flowering hard-wooded subjects for the decoration of room, corridor or conservatory during the winter and early spring months it is hard to imagine; therefore it behoves him to devote a little special attention to those plants that have already served him so well. The group comprises several kinds, of which the following are chiefly met with: Azaleas (both Indian and American), Rhododendrons, Deutzias, Lilacs, Ericas, Camellias and Genistas. Whether they are forced into flower early or allowed to come along gradually, their after-treatment must be the same. In all the subjects above-mentioned young growth follows immediately after flowering, and at this period it is essential to future success that this new growth receive all the encouragement obtainable, so that next season's flowers are as much a certainty as the one just past. To place the plants in a cold house or frame immediately after the flowers are over, as is often done, serves no other purpose than to give them a severe check, from which it takes them weeks and sometimes months to recover, and in some instances absolute ruin follows. It is best to try to give these plants the benefit of a warm vinery or other heated structure, so that these new growths may proceed without interruption until the weather is sufficiently genial for them to be placed outdoors, which, usually, is not until about the beginning of June.

Any repotting that is required should be done as soon as the flowers have faded, so that the plants may have the earliest opportunity of acquiring new food and the longest possible period of enjoying it, and that the new growths may be sturdily grown and duly ripened. Any pruning the plants may require should also be attended to at the time of repotting, as most of them depend on the new growths for the next show of bloom. Azaleas may generally be kept in good shape by tying in any growths given to straggle, and in the case of some of the more vigorous-growing Mollis varieties, a sharp bend in a long growth will frequently induce the plants to break back, which is better than sacrificing lengths of good wood to obtain the same end. All seed vessels should be picked or cut off as soon as the flowers are over, as any that by chance may have become fertilised will make a further extra demand on the resources of the plant.

From the middle of May to early June a gradual hardening process should be introduced, at the end of which, weather conditions being favourable, the whole group may be stood outside. Here, again, many make the mistake of placing the plants in total shade, under the erroneous idea that because they require less attention from the watering-can and syringe the plants do better. Many years of practice have convinced the writer that placing plants of this class under a wall with an eastern aspect, or in full sun if provision can be made for plunging the pots up to their rims in coal-ashes, is conducive to better growth and ultimate success. True, both syringe and watering-can are in more frequent demand, but the thorough ripening of the new wood, which is of supreme importance to future successful flowering, more than compensates for the little extra trouble entailed by the latter method. A weekly watering with weak liquid manure from July to the end of September is of great benefit to the newly formed wood, helping to plump up the flower-buds. Thrips and red spider may be kept down by the use of the syringe or garden engine charged with clear soft water, especially if used towards the evening after the hot sun has ceased to shine on the plants. Azaleas of the Indian species and Genistas should be taken indoors by the end of September. The hardy Azaleas and Heaths, Deutzias, Laurels and Camellias may stay outside till towards the end of October, when they may be placed in a cold pit, or the Camellias may at once be taken to the greenhouse or conservatory if they are too large for ordinary pits. Hard-wooded plants pay well for good cultivation, and if they are to be forced into flower early it is of vital importance that the wood be well matured as early in the season as possible.

MIDLAND.

CYTISUS KEWENSIS IN THE ROCK GARDEN AT KEW. (*See page 226.*)

COLOURED PLATE.

PLATE 1373.

CARNATION QUEEN OF SPAIN.

A YELLOW Perpetual-flowering Carnation has long been sought after by growers of these plants, and we have therefore great pleasure in presenting a coloured plate of the new variety Queen of Spain. This was raised by Messrs. Backhouse and Sons of York, to whom we are indebted for the blooms from which the plate was prepared. As will be seen, the flowers are of splendid form, possessing good depth, and they are borne on good, stout stems. The habit of the plant is vigorous and robust, those we saw growing in the firm's nursery last summer being exceedingly healthy.

THE KITCHEN GARDEN.

HOW TO GROW TOMATOES OUTDOORS.

EVERY year the culture of Tomatoes in the open is attempted by thousands of growers in this country, and their efforts are generally crowned with more or less success. That these plants can be successfully grown outdoors in this country has been proved over and over again; but the crop of fruit will depend chiefly on three things, viz., weather, the condition of the plants when put out and the varieties chosen. Of course, there are other important details to be observed, but the points above enumerated are of supreme importance.

Without an average amount of sunshine it is certain that the work will be doomed to partial or total failure, but given this, we are well on the road to success. The condition of the plants when placed in their permanent quarters is of even greater importance, because, if too small or stunted, no amount of sunshine will induce them to produce good fruits. An ideal plant is one that is short-jointed and bearing robust foliage, with two or three small green fruits present. Failing these fruits, flowers at least should be visible. Except in very favoured localities and situations, plants more backward than such as those described will scarcely pay for planting out.

Leaving the question of varieties for the time being, we will now turn our attention to the preparation of the soil and the putting out of the plants. With amateurs, it is safe to say that the majority of Tomato plants are ruined, so far, at least, as fruiting is concerned, by planting them in soil which is too rich, with the result that foliage is produced at the expense of fruits. The soil for Tomatoes should have been well manured for the previous crop, and then deep digging will be the only preparation needed. Where, however, such is not available, a moderate dressing of partially or wholly decayed manure may be

dug in. As regards texture, a good, workable loam that is well drained may be regarded as ideal. Naturally the warmest site available in the garden should be chosen for this crop, a border sheltered from north and east winds being the most suitable.

Planting out cannot be done with absolute safety until the last week in May or the first week in June; but previous to this the plants should have been fully exposed during the daytime for at least three weeks. The distance apart to plant will vary a little according to the variety, but rows 4 feet apart and the plants 2 feet asunder is a good distance to observe. The soil should be made moderately firm around the ball of earth and roots, and a slight depression or pan should be left round each plant, as this will greatly facilitate watering, which will be needed as soon as the plants are put in and also at frequent intervals during dry weather, when growth is active. Stakes, too, must be placed to the plants directly they are put out, the stems being lightly tied to these with broad strands of raffia.

After-treatment of the plants will consist in watering during dry weather as stated above, keeping down all weeds and, most important of all, the pinching out of all side-shoots as quickly as they appear, thus keeping the plant to one stem. During dry weather if a mulching of short, thoroughly rotted manure can be placed over the roots it will be of considerable benefit to the plants. The question of feeding Tomatoes is a rather vexed one, and it is certain that unless it is carefully and intelligently carried out more harm than good will be done. It must not be attempted until several clusters of fruit are set and commencing to swell; then a watering once in ten days with 1oz. of superphosphate and half an ounce of nitrate of potash dissolved in two gallons of water will assist the swelling and colouring of the fruit. When four bunches of fruit have been set it is advisable to pinch out the top of the plant, and late in the season those leaves which hang directly in front of the fruits may also be taken away. The wholesale removal of foliage, however, must not be attempted. As regards varieties there is certain to be a diversity of opinion, but the following are all reliable and worth growing: Sutton's Earliest of All, Sutton's Open Air, Early Market, Carter's Sunrise and Outdoor. K.

THE ROSE GARDEN.

ROSE WHITE KILLARNEY.

THIS is a large and beautiful, pure white sport from the old favourite Killarney, and originated in America, where it is already being used extensively for forcing purposes. Owing to the enterprise of Messrs. Hugh Low and Co. of Enfield visitors to the Royal Horticultural Society's meeting on the 20th ult. were able to see blooms of it, these arriving with their traveller, however, just too late for the committee to see. The flowers are considerably larger than those of the type, and also much fuller, being of great depth and somewhat conical in shape. The stems are long and very stout, the deep green foliage being also of a very robust character. We think there is a great future in store for this latest addition to the great race of Hybrid Teas.

THE NEW ROSE WHITE KILLARNEY

(Natural size.)

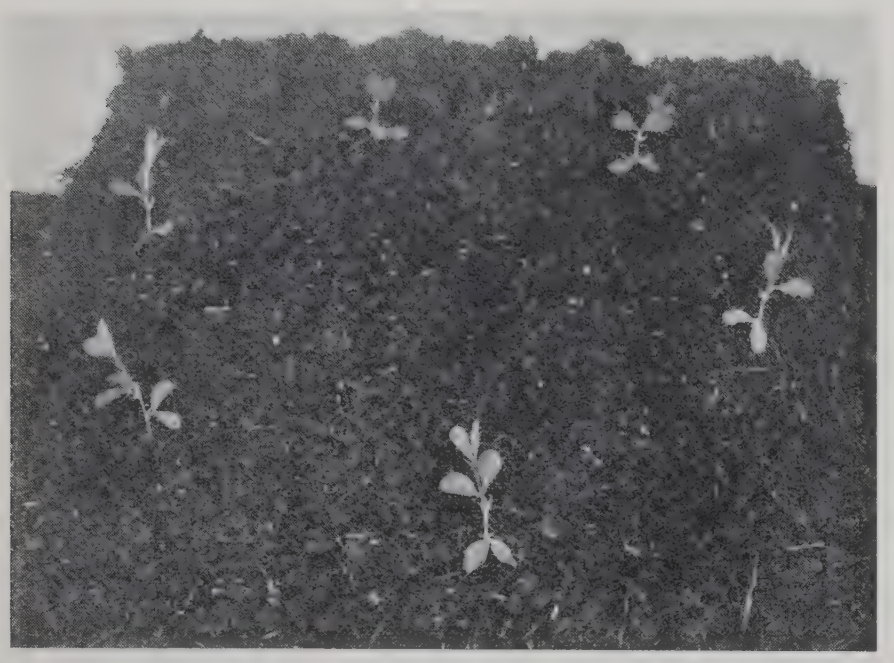
ROSE PARADISE.

MR. M. H. WALSH of Wood's Hole, Massachusetts, may be looked upon as the most successful raiser of rambler Roses, for his productions are among the foremost that are prized by planters. To name a few, there is Lady Gay, Hiawatha, Minnehaha, Débutante, Sweetheart, Evangeline, Delight, Babette, Wedding Bells and the variety named Paradise. This surely is a grand group, and I only hope Mr. Walsh will continue to produce distinct and equally charming sorts. That Paradise will become very popular I have not the least doubt. I know of no Rose of such quaint beauty, every little pink and white flower resembling a Maltese cross, excepting that there are five divisions instead of four. The sprays are large and elegant, enabling the floral artist to use them with very telling effect, and, moreover, they are so very durable. As most growers are aware, there are two distinct groups of the wichuraiana Roses, those that favour the Tea Roses and produce their blooms from one to five in a cluster, and those that resemble the type and have long trails of bloom. Of the two groups, Paradise resembles the latter. It cannot fail to make a delightful weeping specimen, for its growths are very slender, and to grow as a free-headed standard one could have nothing prettier. P.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—The present is a very busy time in this department, as there will always be plenty to do. The final staking of Sweet Peas will now or shortly need to be done; take care to thrust the sticks well into the ground and leave the tops somewhat open. The plants should be induced to climb outside the supports. Where thinning the annuals is being performed as advised last week, it frequently happens that blank spaces occur, and it is often easy enough to transplant some of the seedlings to those positions, especially when the soil is damp as a result of recent rains. The present is a good time to plant out Hollyhocks, and where these old-fashioned flowers are appreciated a few should be put in. Most nurserymen supply plants suitable for insertion at the present time. Cottage and Darwin Tulips are now opening their flowers, and where the position is much exposed to strong winds it is probable that supports in the form of thin stakes will be needed; this must, however, be done with care so as to avoid an artificial look in either beds or clumps. Attend to the training and tying of Clematises, which are now growing away freely; if left long the growths become entwined, and it is then very difficult to deal with them satisfactorily. All narrow borders running alongside buildings, walls or close fences should be given a thorough soaking with water about every ten days, whether rain falls or not, as usually owing to their position such borders derive but little benefit from rains. Prepare the stations for Dahlias at once. Take out a hole for each plant 1 foot in diameter and the same in depth; then in the bottom place about 4 inches of partially decayed manure and fork this well into the soil at the bottom of the hole, and then fill in with other soil to within 2 inches of the surface. The present is a good time to mulch Roses with short manure, Wakeley's Hop Manure answering splendidly for the purpose.



1.—THE PROPER WAY TO PLANT SWEET PEAS IN CLUMPS. THE CLUMP OR CIRCLE SHOULD BE ABOUT 2 FEET IN DIAMETER.

Vegetable Garden.—Those who like Spinach during the hot days of summer, and who have a difficulty in growing the ordinary varieties, should now sow a few seeds of the New Zealand Spinach. These quickly grow and form large, spreading plants, from which supplies can be gathered until frosts occur in the autumn. Sow in rows 4 feet apart, and thin the seedlings to 9 inches asunder. The earliest sown greens, such as Cauliflowers, Cabbages and Brussels Sprouts, will now be ready for planting out, and the work should be done, if possible, during showery weather. The distance apart to plant will vary according as the varieties are naturally large or small, but overcrowding must at all times be strictly avoided. Where Marrows have not been raised under glass, a few seeds may now be sown outdoors, preparing the beds for them as advised for Cucumbers last week. For small gardens the bush or non-trailing varieties are best; and where high quality is preferred to size, Sutton's Tender and True should be given a trial. Early sown crops, such as Carrots, will require thinning, and this work must not be long deferred. Run the hoe frequently between the rows of seedlings. Peas will need staking, and the advice given in regard to Sweet Peas answers equally well for these. Other sowings to maintain the supply may now be made.

Fruit Garden.—Attend to the pinching and tying down of Vine laterals, as advised a few weeks ago, and apply air early on bright mornings, so that the sun does not, in conjunction with condensed moisture, scald the foliage. The ventilators must, however, be opened so that draughts do not occur. Trees growing against walls outdoors will now call for frequent soakings with clear water, and after a crop of fruit has set and is swelling freely, weak liquid manure may be given about every ten days. Peaches and Nectarines should be gone over and the weakest and badly-placed shoots removed; do this every few days, removing a few shoots at a time, as this is much better than completing the task in one operation.

Greenhouse and Frames.—Where an early batch of Chinese Primulas and Cinerarias is desired, some seeds may now be sown in well-drained, shallow pans or boxes, using soil composed of loam two parts, leaf-soil or peat one part, with a good proportion of silver sand added. Pass the whole through a fine-meshed sieve and retain the rough portions for placing over the drainage, finishing with the fine material. Make the surface level and the whole moderately firm, and then scatter the seeds thinly and evenly, just covering them lightly with sand. Stand in the greenhouse or frame and cover with panes of glass or brown paper until germination has taken place. H.

PLANTING SWEET PEAS.

To grow these flowers well it is necessary that they should be planted in good soil, and when determining this the grower has to make up his mind which system of planting he will follow. Some prefer to plant their Sweet Peas in clumps of about half-a-dozen, others, again, prefer rows in which the plants are arranged on either side of the row in alternate fashion, while others are content to plant a single row. Frequently Sweet Peas are planted to form a kind of hedge or screen, in which case the results are distinctly beautiful. Assuming that the quarters intended for the reception of the young plants were carefully dug over during the winter season and a plentiful supply of good manure incorporated at the time, the soil will now be ready for planting. Those who have not taken this precaution must remedy this laxity at once by digging over the quarters intended for the plants. If they are to be put out in rows, it is necessary to dig out a trench some 18 inches in depth and to place in the bottom a good layer of thoroughly well-rotted manure. Horse-manure should be used in the case of soils of a heavy texture, and those of a light and porous character will be benefited by using well-rotted cow-manure, treading in this material and filling in the garden soil. In the case of planting in clumps it is by far the better plan to take out a good wide hole at each place in which the clump is to be planted, and as these clumps should be fully 2 feet across, it will be necessary to take out the soil 18 inches deep and 2 feet 6 inches wide. Fill in with manure and soil as advised for rows.

Now, in planting Sweet Peas in clumps it is customary to put four to six plants only in the space that should measure 2 feet in diameter. The plants should be arranged equidistant, so that ample space may be left for their development, otherwise the growths, when root action is vigorous a little later on, will become entangled and the beauty thereby lost.

Fig. 1 shows the method of planting in clumps; note that the young seedlings that have been well grown and carefully matured are arranged in proper order within the space allocated to them. All too often growers of Sweet Peas spoil their chances of success by planting them too close together. Fig. 2 shows the method usually adopted by the inexperienced. In this illustration will be seen the close grouping of the young plants. While they look promising when planted in this way, we have to remember that in the not distant future these same plants will be so intermixed that their growths will be, so to speak, throttled, and the chances of a successful

2.—THE WRONG METHOD OF PLANTING SWEET PEAS IN CLUMPS. THE PLANTS ARE TOO CROWDED.

3.—THE WAY SMALL, TWIGGY STICKS SHOULD BE INSERTED FOR THE EARLY SUPPORT OF THE PLANTS.

issue jeopardised, if not entirely lost. Frequently at this period plants may be purchased from the florist, and as many as twenty to fifty plants may be bought, all growing in one small pot. The tendency with the inexperienced is just to transfer these as a whole to the space made ready for their reception, in which case it is absolutely impossible for the plants to do justice to themselves. It is necessary to shake out the plants, divide them up individually and plant either in clumps or in rows, according to our requirements.

We will now turn to the first staking of the Sweet Peas planted in clumps. It is necessary that protection should be afforded the young plants immediately the tendrils are apparent, and short twiggy stakes should be inserted for their support. We invariably use the tops of growths of the Michaelmas Daisy, and find this is admirable material for the purpose. We show in Fig. 3 how these tops may be used for the support of the young Sweet Peas. It will be observed that the spriggy kind of growth is inserted between the plants, so that as the tendrils are emitted they have something on which to fasten immediately they need this support. It is a mistake to insert too many stakes, and if the rule advocated be followed, there is no reason whatever why these small branching stakes should not carry on the plants to the next staking, that is, the tall ones, which will be dealt with in a future issue.

In the case of plants required for rows, there is a tendency with inexperienced growers to sow or plant these too thickly; in consequence of this no really good results can reasonably be expected. Some growers prefer to plant out their Sweet Peas in one long continuous row, observing a distance varying from 6 inches to 15 inches between the plants, according to the vigour of the variety being dealt with. We prefer, when planting in rows, to put out our Sweet Peas in alternate fashion, as shown in Fig. 4. Here, it will be observed, the plants are arranged so that full advantage is taken of the space in the row; that is to say, the row is commenced with a plant on one side of it and succeeded by another on the opposite side at 6 inches or more removed from the first plant. This method of planting is persisted in throughout the row, so that as the plants make growth the stakes which are inserted for their support can be taken full advantage of, and the larger stakes which are placed in position at a later period are equally well utilised by the growths.

It is well to point out at this period that as the plants are shaken out of the pots the roots should be disturbed as little as possible. Endeavour, after separating the plants, to remove the soil and roots intact and place them in position straight away, after digging a hole with the trowel of sufficient depth to embed them satisfactorily, and with some firmness. Immediately after the planting out, it is a good plan to sprinkle round about the plants with soot, especially when the weather is moist, and this must be repeated at intervals, to prevent the attacks of slugs, which quickly denude the young plants of their foliage.

D. B. C.

SALIENT POINTS IN CUCUMBER CULTURE.

I WELL remember a sickly batch of young Cucumber plants growing, or at least making an effort to grow, in a low span-roofed glass structure which was well supplied with heating apparatus, and fuel in the form of coal slack was also there in plenty. The Cucumber plants, however, were very unsatisfactory, notwithstanding the useful appliances that were at hand to aid in their cultivation. Heat was not applied, though the summer season had not come. This was the cause of the failure, which was quickly remedied when the furnace glowed with hot coals once more. Now I know that many amateurs and others like to practise economy where the burning of fuel is concerned, but all-round economy does not always result. The best economy lies in growing these plants well. During cold weather and on dull days light the fire and heat the pipes. Draw out the ashes when the weather is very fine.

Frames.—Fire-heat cannot usually be applied there, but fresh linings of warm littery manure can, and coverings may be used at night. Watering must be done with great care, and air admitted without causing draughts to blow directly on the foliage.

SHAMROCK.

4.—A POPULAR AND USEFUL METHOD OF PLANTING SWEET PEAS IN ROWS, THE TWO ROWS SHOWN FORMING ONE WHEN GROWTH IS ADVANCED.

THE TOWN GARDEN.

BULBS FOR SUMMER BEDDING.—Liliums are very useful and ornamental plants for the flower garden in summer-time. Lilium auratum (the Golden-rayed Lily of Japan) heads the list as regards popularity; but there are others which are equally useful and quite as ornamental, and, moreover, do not cost as much as the first named. Small, low-priced bulbs of Lilium auratum, and, in fact, of all types, are never satisfactory. Such as Lilium rubrum, L. roseum, L. album and L. Melpomene are really splendid plants for the flower-beds in summer-time. The cultivator must very carefully attend to the bulbs at the present time; do not wait until the bedding-out season comes and then try to make good bulbs out of bad ones. By the end of May the plants ought to be quite strong. Grow them in flower-pots. Three-parts fill a 6-inch pot with equal parts of fibrous loam, leaf-soil and peat, with a free admixture of coarse sand, and then press down the bulb, just leaving the crown visible. Perhaps the bulbs have commenced to grow; the spike may be quite advanced and the roots prominent. In such a case it will be necessary to avoid breaking the roots; otherwise treat them exactly the same as if they were dormant bulbs. If any cultivator has bulbs now growing in boxes, they should be at once taken out and placed separately in 6-inch flower-pots. In due course the latter, containing the plants, will be plunged in the soil in the beds, so that the plants may root through the bottom of the pots as well as over the rims. If the bulbs are turned out of the pots and planted in the bed itself, they must be surrounded with some coarse sand; but in due course readers will be given more details about the planting of the bulbs and their after-treatment.

WATERING DRY BORDERS.—It may seem out of place, or out of season, to speak about watering dry borders; but notwithstanding the great amount of snow, rain and sleet that has fallen lately, there are many dry borders to be found, mainly those under walls where the climbing plants grow. There are many such borders in town gardens; they are usually very small too—that is, narrow and shallow and well filled with roots. No wonder, then, that they become dry soon. Examine the soil 1 foot below the surface, and if it is found rather dry, give the whole border a thorough soaking. I would mention here that it is advisable to give frequent applications of weak liquid manure to such borders later on, when the growth of the climbers is free. These plants are very beautiful, and if removed from the walls would leave the latter odd in appearance; but how seldom do they receive any attention as regards feeding with liquid manure? This can readily be made by immersing some stable or similar manure in a piece of old sacking in a tub of water.

STAKING PLANTS.—Hedge stakes are not easily obtained in towns, but Bamboo and ready-made stakes can be purchased from the horticultural sundriesmen, and no time must be lost in getting in a stock varying in length from 7 inches to 4 feet. The former and near sizes are useful for the support of pot plants and small border subjects, such as Carnations. The intermediate sizes are serviceable for all kinds of herbaceous plants and the tall ones for such plants as Dahlias and Hollyhocks. By all means have the stakes painted green; they then look better and last longer, and the following year the longest may be shortened, by cutting off the rotted portion which has been driven into the soil, and used again for dwarfer-growing subjects. Much skill may be displayed in the staking and tying up of various kinds of plants. Long stakes must not be placed to dwarf plants, nor very short ones to tall specimens, and great care must be taken not to make the flower-stems of the plants look like so many bundles of faggots tied up. The natural habit of each kind of plant must be retained.

AVON.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUITS UNDER GLASS.

VINES.—Look over these once or twice weekly and stop all lateral growths that are extending beyond one leaf, and those in later houses to one or two joints above where the bunches are showing. Keep pace with thinning of the berries when they have attained the size of Peas, being careful not to injure any of the berries which are to remain. Muscats coming into flower will need a night temperature of 70° to 75°, with, if possible, a chink of air. Shake the trellises two or three times daily in bright weather to distribute the pollen. Young Vines planted early in spring will now be growing away freely; attend to the tying of the leaders, removing tendrils and the stopping of laterals. Give the roots plenty of water and syringe overhead early in the afternoon with tepid water, but in dull weather less moisture is necessary, to prevent mildew. Vines which have been struck from eyes inserted in small pots and plunged in heat this spring should not be allowed to get their roots cramped before repotting takes place. Pot moderately firm and keep the Vines growing in a suitable temperature, so that they do not experience any check during these early stages of growth. Any inarching to be done should be taken in hand at once. The variety one wishes to substitute should be grown in a pot, and as soon as the young growth is large enough, stand the pot by the side of the one it is intended to replace and inarch on a similar young shoot, which should be as near the base as possible. See that the two cuts correspond, place them together and bind them with soft broad raffia, not too tightly, and cover a little moss round where the union is intended.

Cucumbers.—These will now be fruiting abundantly, but take care not to over-tax the plants. A regular and constant supply to meet the demand should be the aim. I usually thin rather freely till the plants have attained plenty of strength and then crop accordingly. Attend well to the stopping and thinning of the shoots; also remove a few of the larger leaves if necessary. Top-dress frequently with rather rough loam and well-decayed manure. Supply the roots at intervals with manure-water. Use the syringe freely well beneath the leaves, both to assist growth and prevent red spider. Those in frames should now grow freely. Attend to the thinning at intervals and avoid overcrowding and a severe thinning at one time. Be careful with ventilation.

PLANTS UNDER GLASS.

Poinsettias.—To obtain fine large heads the propagation should be done rather early. When the young shoots are about 4 inches long, if taken from the old plants with a heel and inserted in a sandy compost, stood in a close, warm frame and shaded from the sun, they will soon emit roots.

Climbers.—Keep all these neatly tied to their allotted positions, remove useless growths and decayed leaves, and attend well to the roots of those growing in narrow borders, both food and water being needed when the plants are growing freely, otherwise the growth will quickly assume a sickly appearance and become a prey to insect pests.

Tree Ferns, both planted out or growing in large tubs, will require copious supplies of water at this period. Avoid small driblets. The loss of large fronds—and sometimes the plants—might in some instances be traceable to dryness of the roots.

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Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

FRUITS UNDER GLASS.

VINES IN POTS.—These, where early started, are now well advanced, with the berries probably commencing to change colour. The water supply to the roots, which at all times requires good judgment, is more particularly in need of this at the present stage, too much being inimical to the health of the Vines and likely to cause the fruits to crack, while on the other hand a severe check arising from dryness would produce equally bad results. If manure-water has hitherto been given twice a week, this must be reduced in strength, or if the roots have got hold of the surface-dressing advised some weeks ago, it may be withheld altogether.

Vines Planted Out require very similar treatment, and as the roots exist under more natural conditions, the application of moisture, both to the border and in the atmosphere, may be still more severely reduced. With the increase of daylight and solar heat, growth becomes more rapid and the foliage assumes a greater degree of robustness. Care should be taken that the main leaves have room for development; hence all lateral shoots that form after an even spread of foliage is secured may be pinched at the first leaf or even removed entirely.

Insect Pests on Vines.—If mealy bug has been in evidence in previous years, some have probably escaped destruction by the winter dressing. A close inspection about the base of the shoots will probably reveal the presence of odd insects, which, if exterminated now, will prevent the formation of a colony later on. Methylated spirit applied to suspicious corners with a soft brush will make the position uncomfortable for immature insects, but its effect upon those more advanced is very slight. Red spider is undoubtedly the worst pest to which the Vine is subjected, and it is generally more or less in evidence. A fruitful cause of this is a dry atmosphere within the house or extremes of temperature outside, which, in conjunction with bright sunshine, necessitates the ventilators being more widely opened than one would like. Little can be done by way of syringing with insecticides after the flowering period, but if taken in time the use of a sponge and warm soapy water applied to the affected parts will considerably check it.

Peaches and Nectarines.—Disbudding should be carried out as the shoots become large enough, removing those from the higher parts of the trees first. Spread the work over a week or more rather than performing it at one time. Apply water freely until the fruits commence to colour; afterwards more sparingly. In regard to this a mulch of well-prepared material placed upon the border is very helpful. With ripening fruits syringing must be withheld, but later trees are greatly benefited by a drenching twice a day in bright weather.

HARDY FRUIT DEPARTMENT.

Strawberries.—The plantations may now be well cleaned preparatory to the customary mulching being applied. Weeding and hoeing should be done successively, and if time can be spared to pull off the decaying foliage it will be well spent. A dressing of soot about the plants is distasteful to slugs, while old and somewhat exhausted plantations would be greatly benefited by a dressing of nitrate of soda, 1oz. to the square yard, just before the blooms open.

Newly Planted Fruit Trees might with advantage be given a slight mulching to prevent evaporation, but established trees are best left for a while longer to enable the sun's warmth to penetrate the soil. The necessary material, however, may be got ready by being frequently turned, so as to destroy the seeds of Corn or Grasses it may contain.

JAMES DAY.
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Galloway House, Garlieston, Wigtownshire.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Larch poles for pergola (*T. E. W.*). The above-ground portion should not require any dressing at all, except for a few inches above the ground level and, of course, that portion below. Larch usually—indeed, invariably—decays first at the ground level, but even so, where the poles are of some size and contain a fair amount of heart growth, they will last for years. You appear, however, to be erring on the side of small-sized poles, and if these are to form the uprights, we do not think them strong enough. Larch wears best when stripped of its bark, and by dressing the base of the poles with gas tar or Stockholm tar they would last for some years if of good size.

To furnish narrow borders (*Jerseyman*).—You do not give the size of the borders, which would have been helpful in the circumstances. From your description the aspect would be most suitable for a small rockery. You speak, however, of desiring a winter display, and say that the winter temperature is 45° to 55°. Are we right in concluding that these borders are in the open? If so, how do you get your winter temperature? Ferns would not be very happy in this sunny position; but if in the open, many alpines would succeed quite well. These plants are not specially suited for winter display, however, and we should like to be sure about the points we have raised. The miniature rockery idea is feasible in itself, and if the position is quite in the open, you might plant many things that would do quite well and afford you much pleasure. If you will kindly give us the particulars asked for, we will do all we can to help you.

Plants for narrow border (*Alpha*). You have not given the size of the border, unless you mean that it is 7 feet 9 inches wide, but a border of this width would not be a "narrow" one; and you do not say its extent, therefore we are precluded from saying whether you have sufficient material to plant in it or not. In any case you should group the plants for effect, say, three groups of one dozen each of Calceolaria amplexicaulis, breaking these up with the Nicotiana and Calliopsis, and, if the space permits, by the pink and red Antirrhinums, also in groups. Bold groups of Dahlias should also be planted, and if you know their colours distribute them separately. In another line of groups you might arrange the Cineraria, scarlet Begonia, white Marguerites, crimson Geranium, and Stocks in much the same order as we have placed them, employing a number of plants of each to form the groups, and planting the front with Ageratum, Verbenas, Lobelia and Violas in their distinctive shades. Your better plan would be to make a rough sketch of the border, marking the variety of plant and its colour, and see the result before planting out. We do not publish names and addresses of our correspondents, but these should accompany all communications as an evidence of good faith. Please see rules.

Alpines for rockery (*D. Morris*).—The plants best suited to your requirements, so far as we are able to determine, would be *Aubrietias, alpine Phloxes (that is, those of the setacea group and others), Campanulas, such as muralis, turbinata, garganica in variety, carpatica varieties, G. F. Wilson, cæspitosa and many more. Then in *Dianthus you might select any of the species, while the genus Saxifraga contains dozens of good things suited to shade and sun, the mossy kinds being best for shade and the encrusted for full sun. The Megaseas, too, are very good, and may be planted in either position. In addition there are Antennarias, *Achilleas, Polygonums, *Onosmas, such *Androsaces as lanuginosa, foliosa and sarmentosa, quite a host of Sedums, Gentians and other plants that go to make the rock garden a sort of treasure-house. Then, of course, there are Rock Roses and other sub-shrubby plants that are delightful in their way, together with Ramondias, Primulas, Acantholimons, Thrifts and the like. None of these is really fastidious, but those marked thus (*) are often benefited by the addition of old mortar to the soil. Permanganate of potash is in gardening most frequently used in a diluted form as a deterrent to fungoid diseases, and not for watering plants. If the soil near the wall is really sour, this might be remedied by trenching and by the addition of lime.

Seedling Bocconias (*B. H.*).—It is hardly possible that seedlings of the Plume Poppy will arrive at the flowering stage the same year as sowing the seeds, but should any of the plants do so—which we doubt—the flowering would not be at all representative of its kind. Indeed, this may be so in the second season also, and a plant of perennial duration usually requires a much longer period of time before maturity is reached. The good flowering of the Plume Poppy is dependent on the formation of strong basal crowns each year.

Stocks and Asters dying (*J. H. Gibbs*).—Where slugs are the cause of the trouble, the trail they leave behind affords a direct clue; but as you make no mention of this it is just possible that woodlice or crickets may be doing the mischief. In any case you might lift the boxes, examine them, and dust soot below and also on the plants and the surface of the soil. At this season all the insect pests of the garden and greenhouse increase very fast and should be kept in check. Both Stocks and Asters when in too close a frame are liable to the attacks of a minute fungoid disease, which causes the plants to damp off. Drier soil conditions and more air about the plants, together with a dusting of air-slaked lime about the collar of the plants, should assist matters, or you might syringe the plants with a sulphur and soft soap solution. We think the lime treatment will be best in your case, dusting it freely about the neck or the collar of the plants and keeping the soil frequently stirred with a stick to prevent stagnation or even undue moisture.

TREES AND SHRUBS.

Climber for Willow tree (*Mrs. Dinesen*).—A Rose ought to thrive at the foot of the Willow you mention. It might be possible to make a mound a foot or so high for the plant near the base of the tree. A variety of Rose that is known to thrive in the district would be the best to plant. If Crimson Rambler grows well with you, that would do, or one of the wichuraiana Roses, such as Dorothy Perkins, Alberic Barbier or Hiawatha, might be tried. For your arch over the gate you might try a Honeysuckle, either a common one or the Japanese Lonicera japonica. Clematis Vitalba would be sure to grow and would rapidly cover the desired space, but its flowers are less showy than those of the Honeysuckle; it is, however, a much more vigorous grower. Although it is not necessary to soak Sweet Pea seeds before sowing, the soaking is not calculated to affect the health of the plants.

The "Alpine Cedar" (*Fircroft*).—We do not remember hearing of a tree called "Alpine Cedar" and such a name is not given in any reference book we have seen. It is quite probable, however, that the tree referred to is the Swiss Stone Pine (Pinus Cembra). This is a common tree on the slopes of the European Alps, particularly at an elevation of from 4,000 feet to 6,000 feet. Vigorous examples attain a height of 100 feet, but it is more frequently met with 20 feet or 30 feet shorter. It is a five-leaved Pine—that is, the leaves are produced in bundles of five—and the species is distinguished from other five-leaved Pines by its rather stiff, narrow, pyramidal habit. It is rather largely grown in English gardens, but it is rarely that very large examples are met with; specimens 30 feet to 50 feet in height may, however, be seen fairly frequently. If you can obtain a specimen, *i.e.*, a branch with typical leaves, and cones if possible, we shall be pleased to verify the name.

Willows for a screen (*A. W. Bydon*).—The following Willows will be suitable for your purpose: Salix purpurea and S. alba vitellina, red and yellow-barked forms of the latter for the front places, and S. viminalis, S. rubra, S. triandra and S. daphnoides for less prominent positions. By cutting them over hard each year you can keep them dwarf. You can either plant cuttings 1 foot long next autumn or obtain young plants. Any Willow-grower would be able to supply you with sets. It is too late to commence planting now. Gorse may be kept dwarf by repeatedly cutting it back while young. You cannot transplant it successfully. Seeds ought to be sown thinly on the ground that it is intended to occupy, and if the plants appear too thick, thin them out. In the case of double-flowered Gorse, it should be grown in pots until it can be placed in a permanent position. It is usually propagated by means of cuttings placed in a bed of sandy soil in a close, cold frame in August or September. The cuttings root during winter and are ready for potting up the following April. The best time to cut both single and double Gorse back is as soon as the flowers are over.

ROSE GARDEN.

Rose Gruss an Teplitz (*R. T.*).—This is a very erratic Rose to deal with as regards its growth and blooming. In some soils it will make enormous growths, which will only bloom near their extreme ends. The best plan to adopt in order to make the long growths flower is to tie them over, rainbow fashion; or, if the plants are against a fence or wall, spread the growths out horizontally as much as practicable. We have found it to be a good plan to lift the plants each year, trim over the roots and replant in the same position, taking care not to afford them very high culture. This should be done in October; then in March cut the growths back to about 18 inches from the ground. We think you will find this practice ensures a dwarfer and freer-flowering plant than those allowed to grow unchecked.

Manuring Roses in a greenhouse (*H. Want*).—It would certainly have been better if you had manured the Roses in November. The growths being under glass and the roots outdoors, root-action is much accelerated, and by this time the trees will need some artificial stimulant. This can, however, be afforded in the form of liquid, giving to each tree two or three gallons, and more if they have been long in their present situation. Cow-manure and soot make excellent liquid manure, and you could easily make this in an old cask. Put about two pecks of fresh cow-manure in a bag and half a peck of soot in another bag, then put into the cask about thirty gallons of water. After standing three or four days this may be applied neat.

FRUIT GARDEN.

Budding a Cherry tree (*J. H. Gibbs*).—The principles of budding, whether of fruiting or flowering plants, does not vary, and with well-established stocks you might bud in June or July. As you are successful in Rose-budding, you should experience no difficulty with the fruit trees. Fowl-manure is of a very hot nature, and will be best if mixed with twice its bulk of garden soil and allowed to remain for a few months, when it could be utilised for garden or vegetable crops of all descriptions, digging it in during the autumn and winter months.

Manuring Apricot tree (*Artificial*).—Your securing a crop of Apricots this year will depend on the strength of the bloom now open and the fertilising properties of its pollen. If these are good, you will soon have a good set of fruit. Then, as soon as these are the size of small Nuts, pull off some of the smallest, yet leave plenty. Later, when the fruits are the size of Walnuts, go over the tree again and remove enough to leave a fair average, but by no means a heavy crop. This should help your tree very much. Further, to give it useful root help, fork in very lighly, just to bury it, a couple of pounds of finely crushed lime. This may soon be followed by a heavy soaking of water, as, with light soil and being close to a wall, the roots are probably far from being over-moist. Then top-dress with 3 inches of animal manure for the summer. When the fruits are of good size, give a further soaking of water. Apricots like a very firm soil; hence it may well be trodden fairly hard.

Shoots from Vine for inspection (*H. S. C.*).—The shoots sent appear to be small laterals, and there is neither insect nor fungus present to account for their appearance. They look like small shoots that have been pushed off the stem by the vigorous growth of one of the principal laterals which was springing from a spot very near to the place of origin.

THE GREENHOUSE.

Shading glass houses (*A. J. A.*).—Whatever substance is employed in order to shade plants under glass from the full rays of the sun, it should be white or nearly so. A clear white has a somewhat harsh effect; hence unbleached calico is often used for blinds, as its creamy tint is not so conspicuous. In the case of permanent shading put on the glass in the form of paint, a little green is used to tone down the white, but that is more for outside effect than for the benefit of the plants underneath. At one time green rays were considered to be very helpful to plant-life, hence glass was often tinted green, but this idea is now exploded, and for horticultural purposes clear glass is preferred. It has been proved by experiment that different coloured rays affect plants in a different manner; for instance, red stimulates but weakens, while a clean, pure light both stimulates and strengthens. Violet tints retard and are altogether harmful to plants subjected to them.

Cyclamen leaves and flowers for inspection (*Mrs. E. B. A.*).—The Cyclamen leaves sent are very badly attacked by red spider; indeed, these pests are principally answerable for the unsatisfactory condition of the plants. There are also evidences of thrips, than which there is no more destructive insect. The plants have evidently been grown under very disadvantageous conditions, the presence of red spider showing that the atmosphere of the house has been kept too dry. You can do nothing towards remedying the complaint this season, but when the flowers are over they may be stood in a cold frame and watered for a time. About midsummer or a little earlier the plants will go to rest, when they may be kept dry. Towards the end of July the corms must be shaken clear of the old soil and repotted in a mixture of loam, leaf-mould and sand. A frame that gets very little direct sunshine is the best place for them, the plants standing on a hard ash bottom, as this keeps in an even state of moisture and is not favourable to insect pests. Early in the autumn the plants should be taken into the greenhouse, where during the winter a good light position must be assigned them.

Treatment of "Castor Oil" Plant (*F. M.*).—The plant referred to by you as the "Castor Oil" Plant is in all probability Aralia Sieboldii, also known as Fatsia japonica, a native of Japan. The leaves are in shape something like those of the Castor Oil Plant, hence that name has been generally applied to it. The specimen referred to by you has undoubtedly experienced rough treatment, and it is almost useless to think of growing it into an effective plant for indoor decoration, especially when it is borne in mind that neat, well-furnished little specimens can be purchased at a cheap rate. The only thing that can possibly be done to form a dwarf plant is to cut down yours to within 5 inches or 6 inches of the pot, when, in a general way, young shoots will be pushed forth. As the one referred to by you has, however, had such rough treatment, it is very probable that it will not break out in a satisfactory manner, even if

cut down. One point to bear in mind, however, is that this Aralia is as hardy as the common Laurel, and if planted out of doors it forms a really handsome specimen. We know of several instances where plants that have grown too bare and tall for indoors have, on our advice, been planted out in the garden and are now greatly admired.

Pot Hyacinths not flowering (*Crux*). — One of the Hyacinth bulbs sent had made no roots whatever, and it is useless to expect bulbs to flower in a satisfactory manner unless they are well rooted. The other, which had apparently been in a glass, was in such a poor state that it could not be expected to flower properly. All bulbs that are intended to flower indoors should be potted in October and stood outside till they are well rooted, which should be by the end of November. They may then be taken into the dwelling-house, giving them a good, light position; or they can be left out of doors till Christmas, after which they will soon respond to the additional heat of the dwelling-house. The failure of the Chinese Sacred Lily was no doubt caused by want of light, as on the mantelpiece it would not get much. Weevils had nothing to do with the failure of your bulbs.

Treatment of Vallota purpurea (*Ennestymore*).—The best time to have this beautiful South African bulb in bloom is in August and September. Vallotas are very partial to good yellow loam with about one part of leaf-soil to two of loam and a liberal sprinkling of silver sand. When once potted they will go on for some years without repotting, and will, in fact, flower all the better for it providing the bulbs do not become too crowded. After flowering the growth is completed, but the bulbs should not be kept dust dry, as some bulbs are, but moderately dry, as no absolute rest is given the Vallota. You will find an excellent article on the culture of Vallotas in our issue for January 16 last.

Azaleas gone wrong (*Togo*).—There are so many different causes that may have affected your Azaleas that it is, of course, quite impossible for us to indicate the particular one. In the first place you speak of a night temperature as low as 36°, and quite possibly it has been lower than that. This would be very likely to injure them, more particularly if the soil happened to be very wet at the time. Again, the roots may have been allowed to get too dry, for Azaleas quickly resent this; or the drainage may have been in a bad state, and this would set up a stagnant condition of the soil. At all events, while the cause of the trouble is at best a matter of surmise, there can be no two opinions as to the best thing to do, and that is to throw the plants away, as once an Azalea falls into ill-health it is a difficult subject to revive.

KITCHEN GARDEN.

Raising new varieties of Potatoes (*C. W. R.*).—New varieties of Potatoes can be raised only through the agency of seed that is obtained from ripened seed-apples or fruits carried on the plants when flowers are specially fertilised. Many years ago we had varieties that produced seed-apples in great abundance, but it was a defect, as those fruits were produced at the expense of tubers. Now, because most of the newer varieties are heavy tuber croppers, even though they bloom abundantly, they fail to produce pollen in the flowers sufficiently to create seed-apples by self-fertilisation. For that reason it is needful for those who desire to raise new varieties to seek for and obtain what few grains of pollen dust they can from a number of flowers of any one variety that is to be the pollen or male parent, and with that pollinate the points of the pistils of two or three flowers of the variety that is to be the seed parent. If the pollen be collected on a sheet of white paper, it can, with the aid of a tiny camel-hair brush, be gathered from the paper and placed on the pistil points of the selected flowers. As one seed-apple often produces from forty to fifty seeds, it is obvious that two of such seed-apples produced by any one cross are ample. Still, three or four flowers on a truss can be fertilised, to make sure enough of them set or produce seed. When the fertilisation is done, and during July is an excellent time, the stem carrying the fertilised flowers should be supported by a small stake and have a label showing the nature of the cross attached. All blooms except the few fertilised should be picked off. It is wise when seed-balls are formed to encase them in a small piece of muslin to prevent their falling when ripe. What you describe as putting an eye from one Potato into a tuber of another variety is called grafting. We practised it many years ago, but no change in the variety whatever followed. It is a worthless experiment. We have not seen the parentage of King Edward VII. stated; it is a very handsome variety, but a poor cooker.

Hot-tasting Potatoes (*Welshman*).—The hot taste or astringency you complain of in your eating Potatoes is doubtless due to their having been for some time unduly exposed to light and air, as in that way such exposure creates chemical changes in the flesh from the skin inwards, and renders thick peeling necessary if such taste is objected to when cooked. We have never met with or heard of any such offensive hotness being caused by manures, and think it most unlikely such is the case with yours; but it you do not care to eat them, then plant your tubers by all means. If some of them are large for planting, cut them through the middle, lengthwise that is, from the bud end downwards. Do this twenty-four hours before you plant and dust with lime to cause the cut surfaces to harden before planting. You may be assured that the produce next autumn will be good, sweet and pleasant eating.

Potatoes on north aspect (*Artificial*).—The site of your Potato patch of last year was too shaded, cold and damp for such a crop, and especially for a late, strong grower like Up-to-Date. No doubt it would be wiser, if you crop the same ground with Potatoes again, to plant Beauty of Hebron or Early Puritan, as these are not rank growers. The position may suit Peas and Beans very well, as these crops are less tender and need less warmth than Potatoes. In a hot, dry season it should not be too cold for Potatoes, but if it be a cold, damp one, then such things as Potatoes will not thrive there. We do not attribute the lack of tubers in your Up-to-Date to the manure dressing, and least of all to the kainit, but rather to the cold, sunless position in which they were grown. In such a position you should have Peas and Beans cropping till a late period of the autumn. Giant Cauliflowers got out early should also do well in such a position.

Basic slag and Potatoes (*Enquirer*). — Basic slag would have been an excellent manure for Potatoes had it been applied to the soil early in January, as by the time the Potatoes could have utilised manure the slag would have become soluble. But as you have the basic slag, we suggest that you plant your Potatoes in furrows 5 inches deep and first dust along them some of it at the rate of a pound to a 20-feet run, and do the same with finely crushed sulphate of ammonia, putting in tubers of the same size and width apart; then see the result. Basic slag is a phosphatic manure and acts slowly; sulphate of ammonia is quick-acting, as it soon dissolves and supplies nitrogen. A good chemical manure for Potatoes is bone-flour, two parts, and kainit (potash), two parts, applied in January, with two parts of sulphate of ammonia applied either at planting-time or hoed in when the tops are above ground. Test the slag with Peas and Greens in the same way.

Preventing attacks by the Onion maggot (*T. T.*).—The only reliable preventive of this pest is to sow the seeds in boxes in February and plant out the seedlings in April. Even this is not absolutely sure, but it is exceedingly rare to find box-raised plants attacked to any serious extent. If you have not done this, try spraying two or three times with an emulsion of paraffin, soft soap and quassia.

Artificial manure for Rhubarb (*C. W. C.*). For the manure to have any beneficial effect on the growth of the Rhubarb this spring it must be of a nature that will produce immediate growth, and for this purpose we know of nothing better than nitrate of soda and soot. Grind the soda down into fine powder and mix with twice its bulk of soot. Fork up the soil (about 3 inches deep without injuring the roots) as far as you think the roots extend, and then apply this manure, washing it down into the soil with a copious application of water. Three handfuls to each plant would be a good dressing, repeating the dressing in a fortnight's time.

Mildew on Parsley (*C. W. C.*).—We have occasionally seen failures in crops of Parsley in hot dry summers from attacks of mildew and other causes when growing on light, shallow soils, but never when grown on well-cultivated, cool, deep soils and the plants have been well thinned. Should you be threatened by another visitation this year, we know of no better preventive or cure than a timely application of quicklime and flowers of sulphur in the proportion of a quart of sulphur to a peck of quicklime, dusting the plants carefully over and seeing that the leaves are effectively dredged on both sides. The best preventive against another attack in the future, we think, will be to give the crop an entire change of land, to deeply trench and generously manure the soil this autumn, and give it a good liming in spring.

Peas and Corn for poultry feeding (*F. S.*). Yes, certainly you may grow successfully any sort of Pea or Corn in your garden. The Canadian White Pea you mention can no doubt be obtained from any seed-merchant advertising in our columns. It is getting rather late for sowing Peas, but if you immediately sow the early maturing field Pea Warwick Gray it should be ripe about the middle of August. Pea-meal is made from the ordinary cheap field Peas, the common Gray or the Hastings Gray being among the best. The Peas become dry and hard as soon as ripe and ready for harvesting, and may then be ground into meal if wished. It would be interesting to try the growth of Wheat, Buckwheat and Oats on a small scale in your garden; you could not lose anything, and the experience would be useful as showing how much cheaper you could grow your Corn than you can buy it. The middle of October is the best time to sow the above cereals. They may also be sown in March. The most economical way of feeding poultry we have found to be by boiling Potatoes and any refuse from the kitchen, in the way of Apple and Potato peelings, bones and stale bread, in fact, any clean, wholesome kitchen offal, mixing with it some Barley-meal and sharps, giving them as much of this (in a warm condition) as they can eat for the first meal in the early morning, and for the evening meal Indian Corn, light Wheat, Oats and Barley, giving one for two or three days, then the other, and so on. The fowls thrive better on a change of Corn than if always kept to the same. If they have a grass run they will require very little food in the middle of the day; but if they have not, greenstuff in some form should be provided for them.

MISCELLANEOUS.

Gooseberry shoots for inspection (*Miss P.*). No Botrytis cinerea is present on the Gooseberry shoots, but the tiny black specks are the fruiting bodies of another fungus, a species of Phoma, which is said sometimes to do damage and cause defoliation of the bushes. It would be well to prune away affected shoots and burn them.

Peaty substance from the Canary Isles (*Seeker*).—We have had no experience of the peat-like substance sent by you, but should have little hesitation in using it for potting soft-growing plants, and to a certain extent for propagation. For potting purposes it may take the place of peat or leaf-mould—that is, to form one item in the compost. A mixture of two parts loam to one part of the enclosed substance and a fair sprinkling of silver sand should make a good potting material for many plants, including Ferns. Mixed with loam in equal proportions, with about half the quantity of sand, it would doubtless prove useful for many propagating purposes.

Starting in a nursery business (*C. H. E.*). Whether a business can be made profitable depends largely upon the aptitude of the person undertaking it, the amount of capital he has at his command and various other things. For example, since you desire to grow "hardy cut-flower stuff for market," your place of business should not be too far removed from a good market town where such a class of goods is in demand. It would also be necessary for you to attend to the selling of such things yourself, or that you have an assistant to help you, as it would not pay to send this class of goods to a commission agent. You would also further require a fair amount of space to grow the plants you name, though the forcing of vegetables, such as Seakale, Asparagus and other crops, might advantageously be carried on in conjunction with the growth of hardy cut flowers, provided you had the use of frames, hot-beds or heated greenhouses. Whether the hardy stuff as stated can be profitably grown depends entirely upon the supply and demand in any district in which you may set up. Unless you have at your command capital to carry on for a year, we advise you to wait and pursue enquiries meanwhile.

Names of plants.—*J. R. K*—1, Souvenir d'un Ami; 2, Mme. Lambard; 3, Devoniensis.——*G. McHorsey.*—1, Thuya occidentalis; 2 and 4, Cupressus lawsoniana; 3 and 7, Thuya plicata; 5, probably Cupressus lawsoniana lutea; 6, Abies Pinsapo; 8, Forsythia suspensa; 9, Taxus baccata aurea variegata.——*H. H. S.*—1, Dendrobium wardianum; 2, D. nobile; 3, D. Farmeri; 4, Lopezia lineata; 5, Fuchsia Cottinghamii; 6, Hæmanthus species, probably coccinea (cannot name without flowers).——*G. Rea.* — 1, Choisya ternata; 2, Leucothoe Catesbæi variety; 3, Populus species, probably deltoidea; 4, P. tremula; 5, Acer dasycarpum; 6, Cornus mas.——*T. J.*—1, Crassula lycopodioides; 2, Sedum Sieboldii; 3, Sempervivum arboreum variegatum; 4, Sedum prealtum; 5, Aloe species.——*W. A. B.*—Rhamnus alaternus angustifolia.——*G. P. Leschallas.*—Narcissus incomparabilis flore-pleno.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London, W.C.

CAMELLIAS FROM ST. LEONARD'S HILL, WINDSOR.

A charming variety of Camellia flowers, gathered from the open garden, has been sent by Mr. Robert Brown, gardener to Lady Tress Barry of The Gardens, St. Leonard's Hill, Windsor, with the following note: "I am sending you a few blooms of Camellias, all cut from the open garden, just to show you that they have passed through the past trying season without the slightest injury. Out of over 400 plants, planted out in all positions, not one has been injured by the weather, and there has been no attempt to protect them in any way. At the present time thousands of flowers are open on both named varieties and seedlings of our own raising from seed ripened outdoors."

ANEMONES FROM LINCOLNSHIRE.

Messrs. Gilbert and Son, the well-known Anemone specialists of Dyke, Bourne, Lincolnshire, send us magnificent flowers of their beautiful plants, which are particularly pleasing during the spring months. They write: "We are sending for your Table a few specimen blooms of some of our Anemones. There are about twenty varieties in all, including our well-known King of Scarlets and the grand variety fulgens oculata gigantea, which we recently introduced. The blossoms of both of these are rather small and short-stalked on this occasion, as, owing to the lateness of the season, they are only just beginning to flower. The St. Brigids are from a bed of seedlings in the open, from which we have had blossom ever since last August, except during the severe weather last month. The Pulsatilla are rather poor, but a week ago they were a grand sight, and Anemones robinsoniana, ranunculoides and apennina are in perfection now. There are in the box six varieties of fulgens, including the rare græca, of which we have some strong plants raised from seed. We are enclosing with the flowers a copy of our leaflet, "Anemones All the Year Round," which gives a fairly representative list, and which we hope will make the possibilities of this lovely but too-little-grown flower more generally known."

CINERARIA FLOWERS.

Miss M. Maxwell Stuart, Scarthingwell Hall, Tadcaster, Yorkshire, sends beautiful flowers of the Cineraria stellata strain, which are graceful in growth and varied in colouring. We hope our correspondent will persevere in her interesting work of raising new forms of a beautiful flower.

DAFFODILS FROM STAFFORD.

Mr. C. F. Mowl, gardener to Mrs. Stephenson, Burton House, Stafford, sends large and well-grown flowers of Daffodils, the varieties being Big Ben and Mme. de Graaff. The flowers of the first named, though large and of good substance, were rather streaked, a feature that often occurs with this variety. He writes: "I am sending a few Narcissi for your table, as grown in the open. The specimen with the large yellow trumpet is named Big Ben; the other, we believe, is Weardale Perfection" [no, Mme. de Graaff]; "but, owing to the labels being lost, we are not certain. Perhaps you can verify this."

SOCIETIES.

BOURNEMOUTH GARDENERS' ASSOCIATION.

ON Tuesday, April 20, Mr. Nippard, head-gardener to Mr. J. J. Norton, Ashton Court, Bournemouth, gave a very interesting and instructive paper on "Flowering Trees and Shrubs." This was the date fixed for the annual exhibition of hardy spring-flowering plants, shrubs excluded, and before the paper was read the awards were made by Mr. W. Reeves and Mr. Garner. In the class for six vases of blooms Mr. Tompkins won first prize. His exhibit was a very meritorious one, and included fine blooms of Narcissi Empress, Crown Imperial and Tulip la Reine. Mr. Nippard won second prize with a beautiful lot of flowers. His Tulips, Polyanthuses and Narcissi were charming. Mr. Lansley secured premier honours in the class for three vases of hardy spring-flowering plants, shrubs excluded, Narcissus Emperor and Tulip Keizerskroon being exceptionally fine. Second prize was won by Mr. Sprackling with three beautiful vases of Narcissus Horsfieldii, Hyacinths and Tulips, and third honours went to Mr. Pearce, who had a magnificent vase of Polyanthuses in his collection. Mr. Tompkins was deservedly awarded a certificate for a plant of Cineraria with a massive head of large flowers. Mr. G. Garner presided at the meeting, and after the prizes had been handed to the successful competitors, Mr. Nippard read his paper. He dealt with the subject in a very able manner, and after pointing out the many mistakes which inexperienced persons made in the planting of flowering trees and shrubs, particularly those of overcrowding and injudicious mixing with conifers, referred in detail to the majority of the best kinds and varieties. Rhododendrons, Mr. Nippard said, may be had in bloom in mild districts for nearly six months, some of the earliest being available at Christmas. Dwarf-growing shrubs, such as Andromeda floribunda, Daphnes, Choisya ternata, Hydrangeas, Weigelas, Deutzias and Azaleas, were strongly recommended for growing in small gardens. The lecturer advised the cultivator to graft Lilacs on the Privet, so as to secure short-jointed wood and avoid the suckers, which are often so troublesome. The buds may be worked on the Privet stock close to the ground just the same as a Rose is budded, said Mr. Nippard. Wistarias grown as standards were recommended, and berry-bearing plants, and Crabs especially, were dealt with. A free discussion followed the reading of the paper, and there was much evidence of the popularity of hardy flowering trees and shrubs given. Votes of thanks to the lecturer and chairman were accorded and ended a very enjoyable evening.

HORTICULTURAL CLUB.

THE COLOURS OF PLANTS.

AFTER the usual monthly dinner of this club at the Hotel Windsor on the 20th ult., Mr. W. J. Jefferies taking the chair, Mr. A. E. Bunyard gave a most interesting lecture on the results of his research and experiments into the underlying causes of colour and change of colour in plants. By means of a number of lantern slides, some representing flowers in their natural colours as obtained by up-to-date processes and others representing prepared microscopic sections of the colour-producing plant cells, he showed and explained the many subtle ways in which colours are widely varied by very minute modifications of the colouring matter, or even only of its arrangement. In the first place he explained that we recognise colours by virtue of the varying powers possessed by the colouring materials of absorbing white light, *i.e.*, sunlight, and breaking it up, as in prisms, into those constituent tints which we see in the rainbow or in the spectrum. When so broken up these components are partly absorbed and partly thrown off or reflected and it is by virtue of the rejected rays and not the absorbed ones that our eyes are affected and we see the colour concerned. Inherently, therefore, what we call a red body is really all the tints but red, and not red at all in itself. He then went on to explain that the colouring matter in plants is of two kinds, sap or liquid colours and "plastids" or minute microscopic bodies of a granular nature. In one very remarkable slide, representing a section of a flower petal, he showed how these two kinds, say, one yellow, the other red, may be associated in separate but adjoining cell-layers in definite patches and in such a fashion that when both were exactly superimposed a very intense colour appeared, while otherwise a less exact coincidence would allow the lighter tint to appear between the darker one, and in this way produce more or less marked gradations of tint by purely microscopic shifting of the layers. The skill which could have produced such a beautifully clear exemplification as a lantern-slide created a great impression when the delicacy of the operation was considered. Mr. Bunyard next explained that the chief colouring matter of plants, viz., the chlorophyllic or green granules which pervade the foliage, is almost always, if not invariably, associated with a yellow colouring matter termed carotin, from its presence as the colouring medium of the Carrot. In foliage this is masked by the predominating green granules, but when these are withdrawn in the autumn the yellow tint becomes visible and, in conjunction with other media, produces the brilliant reds and yellows of the autumn landscape. Another interesting point brought out by the lecturer was the practical identity of blue and red colours, whether sap or pigmentary, from the fact that a slight excess of acid on the one hand or alkali on the other would determine either colour, the blue becoming red by acid reaction and the red blue by alkaline, as in the familiar test cases by Litmus paper, which in point of fact is stained with a vegetable colour to start with; hence a very slight change in the composition of the soil or in the assimilative tendencies of the plant itself may lead to a change from red to blue flowers or *vice versâ*, as we see in the much-discussed cases of the Hydrangea. A further series of slides illustrated very peculiar forms taken by colouring matter in the epidermal layers of fruits, the Melon sometimes displaying under the microscope curious arrangements of rods and ribbons, while in other cases the matter takes the form of minute crystals. Flowers being modified leaves usually contain chlorophyll in their incipient stages, but eliminate it later as they assume their distinctive colours. In the green flowers, however, such as green Roses and Dahlias, this elimination does not occur; the chlorophyll persists and in this way a partial reversion occurs. An admirable feature of Mr. Bunyard's research, as was recognised by all present, is its eminently practical character, since a careful analysis of the colouring factors may well determine the effort of hybridisers and selective cultivators in the right direction, when otherwise in ignorance, say, of the entire absence of a certain component character, they are striving to obtain the impossible by combining parents neither of which possess it. He pointed out, too, that a colour which may be entirely absent in the flower may betray its presence in the plant's system elsewhere, and also that varieties even when not in flower may be recognised by such indications. In the subsequent discussion, in which Messrs. Druery, Cuthbertson, Pearson, Barr, Sanders and Dr. Shillitoe took part, several other points were raised, to which Mr. Bunyard replied, Mr. Druery pointing out that the most wonderful colour was the chlorophyll, the tiny green grains of which constituted the one and only link between the vitality of all organic creation and the life-giving influence of the sun, by virtue of which they were enabled to transform inorganic materials into organic, and in this way provide the animal world, including man himself, with the essentials of existence. A hearty vote of thanks was awarded to the lecturer in conclusion.

CORNWALL DAFFODIL AND SPRING FLOWER SHOW.

THIS society, which is now in its thirteenth year and whose patroness is Her Majesty Queen Alexandra and whose president is the Princess of Wales, held a most successful show in the Market Hall, Truro, on April 15. On account of the extreme lateness of the season, the show, which was originally fixed for March 30, had been postponed for seventeen days. The entries were more numerous than they had ever been before, and the quality of the exhibits was very high. The Hon. John Boscawen, who has been hon. secretary to the society since its initiation, undertook the arrangements with his usual tact and thoroughness. Owing to brilliant weather the attendance at the show was unusually large.

PRIZE LIST.

Thirty varieties of Daffodils, first, Mr. E. H. Williams. A very fresh and admirably arranged stand, but scarcely, if at all, better than the second-prize exhibit. Good flowers were Firebrand, Citron, P. R. Barr, Weardale Perfection, Homespun, Incognita, Southern Star and King Alfred. Thirty varieties of Daffodils in commerce or not in commerce, first, Mr. J. C. Williams. This was a magnificent stand entirely composed of seedlings raised by Mr. Williams, and numbered, but not named. Among these there were many of great beauty, some of the flat-cupped Englehearti section having the central disc of glowing orange scarlet, others rich yellow and some pale saffron. There were some large and fine bicolor trumpets, a showy golden trumpet and a very beautiful flower that appeared an improvement on White Queen.

In the following nine classes the price of the bulbs was limited to 10s. In those for six Magni-Coronati, six Medio-Coronati, three Leedsii, six Parvi-Coronati and fifteen distinct varieties, any section, Miss Clarice Vivian won the first prizes. Finest bloom Magni-Coronati, first, Miss Mabel Williams with Weardale Perfection; finest bloom Medio-Coronati, first, Colonel Noel Usticke with Lucifer; finest bloom Parvi-Coronati, first, Miss Mabel Williams with Firebrand; finest bloom Poeticus, first, Miss Clarice Vivian with Almira; six Magni-Coronati, first, Mr. P. D. Williams with a splendid set of flowers comprising Conqueror, Michael, Diogenes, Countess of Stamford and two unnamed seedings; six Medio-Coronati, first, Rev. A. T. Boscawen; three Leedsii, first, Mr. E. H. Williams; six Parvi-Coronati, first, Rev. A. T. Boscawen; three doubles, first, Miss Clarice Vivian; finest bloom Magni-Coronati in commerce, first, Mr. E. H. Williams with King Alfred; finest bloom Medio-Coronati in commerce, first, Mr. C. Dawson with Buttercup, a good golden yellow; finest bloom Parvi-Coronati in commerce, first, Mr. C. Dawson; finest bloom Poeticus in commerce, first, Rev. A. T. Boscawen; finest bloom Magni-Coronati not in commerce, first, Mr. P. D Williams; finest bloom Medio-Coronati not in commerce, first, Mr. J. C. Williams; finest bloom Parvi-Coronati not in commerce, first, Mr. J. C. Williams; finest bloom Poeticus not in commerce, first, Mr. J. C. Williams; group of Daffodil seedlings, first, Mr. P. D. Williams with a fine stand; ten distinct varieties, any section, first, Miss P. Noel Usticke. Awards of merit were given to Mr. P. D. Williams for Conqueror, Michael, Robespierre and Ivorine; to Mr. J. C Williams for Mrs. Francklin and White Star; to Messrs. Barr and Sons for Mrs. G. H. Barr; to Messrs. Cartwright and Goodwin for Scarlet Eye and Royal Sovereign; and to Mr. Walter Ware for Queen of the West, a golden trumpet not in commerce. A cultural commendation was awarded to Lady Margaret Boscawen for Outpost.

Three bunches of Anemones, first prize and cultural commendation, Mr. R. Fox; one bunch of Anemone fulgens,

first, Mr. T. B. Bolitho; three Polyanthuses, first, Mrs. J. Paull; three Primroses, first, Mrs. E. H. Williams; twelve hardy spring flowers, first, Mr. P. D. Williams; six hardy spring flowers, first, Mr. Howard Fox; three bunches of single Violets (three varieties), first, Lady Mary Trefusis; three bunches of double Violets (three varieties), first, Captain W. Tremayne; three bunches of single Violets (one variety), first prize and cultural commendation, Mrs. J. C. Williams; three bunches of double Violets (one variety), first, Captain W. Tremayne; six vases of Roses, first, Mr. A. Blenkinsop; three vases of Roses, first, Lady Margaret Boscawen; finest Rhododendron plant, first, Mr. R. Fox, with Lady Alice Fitzwilliam in splendid bloom. Best group of Rhododendron trusses, first, Mr. J. C. Williams, with a bright collection of seedlings; second, Mr. D. H. Shilson, with an equally good stand, in which Mrs. Henry Shilson and Duchess of Cornwall received awards of merit. Six trusses of Rhododendrons, first, Mr. J. C. Williams; six trusses of Rhododendrons grown under glass, first, Mr. R. Fox; finest truss of Rhododendron, first, Mr. J. C. Williams; finest truss of Sikkim Rhododendron, first, Mr. D. H. Shilson; finest truss of Rhododendron grown under glass, first, Mr. J. C. Daubuz; six Camellias, first, Mrs. J. P. Rogers; finest bloom of Camellia, first, Rev. A. T. Boscawen, with C. reticulata; three Acacias, first, Mr. J. H. Watson, with A. leprosa, A. riceana and A. longifolia. Mr. Watson also received an award of merit for a collection of Acacias grown in the open, which included A. juniperina, A. riceana, A. verticillata, A. ulicina, A. longifolia magnifica, A. l. mucronata, A. hæmatophylla, A. leprosa, A. melanoxylon, A. floribunda, A. diffusa, A. armata, A. a. angustifolia, A. ovata, A. acinacea, A. Drummondi and A. hastulata. Twenty hard-wooded flowering shrubs or climbers, equal first, Mr. T. B. Bolitho and Mr. C. Hext. Mr. Bolitho's collection was the best ever seen at the exhibition and contained several very rare subjects. Mr. Hext's stand, though bright, was composed of commoner plants. Six hard-wooded flowering shrubs or climbers, first, Mr. T. B. Bolitho. A cultural commendation was given to Mr. T. H. Archer-Hind for a collection of Lenten Hellebores.

A bright display was afforded by the nurserymen. Messrs. R. Veitch and Son, Exeter, who received an award of merit for Rhododendron Dr. Stocker, staged Acacia armata, A. verticillata, Boronia polygalifolia, Chorizema cordata, Gerbera Jamesoni, Witsenia corymbosa, Correa speciosa, Cytisus kewensis, Leucopogon Cunninghamii, Exochorda Albertii macrantha, Viburnum macrocephalum, Pentapterygium serpens and various rock plants.

The Devon Rosery, Torquay, showed many of the new Roses, such as Lady Quartus Ewart, Countess of Derby, Mrs. M. G. Martin, John Cuff, Queen of Spain, Souvenir de Marie Zayas, Elizabeth Barnes, Dorothy Page-Roberts and Mollie Sharman Crawford, as well as many old favourites. Award of merit.

Mr. G. Reuthe, who received an award of merit and cultural commendation for Calypso borealis, exhibited an excellent selection of rock plants and others, including Soldanella pusilla, Tecophilea cyanocrocus, Saponaria cæspitosa, Viola gracilis, Asperula ciliata, Campanula gloriosa, Gentiana acaulis alba, Houstonia cærulea, Linaria organifolia, Schizocodon soldanelloides and Draba olympica.

Messrs. Cutbush and Son showed Daphne oleoides, Azalea yodogama, Xanthoceras sorbifolia, Ledum latifolium, Erysimum helveticum, Rhodora canadensis, Rhododendron racemosum, Kalmia glauca, Sanguinaria canadensis, Arabis aubrietioides, Iris bucharica, Myosotis rupicola, Menziesia empetrifolia and other plants. Award of merit.

Messrs. Barr and Sons staged a splendid collection of Daffodils, including Cloth of Gold, Blood Orange, Gipsy Lad, Gloria Mundi, Vivid, Royal Star, Cygnet, Apricot, Firebrand, Magpie, Peter Barr, Mrs. G. H. Barr and many other novelties, and were granted an award of merit.

A similar distinction was accorded to Messrs. Cartwright and Goodwin, who made a fine display of Daffodils, comprising triandrus hybrids, Ibis, White Queen, Diaphenia, Eyebright, Lady Astrophel, Copeland Leedsii, Circlet, Judge Bird, Leading Lady and Goldseeker.

Messrs. Heath and Son, Cheltenham, showed a collection of scented-leaved Pelargoniums and a collection of rock plants, including Primula denticulata, Lotus peliorhyncus, Erodium pelargonifolium, Draba grandiflora, D. aizoides, Lathyrus cyaneus, Glaucium flavum tricolor and many Saxifrages. Award of merit.

DEVON DAFFODIL AND SPRING FLOWER SOCIETY.

THE annual exhibition was held in the Guildhall, Plymouth, on April 20 and 21. The number of entries constituted a record in the annals of the society. Fifty-four exhibitors were represented by 320 entries. In the section confined to the county of Devon several classes had from fourteen to sixteen exhibits staged. The centre of the hall, with the exception of a small space at the end away from the door, was filled with Daffodils, while round the sides were the various trade exhibits and the flowering shrub classes. These last did not seem to be as good as usual; still, the winning collection of Mr. T. B. Bolitho contained many choice things, such as Phillyrea decora, Viburnum rugosum, Embothrium coccineum and other good plants. A tent in the large space outside was connected with the main building by a covered way and formed an annexe. Here were most of the pot plants, such as flowering shrubs, Schizanthus, Tulips, Lilies of the Valley, Primroses in baskets, Cyclamen and Auriculas. The Misses Carew sent some wonderful Cyclamen that were fifteen years old. The corms were very large and quite filled a 12-inch pot. They were very well flowered.

Two noteworthy Daffodil blooms were the White Queen of Miss Clarice Vivian and the White Lady from Mrs. Tyacke in the single bloom classes. Both were fine examples of the perfection to which Daffodil culture can be brought. There was a distinct improvement in the number of entries for the spring flower classes and in the quality of the blooms staged. Both the Perpetual-flowering Carnations and the cut Roses were filled and made an interesting change from the beaten track. Captain Parlby is the secretary of the society, and worked hard to get together such an interesting show. The following were some of the principal prize-winners: Mrs. Tyacke, Miss C. Vivian, Messrs. Pope and Son, Miss M. Williams, Mrs. Christy, Mr. Soltau Symons, Mr. H. W. Grigg, Mr. J. C. Williams, Mr. H. G. Hawker (treasurer) and Mrs. Parlby.

The trade exhibits were very good. Messrs. R. Veitch and Sons, Exeter, had a miscellaneous group consisting of Acacias (variable), Clematis, alpines, rock plants, Amaryllis, Rhododendron arboreum roseum, also R. Dr. Stocker, Carnations, Cineraria stellata and forced shrubs. The feature of the Devon Nursery, Torquay, was its pot Roses. Messrs. Barr and Sons staged Admiral Togo, Henri Vilmorin (white long-trumpet), Lucifer, Salmonetta, Maggie May and Weardale, with a few alpines in pots. Mr. W. J. Godfrey made a good, bright show with Zonal Pelargoniums interspersed with Ferns, such as Nephrolepis exaltata var. todeaioides. Messrs. Edwards (senior) had "Edwardian" vases.

EAST ANGLIAN HORTICULTURAL CLUB.

THAT ever interesting subject, "Birds in the Garden," was the subject of a most instructive paper given by Mr. H. Goude, head-gardener at The Grange, Old Catton, Norwich, before the members of the East Anglian Horticultural Club at their April meeting. The essayist stated that after twenty years' observation his conclusion was that birds were more foes than friends. True, some were more useful than others; but it seemed to him that the birds did not do their work thoroughly—we had to co-operate with them in the destruction of insect pests, and with the present knowledge of insecticides and equipments we could as well do the work thoroughly as partially. He did not advocate the eradication of birds, as they were part of the country-side life, but their virtues as friends of gardeners were being too much over-estimated. An animated discussion followed the paper.

COLCHESTER ROSE AND HORTICULTURAL SOCIETY.

THIS year the above society held a spring exhibition on April 22 in place of the usual June show, the latter being abandoned on account of a grand pageant taking place at that date. The committee, of which Mr. O. G. Orpen is the chairman and who does so much to make the show a success, certainly deserves to be highly congratulated on the cut-flower classes, in which there were splendid exhibits, both as regards quality and quantity. The fruit and vegetable classes were poor, but the plant groups were good, and there were some really splendid exhibits staged by the trade. The Lilies, Tulips and rock plants of Messrs. R. Wallace and Co., Colchester; Carnations from Messrs. Cutbush, Highgate; and Roses from Messrs. B. and F. Cant, Colchester, were very fine.

The best group of plants came from Mrs. H. de Larpent, Holwood, Lexden Road, Colchester (gardener, Mr. G. W. Richardson), this being composed of excellent flowering plants well set up. Mr. H. Draper, Colchester, was second with a good exhibit, which contained too many plants of Cineraria stellata. For smaller collections of plants there was good competition, and the premier position was secured by H. Goody, Esq. (gardener, Mr. G. H. Spurgeon), Lexden Road. Here bulbs and foliage plants predominated. E J. Saunders, Esq. (gardener, Mr. J. Woods), Lexden Road, Colchester, was a close second, having excellent Arum Lilies, Coleus and bulbous plants. The Right Hon. J. Round (gardener, Mr. H. Bishop), Birch Hall, Colchester, was third.

Dinner-table decorations are always a great feature at Colchester, and, as usual, these were notable for their chaste design and colouring. A noted prize-winner was again to the front in Miss A. F. Harwood, Colchester, with a splendid table, in which Solomon's Seal and Gypsophila played an important part. Mrs. H. Turner, Bure, Colchester, was a good second with Azalea mollis and Grasses; and Mrs. Butcher, Ipswich, third.

There were some very fine exhibits in the class for bowls and vases of mixed flowers, and here Mrs. O. G. Orpen, West Bergholt, was an excellent first, having Azalea mollis and Narcissus Leedsii, Mrs. H. Turner being second with Carnations and Mrs. Cooke, Birch, third.

For a basket of cut flowers Mrs. O. G. Orpen was again an easy first with a splendid arrangement of Arum Lily, Odontoglossum crispum and coloured foliage, Mrs. T. H. Cooke being second and Miss Harwood third. There was a large number of exhibitors in this class. The best bowl of Narcissi was from Mrs. Cooke, Mrs. G. H. Saville, Woodbridge, being second and Miss Hammond third, there being twelve exhibitors.

The class for twenty-four cut Roses was not contested as one would expect in this great Rose centre. Messrs. B. R. Cant, Colchester, were first with a very beautiful lot of blooms. Bouquets were good, and here Mrs. O. G. Orpen was first with a charming arrangement; Mrs. Weller-Copford was second and Miss Harwood third. The last-named exhibitor led for sprays, Miss J. E. Bentley, Tolleshunt d'Arcy, being second.

For collections of Narcissi there was less competition than one would expect for such good prizes. Major W. O. Cantley-Nowton was first for twelve varieties. The vases were a weak class. Messrs. Osborne and Draper won in the order named for Cineraria stellata, and R. Dow, Esq., for other varieties. For Hyacinths in pots Mr. Dow and Miss M. Croydon had good flowers, and for Narcissi in pots Miss M. Croydon had the best plants and Messrs. Dow and Sanders were first in the smaller collections. Mrs. H. de Larpent had the best Mignonette in pots, Mr. Dow being second. The last named was first for Tulips. Mr. Sanders staged excellently coloured Primroses and Polyanthuses in both classes devoted to these.

The best salad in collections came from the Right Hon. J. Round; A. T. Osborn, Esq., was second; and E. J. Sanders, Esq., third. For Rhubarb Messrs. Good, Round and Chapman won; and for Strawberries in pots the prize went to the Right Hon. J. Round, and to Mr. Sanders for gathered fruits. Mr. O. G. Orpen had the best collection of Apples, showing very good dishes, well kept and of good colour.

It was evidently too early for Asparagus, though Colchester is one of the great growing centres. Mr. A. Harwood had the best exhibit, Mr. Chapman being second. For forced Beans, E. J. Saunders, Esq. (gardener, Mr. Woods), was first; A. T. Osborne, Esq. (gardener, Mr. Gibbs), second; and the Right Hon. J. Round third. R. Dow, Esq., Hasketon, had the best Broccoli.

A great feature of the show was the non-competitive exhibits. Messrs. R. Wallace and Co., Colchester, had a very fine exhibit, the Crown Imperials, double yellow and rubra maximus, being most notable. Messrs. B. R. Cant had splendid Roses, the new seedling Cerise being a grand flower, and William Shean was staged in quantity. Messrs. Cutbush, Highgate, had a very fine group of Carnations, staging the new Malmaison Lady Coventry. Messrs. Notcutt, Woodbridge, had a very choice group of forced shrubs in bloom in great variety, some beautiful specimens being staged. Messrs. D. Prior and Sons staged an excellent group of Roses; and Messrs. R. H. Bath, Wisbech, a good collection of Narcissi, Pansies and other spring flowers. Messrs. Dobbie and Co. had very fine Violas, beautifully set up with grand Pansies; and Messrs. Charles Turner, Slough, staged very beautiful Auriculas, the flowers of which required a few more days to be quite open.

NEW BARNET AMATEUR GARDENERS' SOCIETY.

THE members of the above society held their annual spring show at the Baptist Hall, New Barnet, on Saturday, April 17. A good show of Narcissi (cut blooms, in pots and bowls) was made, other exhibits being hardy cut flowers and plants, shrub and tree blossom, table decorations, &c., which made up a very interesting collection. The judge (Mr. T. W. Sanders, F.L.S.) complimented the members on the exhibition, which he said he was pleased to see maintained the high standard of the society. Special prizes were awarded to Mrs. Jones, for table decorations; Mr. Rourke, for three grand blooms of Narcissi; and Mr. Jones, for a beautiful Azalea. The secretaries, Messrs. A. W. Bull and W. Poultney, will be pleased to furnish information to any lady or gentleman residing in the district desirous of becoming a member of the above society. The summer show will be held on July 3 next.

BROUGHTY FERRY HORTICULTURAL ASSOCIATION.

THE usual monthly meeting of the above association was held in the British Restaurant on the evening of April 20, when there was a large attendance, presided over by Mr. William Ross. There were on exhibition some vases of fine Tulips from the Monifieth nurseries of Messrs. W. P. Laird and Sinclair, and half-a-dozen pots of Cyclamen from Mr. Bell, Corona Gardens. The Cyclamen were splendid examples of modern practice, and reflected great credit upon their grower. The lecture of the evening was on "The Cultivation of the Melon," and the author, Mr. J. W. Robertson of Letham Grange Gardens, succeeded in holding the attention of his audience during the delivery of a thoroughly practical paper, in which he dealt fully with the cultivation of this invaluable garden product. Mr. Robertson was accorded a hearty vote of thanks.

READING GARDENERS' ASSOCIATION.

THE final meeting of the spring session took place in the Abbey Hall on Monday, April 19, when there was a very large attendance of members. The president, Mr. Alderman F. B. Parfitt, occupied the chair.

The evening was devoted to the following competitions, all the work being done in the room. Five small vases of flowers suitable for a breakfast table, arranged for effect, fifteen minutes allowed for arrangement (open to head-gardeners, single-handed gardeners and foremen only): First, H. Goodger; second, W. Butler; third, H. C. Loader. Vase of flowers arranged for effect, open to members (head-gardeners, single-handed gardeners and foremen excepted): First, A. E. Bolton; second, H. Prince; third, S. Judd. Bowl of flowers arranged for effect (open to those who had never won a prize): First, E. Webb; second, A. Francis; third, F. Goodger. The judges were Messrs. T. Tunbridge, A. F. Bailey and R. A. Hatton, and their work, owing to the closeness of the competitions, was particularly arduous. This meeting had been selected for the annual hospital night, when members bring flowers, which are next day sent to the Royal Berkshire Hospital. Over 100 bunches were brought in. A collection on behalf of the funds of the above-mentioned excellent institution was made by the association's representative, Mr. F. W. Exler, the sum of £3 1s. being realised. On the proposal of Mr. Tunbridge, seconded by Mr. Exler, Mr. G. Hinton, one of the "Fathers" of the association, was elected a life-member. Votes of thanks were accorded to Messrs. Watson and Son, Minster Street, for kindly lending vases and bowls; to Mr. J. Phillips for the use of the tables; to the judges and to the president. Two new members were elected.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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Offices: 20, Tavistock Street, Covent Garden, W.C.

THE BEST PERENNIALS AND BIENNIALS.

How to Raise Them from Seed.

(*First Prize Essay.*)

THE raising of hardy plants from seeds has much of interest to lovers of this class of plants. Besides ensuring much more vigorous plants, there is always the chance of obtaining among the seedlings something which may be an improvement on the type, either in colour, habit or form of flower. A great many of our ordinary herbaceous plants are quite easily propagated in this manner, and where large numbers are required it is by far the best method of procedure to ensure large stocks at small cost and with only a comparatively short time to wait for results.

Time to Sow.

If sown early many perennials will bloom the first season; but I am not certain that this is advisable, as the plants are thereby weakened and often fail to give satisfaction in after years. While not recommending very early sowing, I am of opinion that June, so often recommended as the proper time, is much too late. For the bulk of hardy perennials I recommend the middle of April or a little later as ensuring much finer plants for setting out in their permanent quarters either in autumn or spring. While all the commoner, strong-growing kinds can be sown on a sheltered border of light soil out of doors, I think very much better results are to be obtained by devoting a cold frame to this important object. I will go further and say that all the finer sorts should be sown in pans or boxes and placed in a cold pit or frame. This not only ensures a better germination, but slugs are more easily guarded against and the sowing of the seed may be undertaken during bad weather, as may also the pricking off of the seedlings. Any good light compost will do for filling the pans or boxes, such as is used for raising half-hardy annuals. Another reason why boxes or pans should be used is because many plants produce very minute seeds, and these, if sown on a border, are apt to be too deeply covered. On a border, too, it is more difficult to keep down weeds; and, indeed, taken all in all, the use of pans or boxes, for all the smaller-seeded kinds at least, has everything to recommend it. Where possible, only one kind should be sown in a box, as there is such a great difference in the time of germination of the various species.

Treatment of the Seedlings.

After the seedlings are fit to handle, they should be carefully pricked off into prepared beds, or, in the case of more valuable kinds, into other boxes. It will at this stage be well to decide how many of each kind is likely to be required, and to prick off only a few more than will fulfil requirements. Label all correctly, as nothing is more annoying at planting-time than to be unable to tell the colours of the various plants required for any purpose. In preparing a border for pricking out seedlings, the ground should be thoroughly well broken up and abundance of leaf-mould mixed with it. This will cause the plants to make numerous fibrous roots, which will lift with a fine ball of earth attached later on. Summer treatment consists in keeping down weeds and frequently stirring the soil among the plants. In warm districts autumn planting is commendable, but in cold, late districts in the North, from the middle of March to the middle of April is preferable. Subsequent treatment is similar to that necessary for plants raised from cuttings or by division.

Kinds to Raise from Seed.

A list of the best plants that may be raised by the method above described may now be given. Acanthus mollis lusitanicus, A. spinosus, Achillea Ptarmica flore-pleno, A. sericea, Adonis vernalis, Alstrœmeria, Alyssum saxatile, A. s. citrinum, Anchusa italica Dropmore variety, Anemones of sorts, Aquilegia, Aster (Michaelmas Daisy), Astilbe Davidii, Auricula, Baptisia, Bocconia cordata, B. microcarpa, Campanulas of sorts, Catananche, Centranthus (Valerian), Coreopsis grandiflora, Delphinium, Dianthus of sorts, Dictamnus, Digitalis, Dodecatheon, Eremurus, Erigeron speciosus, Eryngium alpinum, Francoa appendiculata, Gaillardia of sorts, Galega, Geranium armenum, Geums of sorts, Gypsophila paniculata, Helleborus of sorts, Heuchera, Iberis, Incarvillea Delavayii, Inula glandulosa, Iris of sorts, Kniphofia, Lathyrus of sorts, Linum flavum, L. perenne, Lithospermum multiflorum, Lobelia syphilitica, Lupinus arboreus and its varieties, L. polyphyllus in variety, Lychnis chalcedonica, L. Walkerii, L. Viscaria plena, Malva moschata, M. m. alba, Monarda didyma, Œnotheras, Orobus, Papaver alpinum, P. orientale, P. nudicaule, Phlox, Physalis Alkekengii, Polyanthus, Primrose, Primulas of sorts, Rudbeckia, Scabiosa caucasica, Sidalcea, Statice latifolia, Sweet William, Thalictrum of sorts, Trollius, Veronicas and Wulfenia carinthiaca. Many more hardy perennials are easily raised from seed, but the above should be comprehensive enough for most requirements.

Biennials.

The number of really biennial plants that are of use for garden decoration is very limited, but several of our finest and most useful perennials are often classed as such, and certainly are most

useful and successful when treated as biennials. One has only to mention the single Wallflower to prove the above statement. No one ever thinks of this delightful spring flower as a herbaceous plant, although it is in reality a true perennial. And so it is with several other favourites. A short list of plants that are either true biennials, or perennials that are best cultivated as such, may be here given: Anchusa capensis, Canterbury Bells, Lunaria biennis (Honesty), Meconopsis Wallachii, Myosotis, Œnothera lamarckiana, Onopordon tauricum, Lychnis coronaria atrosanguinea (Agrostemma), Silybum, Verbascum and Wallflower. As with the perennials, I recommend sowing the smallest-seeded varieties in boxes and growing in a cold frame for a time. Of course, Wallflowers, Honesty and Œnothera do not require this care, but I think the others repay the extra trouble. Many sow seeds of these too late to allow of the plants getting into a fair size before planting time. I find that about the end of April is a very satisfactory time for this work here in the North. In the South a month later would do. Prick out in good time, giving plenty of room between the plants, and this is about all that is required, plus a frequent stirring of the soil during summer. Plant in the flowering quarters in October.

Preston House, Linlithgow. C. Blair.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

May 18.—Royal Horticultural Society. Exhibition of Flowers, Fruit and Vegetables, 1 p.m. to 6 p.m. Lecture at 3 p.m., by Mr. A. Clutton Brock, on "Alpines in Their Native Homes." Tulip Society's Show. Royal Horticultural Hall, Vincent Square, Westminster.

Royal National Tulip Society.—The sixteenth annual southern exhibition in connexion with the above society will be held at the Horticultural Hall, Vincent Square, Westminster, on Tuesday, the 18th inst. Full particulars can be obtained from the hon. secretary, Mr. W. Peters, Farcet House, Cambridge.

The Royal Gardeners' Orphan Fund.—The annual festival and dinner in connexion with this praiseworthy fund was held at the Hotel Cecil, Strand, London, on Thursday, May 6, when His Grace the Duke of Rutland, supported by N. N. Sherwood, Esq., presided over 126 guests. Among those present were Messrs. E. Sherwood (treasurer), E. White, W. G. Baker, Dr. Keeble, George Bunyard, J. Collingridge, James Douglas, H. B. May, D. Ingamells, Percy Champion, E. Rochford, Joseph Rochford, John Rochford, C. P. Kinnell, G. H. Barr, B. H. Lane, J. T. Anderson, T. W. Sanders, W. Poupart, G. H. Cuthbert, J. T. McLeod, D. W. Thomson, G. Reynolds, W. R. Alderson, W. Nutting, E. S. Mansfield, G. J. Ingram and W. S. Thomson. The chairman, in proposing the toast of "The Fund," referred to the kind interest taken in it by Her Majesty Queen Alexandra, who is the patron of the fund, and also referred to the Budget and its probable influence on market gardening. Mr. Edward Sherwood, in responding, made a most vigorous and interesting speech, and stated that at present 142 orphans were receiving benefit from the fund. "Gardeners and Gardening" was proposed by Mr. E. White and responded to by Dr. Keeble, in the unavoidable absence of Mr. Leonard Sutton. "The Visitors" was proposed by the vice-president, N. N. Sherwood, Esq., and responded to by Mr. James Douglas. Mr. H. B. May proposed "The Chairman," and Mr. W. Poupart "The Press," Mr. J. Collingridge responding to the latter. The total amount of the chairman's list was about £800, and among the larger contributors were N. N. Sherwood, Esq., and his sons, £100; Messrs. Rothschilds, 25 guineas; Mr. Leonard Sutton, £50; Baron Schröder, 10 guineas; Mr. George Cuthbert, £51 16s.; Mr. George Reynolds, £44 2s. 6d.; Mr. David W. Thomson, £25 4s.; Mr. J. F. McLeod, £21; Mr. E. S. Mansfield, £20; Mr. R. H. Pearson, £17 7s.; Mr. W. Nutting, £15 9s. 6d.; Mr. R. B. Ker, £12 10s. 6d.; Mr. F. Noakes, 10 guineas; Mr. J. C. Eno, 10 guineas; and Messrs. J. Veitch and Sons, 10 guineas. The Covent Garden friends and supporters of the fund contributed £195 10s. 6d. collected by the following: Mr. D. Ingamells, £96 1s.; Mr. E. Parsons, £61 18s. 6d.; and Mr. W. Poupart, £37 11s. As usual, the floral decorations, kindly undertaken by Mr. R. F. Felton, were of a very graceful character, pot plants being supplied by Messrs. J. Veitch and Sons and Mr. H. B. May. Cut flowers were supplied by Messrs. Barr and Sons, Mr. Walter T. Ware, Messrs. T. Rochford and Sons, Limited, Messrs. F. Sander and Sons, Mr. A. F. Dutton, Mr. James Walker, Messrs. Low and Shawyer, Limited, Mr. W. H. Page and Mr. W. Stevens. Excellent arrangements were made by the secretary, Mr. Brian Wynne.

The Isle of Wight Rose Society. The exhibition of the above society will take place at Newport on Monday, June 28 (Coronation Day).

PRIZES FOR READERS.

APRIL COMPETITION.—AWARDS.

In this competition essays on "The Best Perennials and Biennials for the Garden and How to Raise Them from Seed" were asked for. The prizes are awarded as follows:

First prize of four guineas to Mr. C. Blair, Preston House, Linlithgow.

Second prize of two guineas to Mr. Cecil Davies, Stanmore Road, Stevenage, Herts.

Third prize of one guinea to Mr. John Botley, Scarlett's Park, Twyford, Berks.

Fourth prize of half-a-guinea to Mr. W. L. Lavender, Waltham Manor Gardens, Twyford, Berks.

The essays sent in were not quite so numerous as usual, probably owing to most gardeners being very busy outdoors. The quality was also of a widely divergent character.

Those from the following are highly commended: W. H. Morton, Ellamcote, Gloucester; E. G. Extence, 3, South Terrace, Redland, Bristol; C. W. Caulfield, Stanford-le-Hope, Essex; G. Cope, Umberslade Road, Solly Oak, Birmingham; F. Lansdell, Desford, Leicester; and Miss S. Randolph, Chartham Rectory, Canterbury.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

A National Vegetable Society.—As a vegetable-grower for nearly forty years, naturally my sympathies are in accord with the suggestions recently made by Mr. Dean and others in The Garden respecting the formation of a National Vegetable Society for the purpose of stimulating a greater interest, to give more encouragement and, generally, to raise the tone and status of this branch of agri-horticultural industry to the high position its importance as a food-producing agency entitles it to occupy. Considered strictly from a utilitarian and economic standpoint, few will dispute the premier position it is entitled to hold in practical horticulture. But how to secure to this proposed national society the patronage and practical financial support of the general public in so large a measure as to warrant the formation of such a society exclusively devoted to its interest is another matter. We have ample proof in the experience of the Royal Horticultural Society that even in the case of fruit shows, when confined to fruit alone, however instructive or popular they are with gardeners, they entirely fail to arouse the enthusiasm or to secure any practical support to speak of from the public. I much fear we have no good reason or valid ground to hope for better success in regard to vegetables. For such a society to possess a prospect of a permanent and a useful existence it must have some fairly reliable source of income to depend on. It seems to me, therefore, that before a start is made or subscriptions invited to establish such a society, this question should first be faced and solved. It has been suggested that the trade should handsomely support such a project. I have no doubt that it would liberally support any well-considered effort to promote and encourage the higher and more general cultivation of vegetables, as it has done in many ways in the past. But the trade clearly could not bear the chief brunt of the cost of such a society. Neither should it, or the term "National" would be a misnomer. The Garden has been the first to offer support to any practical scheme likely to lead to a successful issue, and I have no doubt that other sympathisers would follow, but whether in sufficient numbers and weight to justify a start remains to be seen. May I suggest that a committee be formed to talk matters over and to find out whether there is a reasonable prospect of success attending such a society if established.—Owen Thomas.

—— I am very much interested in the correspondence taking place in The Garden *re* a National Vegetable Society and Exhibition. I consider it is just what is wanted for us gardeners, especially if small classes are provided similar to those at The Garden Show. I shall be very pleased to put my name down for one member, for I consider that vegetables need more consideration than is provided for them at the majority of shows.—Harry Edwards (gardener to C. A. Barry, Esq.), *20, Sydenham Hill.*

—— The notes in The Garden on this subject will, I trust, be the means of establishing a National Vegetable Society, or, at least, of bringing together those interested in good vegetables. If this is done, The Garden, which has always devoted much space to vegetable culture, will have done good work in ventilating such an important subject. As a grower of vegetables for many years and a lover of the work, I do not think, as one correspondent notes, the difficulty so much concerns the amateur, who takes (as stated) so little interest in vegetables. Practical gardeners and market growers should not rely too much on amateurs for support. Even at most important exhibitions, how often has the real lover of vegetables to fight hard to get suitable awards for his exhibits of vegetables. In framing schedules I have always had to point out that vegetables should be encouraged as much as possible, and I am pleased that at last this fact is becoming more general. As "A. D." so ably points out, to get a strong society there must be much support from the trade; but so far as I have observed the trade has never failed us in any scheme. But to make the society a lasting success we must (I mean those who grow vegetables) give it a hearty support. A show or exhibition is not sufficient; there must be a determination to raise this important branch of the garden to its proper position, and to do this should not be so difficult among the many growers who think that vegetables are too much in the background. I for one do not place so much importance on a few vegetable classes at a show; what we want is much greater interest in the subject. As Mr. Wood points out, there should be ample scope for a national society, and I am sure there is ample room for more varied displays. Many good vegetables are rarely seen, and if some of these were made more popular the general public would benefit greatly.—G. Wythes.

Where to obtain iron hoops.—I think your correspondent "Mrs. W. S." will be able to obtain good discarded iron hoops from a brewery, and probably both iron and wooden ones from a cooper.—HORACE INMAN.

The Almonds and Peaches.—In reference to the interesting article on Prunus which appeared on page 212, a very important variety has been left out, viz., P. Maximowiczii, which was in flower here in December last and is still flowering, as you can see by the specimen sent. No other Prunus can do this, and as a tree for mild localities too much cannot be said for it.—T. SMITH, *Daisy Hill Nursery, Newry.*

Floriferous Crocus.—Replying to the enquiry made by Mr. E. O. Spencer through THE GARDEN of April 10, I could show him a stock of Crocus in which bulb after bulb was recently bearing fifteen to eighteen blooms, and I feel convinced that, had I the time to go over the whole batch (250), I should come across a twenty-bloom bulb, if not more. The stock is Messrs. Dickson's, Belfast. Were it not for making an unsightly gap, I would have had a specimen lifted and forwarded for "The Editor's Table."—B. HUNWICK, *Kelvedon, Essex.*

The Snowy Mespilus in Warwick.—I am sending you a photograph of a tree now in bloom which I believe to be the Snowy Mespilus (Amelanchier canadensis). I do not know of another in this district, and it does not seem to be generally known. The photograph does not do justice to its whiteness or feathery lightness, and, as the least breeze disturbs it, some indistinctness is the result.—T. WARD, *Emscote Road, Warwick.* [The Snowy Mespilus.—ED.]

Treatment of Daffodils after flowering.—Staying recently with a friend, I was invited to admire his Daffodils, a row of about fifty in a small border. They were very good and had been entirely cut off with shears close to the ground immediately after flowering in 1908. I had been previously told this would kill them, but perhaps that is an old-fashioned idea not borne out by fact. Would you tell me? We have bulbs (Crocus, Snowdrop and Daffodil) by the thousand here in grass, and should be only too glad to be able to mow them down directly they had all flowered.—B. C. F., *Blandford.*

Artificial manures.—I reply to "A User of Spent Hops," whose second letter appears on page 223 of THE GARDEN for May 8. Taking his points *seriatim:* He first refers to the moisture in the manure and gives the amount in ordinary spent Hops as obtained from a brewery 68·5 per cent., and suggests that Wakeley's Hop Manure contains 50 per cent. Judging by the condition of ordinary spent Hops as obtained from a brewery, from which moisture can frequently be squeezed in drops, I should not think Wakeley's Hop Manure contains 50 per cent. of moisture. I presume that it would be very difficult indeed to obtain a reliable analysis of the moist material. The second point, viz., the analysis, proves conclusively that Wakeley's Hop Manure is a complete and useful manure, whereas the only plant food present in ordinary spent Hops in any appreciable quantity is nitrogen. Now, anyone who understands manures at all will know that to apply nitrogen to plants without a due proportion of potash and phosphate is to encourage a rank, leafy growth at the expense of flowers and fruit. Although I have no means of obtaining an analysis of ordinary spent Hops other than that given, I very much doubt whether the percentage of nitrogen in the majority of spent Hops is as high as that stated. As mentioned in my previous reply, I have used ordinary spent Hops and also Wakeley's Hop Manure, and it is absurd for anyone to suggest that the former can take the place of the latter. To repeat myself, I say that results gained in actual experience are worth all the analyses put together.—K.

DAFFODIL AND TULIP NOTES.

THE ROYAL HORTICULTURAL SOCIETY'S NEW CLASSIFICATION.

THE sub-committee has completed the first part of its work, and the scheme of division and sub-division is to be sent round to each member of the Daffodil committee with a view to its being presented for adoption at the meeting on May 18. If it is carried the laborious task of placing each flower in its proper division will then be taken in hand.

REGISTRATION OF NAMES.

The discussion which followed a motion of Miss Currey's on May 4 only emphasised the difficulties that present themselves with regard to the registration of names. On the motion of Mr. Wallace the whole question has been referred to the above-mentioned sub-committee for its consideration. As the season is practically ended, there will be any amount of time to think it over and consult the different Daffodil societies. I fancy some members of the committee think that this registration is not within their province; but

THE SNOWY MESPILUS (AMELANCHIER CANADENSIS) IN A WARWICK GARDEN.

if the above body wishes to retain its position, it must undertake all the duties which a national society such as the Rose and Sweet Pea does, otherwise I fear it will be passed by.

MODERN DAFFODILS.

Slowly but surely the Daffodil is becoming a florist's flower. At present it is true that there is no acknowledged standard of excellence, nor any general consensus of opinion which acts as an unwritten law in appraising the merits of individual flowers. There are, however, certain tendencies observable, one of which is to go for size, as if *ipso facto*, given two flowers practically identical in colour and shape, the larger one must be the best. No doubt it is true in many cases; but before it is too late I would venture to plead for the smaller flowers. Could anything be more perfect than Eoster? and yet I wonder if it would receive an award if put before the committee to-day. It will be a thousand pities if all our incomparabilises are giant incomparabilises in ten years' time, and all our Leedsiis giant Leedsiis.

I am led to make these remarks because a very beautiful Leedsii (Mrs. Daniel Spurrell) was submitted to the Narcissus committee last Tuesday week and no one even proposed an award. The reason obviously was that it was not large enough; not that it was so like something else in commerce that it was not needed. This would have been intelligible and proper. Is size to be everything? and is every form of Daffodil increased in beauty by its being made larger? Take, for example, triandrus hybrids. Who that stood before Messrs. Barr's interesting collection of them at the last Royal Horticultural Society's meeting would venture to say that the line of beauty followed that of size?

AT VINCENT SQUARE ON MAY 4

I noted the following new flowers:

Seville (raised by Mr. P. D. Williams and exhibited by Mr. Phillips).—This has a large, distinctly lobed, flat, pale Poeticus red-cup, with a broad, overlapping, white perianth, which reflexes with age. The peculiar formation of the cup is very striking, and, as far as I know, is not to be found in any other flower.

Lindsay Gordon.—This is a very large Poet of the Almira type raised by Mr. E. M. Crosfield. I compared it with several others, and it was as beautiful as any and certainly larger.

Kingsley (Wallace and Son).—Another Poet of the Almira style. It is a good-sized flower of great substance. Its chief beauty and characteristic is its cup, which has a particularly well-defined rim of red running round the deep orange centre.

Warley Scarlet is a fine flower of the Barrii type, with a cream perianth and a large expanded orange cup, broadly margined with a pale orange red. Miss Currey thinks this will be a valuable flower for the hybridist.

Mrs. Daniel Spurrell, which was placed before the Narcissus committee by Miss K. Spurrell for an award, struck me as a very delightful little flower for cutting. It is a medium-sized Leedsii, with a good flat perianth and a cup which has the Mrs. Langtry edge. It has a good long stem.

Delicata is a handsome Leedsii raised and shown by Mr. Engleheart, but now no longer his. It has a pale yellow cup and long, almond-shaped perianth segments. It reminds me of a steering-wheel with the handles enormously developed and the circular part equally diminished.

Peveril is a small flower with an all-red flat cup and a white, much-reflexed perianth. I fancy it would make a very nice subject for a 5-inch pot. It was introduced into commerce last year by Mr. Sydenham.

Groups of Daffodils were shown by the Rev. G. H. Engleheart, Miss Currey, Messrs. Barr and Sons, Messrs. J. H. Veitch and Sons, Messrs. R. H. Bath, Mr. H. D. Phillips, Messrs. Bull and Son, &c.

TULIPS AT VINCENT SQUARE ON MAY 4.

Two nice collections of early-flowering Tulips were shown respectively by Messrs. Hogg and Robertson and Messrs. R. H. Bath, Limited. The latter had a new edged variety, Enchantress. It is a globular flower of a pleasing rosy crimson shade, with an ochre yellow edge. La Remarquable and Eleanora are coloured in a similar way. Messrs. Hogg and Robertson had Jenny, a small but very perfect flower of a beautiful rose shade, sweetly scented and retaining its shape to the end. Some especially good Couleur Cardinals were among the collection. Messrs. Wallace of Colchester had for the most part Darwins in a young ungrown state. The exhibit was interesting as illustrating the difference in the colour of Tulips in their young state and in their old. There were also two vases of Feu Ardent, which is a midseason flower of a deep blood crimson colour with a yellow base. It is a fairly tall grower and retains its shape very well. I also noticed some excellent Le Rêve out from the open. This is a Tulip I can strongly recommend either for March flowering in pots or for out of doors.

JOSEPH JACOB.

IN PRAISE OF LOWLY BEAUTY.

CONVOLVULUS.

OF all the lovely wild things on this earth there is one more lovely than any. It cannot be said of it that it is despised and its beauty denied, nor yet is it rare, but utterly disregarded it is, nevertheless. Generally denounced as a "weed," this lovely twiner, the common large Convolvulus of the hedgerows, has possibilities of beauty not expected of it by most of us.

I think I have seen it in its perfection in two successive summers when passing a dwelling, scarcely more than a large cottage, where lived evidently one who loved the beautiful flower, for he had chosen it as the sole clothing for his porch, which it did in a profusion of immense blossoms.

It needs an artist mind to create pictures out of common material; but there is no occasion to go to extensive gardens and trained gardeners to find evidences of it—many a masterpiece of taste is the work of an untrained hand. Innate artistic perception is found in every class, and in none more than in the working classes, whose little gardens are often of such beauty as is rarely seen in those of greater pretensions.

Here was an instance when real selective taste had attained a most unique and splendid success. Instead of the well-known drapery of purple Clematis, Roses and so forth, the owner had chosen to plant at his threshold, in generous quantity, this one most beautiful weed.

Whether this summer wreathing clothed and hid a soberer winter greening, I am not able to tell. If, however, the humble artist had indeed staked his all on this exquisite picture of summer, it would be at the expense of several months' bareness; but for the time it must have given sheer content—the effect was so sublime.

The large white, luminous cups shone with much the same chaste purity of a group of tall Lilies standing out against a deep green ground. The perfect beauty of form in the wide-cupped chalice, so pure, so innocent and holy—in the garlands of twining green, whose every leaf is a model in shape, setting and colour, and whether in its clinging upward climb or downward drooping sway, absolute perfection of artistic conception, the whole was a poem of colour and of form.

Clear white against clear green, in contrasts alone it is noteworthy, and with the clean-cut moulding, chaste and finished as sculpture, the velvet of the flower, the polish of the leaf, and the beautiful arrangement and poise of the entire spray, one may search the whole realm of Nature and not find anything to excel the wonderful modelling and design, giving such effect of careless, unstudied grace.

It is a commonly accepted fact that this perfection of blossom limps and fades at once when picked, and is therefore useless to us as a decoration for our dwellings; but I have proved this many a time to be a fallacy. It is always found twining among Bracken or some such helpful prop, and if a lovely spray festooned over a victim is wanted, the secret is to pluck them both wholly, and either place them thus together in the vase, or snip away the undesired leafage of the sustaining twig or frond, and under these conditions, if placed in water early, I have known it remain quite good for ten days or more.

It is a plant that must be restricted in its quarters, as it would be unwise to introduce it where it might become a nuisance; but in the informal parts of a garden, on its hedges and palings, entrances, outbuildings, &c., it can be nothing but a pleasure and success. In London it is admirable for draping and covering ugly iron railings.

E. CURGWEN.

THE FRUIT GARDEN.

HOW TO GROW FRUIT TREES IN POTS.

(Continued from page 225.)

PRUNING.

THE pruning of pot fruit trees, especially of Nectarines, Peaches and Plums, to which I now particularly refer, is quite reversed to what it is with trained trees; at least, that is our practice, and we find it to succeed well. We prune our trees (of these kinds of fruits) during the growing season in a great measure, leaving but little to do in the way of shortening the shoots afterwards. Pruning begins, in fact, as soon as the fruits are set. We then shorten all unfruitful shoots to suit the case in view, and later on other shoots when we are sure of a sufficient set at the base. Again, later still, pruning is practised, the final being attended to, if needful, after the fruit is gathered. The aim should be to secure a well-balanced head if it be a standard, or an equal distribution of growth in the case of a pyramid. In pruning, care is exercised not to leave any wood that will ultimately die back. Each cut is made close to a growing shoot, so that the wound heals over, which it will frequently do the same season, just as in the case of pruning dwarf Roses while in the dormant bud. Disbudding (which is a form of pruning) is a regular practice in the case of trained trees. Not so, however, with those in pots. We never disbud these in the spring, but rather aim at the retaining of all the short, spurry wood we can, as this is the most reliable fruit-bearing wood for another season. If any disbudding is done at all, it is in the case of the lateral shoots of the current year, but even then one has to be careful not to foster too strong a growth. We pinch any shoots that appear to be gaining in strength too rapidly, this being far better than any severe pruning at the resting season of the year. (If this line of treatment throughout were followed somewhat with trained trees, I fancy we should hear less of canker.)

FERTILISING.

When the trees have a fairly good proportion of flowers open, our practice is to bring in a hive of bees, and since this plan has been adopted we have never had a failure or the semblance of one. I strongly advise this method of fertilising the flowers, and the more so in any case when situated as we are within the baneful influence of fog and smoke, with the attendant cloudy condition pertaining thereto. Before resorting to this old-fashioned plan our Cherry crop was often an uncertain quantity when the weather was dull in February; now we have to thin almost every tree in a free manner. Of course, the atmospheric conditions maintained at such times are such as to facilitate fertilisation also, but we do not dispense with damping down entirely. The ventilation is attended to on all favourable occasions, in order to render the pollen masses more easy of distribution.

THINNING THE CROP.

This we do cautiously, more so perhaps than many growers who are further removed from the effects of fogs would do. As in other things, however, I am no believer in what is termed "rule of thumb" practice, but prefer to act as one finds it best, in order to ensure a crop. If a large set has been secured, we commence to thin a few of the worst-placed fruits fairly early, but even then we have to exercise caution. A few at a time is the better mode of procedure. When the fruits are the size of Filberts we think it safe to thin more freely, but even then I like to have at least three fruits left to every one that will be allowed to ripen. Again, after that, gradual thinning is the rule, until there are a good few left to be removed when the stoning *i.e.*, the hardening of the stone, is in process.

GATHERING.

This is, in most instances, done with Grape scissors instead of pulling the fruit, the reason being, in the case of some varieties, that the fruit hangs too tightly to the very last, while there is a tendency in some varieties, Nectarine Early Rivers in particular, for the fruits to swell up tightly to the wood, so as to partially envelop the stalk. If these fruits so circumstanced are twisted off there is sure to be a wound or bruise upon the fruit. By cutting the stem asunder instead this is entirely obviated; each fruit with a little practice can be taken off as neatly as possible. Nectarine Cardinal is another instance of swelling up quite tightly to the stem.

JAMES HUDSON, V.M.H.

(To be continued.)

FRUIT NOTES.

LIQUID MANURE FOR WEAK TREES.—Although the majority of amateurs are somewhat apt to over rather than under feed their plants in the greenhouse, room and flower garden, there is no doubt that when it comes to the fruit trees the error is usually in the other direction. In one sense this may be an advantage, for the too-luxuriant tree will never yield satisfactory crops of fruit; indeed, the probabilities are that it will not bear at all. At the same time, a certain amount of feeding is necessary to obtain the most gratifying results, as the fruits improve immensely in appearance and quality under the beneficent influence of good food. The great time for feeding is, of course, during the winter when the roots are at rest, but much good may be done now. The roots are active, the leaves are abundant and demand nourishment; and in the case of trees that do not make as much new growth each season as one would desire, feeding should be put in hand forthwith and followed up consistently, but always with considerable discretion. The first thing to do when it is decided to use liquid manure is to make the soil about the roots and to 1 foot or 2 feet beyond the extreme spread of the branches pleasantly moist; this done, the liquid manure may be applied. In no circumstances whatever is it permissible to apply liquid manure to dry soil, for it is a waste of valuable material and there is an ever-present possibility of doing distinct injury to the tender fibres. If about three gallons of water are given in one day, they may be followed on the next evening with a similar quantity of food, and it is certain that good will result. Just what form the manure will take must necessarily depend upon individual conveniences, and it is not of much moment what is employed provided that it does not contain an excess of nitrogen. It is imperative that this essential food shall be present; but at the same time it must always be borne in mind that it is a wood-maker and that, if used in the slightest excess, it will do more harm than good by encouraging grossness and coarseness, followed by unfruitfulness. The preference should, I think, always be given to natural manures for the present purpose, as if these have been well stored there is a satisfactory balance of the imperative food elements at the disposal of the crop.

STRAWBERRIES.—From now onwards until the crop of fruit is harvested these plants will constantly be demanding attention in some direction or another. No doubt the remnants of the autumn mulching will long ago have been raked off or pricked in according to convenience; but should this not have been accomplished, the work ought to be done immediately. Afterwards the entire plantation should be cleansed so that not a single weed remains. In the alleys the desired result may be ensured by hoeing, but close up to the plants there is an element of danger in using a tool of any kind, and it is wiser to rely upon hand-picking. A dressing that will be found especially beneficial now is soot, sufficient being applied to make the surface

black. A word of warning may be advantageous in this matter. New soot is commonly used, and as often as not results in harm instead of good being done to the plants; if old soot is at command and is dressed thoroughly between the plants, beneficial results are certain to accrue. Provision has always to be made in the culture of Strawberries for keeping the fruit when it is swelling away from the soil, and one of the best methods is to lay down the longest procurable litter early enough in the spring for the rains to wash it perfectly clean; but it is now rather late for this, and it will be preferable to wait a little longer and then put down new straw. One loses in some degree by the latter system, as the manurial value in the litter is not present, but there is the satisfaction of knowing that the bed for the fruits will be as good as it is possible to provide; the little loss of food can easily be compensated for by the judicious application of concentrated fertilisers. FRUIT-GROWER.

TREES AND SHRUBS.

DAPHNE BLAGAYANA.

AMONG shrubs which from their dwarf stature combined with their other good qualities make them singularly appropriate for grouping among rock plants, the Daphne family must always be regarded as among the best. The subject of this note, though by no means a new plant, is as yet unrepresented in many gardens where selections of hardy plants are specialised. Less rare than Daphne rupestris, it shares with that species and Daphne Cneorum the distinction of having equal beauty and fragrance, while through the ordinary channels of commerce it is comparatively easy to procure. The flowers are produced in April in the terminal points of the branches, cream-coloured (ivory-white) and deliciously fragrant, and borne in dense, crowded heads, thereby adding greatly to their effect when viewed upon a well-flowered specimen. Daphne blagayana is not difficult to grow provided the soil is cool and well drained. I have always found it succeed best in positions fairly well shaded, and in soil formed of equal quantities of peat and loam. A frequent mistake is to graft this plant upon stocks of the common Daphne Mezereum, which is quite unnecessary, as it grows freely upon its own roots; in fact, where a plant arrives so grafted, I suggest that it be at once layered, as practised with Carnations, and so induce each shoot to take up a separate existence. No difficulty presents itself to any amateur in performing this operation, and if the shoots formed every year are so treated each autumn, in a comparatively short time the owner will rejoice in a mass of this plant of which he will be justly proud. Pieces of stone are placed upon the branches after layering, first covering the stems with some soil; the stone assists in keeping the soil cool, and at the same time imparts a picturesque setting to the group. Daphne blagayana is an evergreen species from the mountains of Carniola.

Walmsgate Gardens. THOMAS SMITH.

THE GOLDEN BELL.

FORSYTHIA SUSPENSA, popularly known as the Golden Bell, is a charming shrub with its long graceful shoots and picturesque appearance. It is especially lovely in March, when it is covered with little golden bells, which come out before the leaves. It should be planted in a fairly sheltered spot away from rough winds, and will grow to a height of 10 feet in any soil that is neither too stiff nor too light. The flowers appear on the new wood; it is therefore advisable to prune away some of the old wood when the shrub has finished flowering. DOROTHY PAGE-ROBERTS.

THE KITCHEN GARDEN.

SUGAR PEAS FOR SUMMER USE.

THE Edible-podded or Sugar Peas are not nearly as much grown as they deserve, and I feel sure amateurs would find them a welcome addition to the summer vegetables if the seed was sown so that the best results were secured. There are not many varieties, and I will note the best, though some of the Sugar Peas grown on the Continent are well worth culture in this country, and there are some excellent sorts grown for the Paris market. I should state that these Peas differ from the ordinary type, as the pods are cooked whole in a young state and they are remarkably sweet, but they must not be allowed to get old. By many persons they are much liked as a dressed vegetable, and they are delicious when served hot with butter, but they may be cooked in various ways and are always liked for their sweet, delicate flavour.

My note more concerns the summer; indeed, I do not recommend them for other seasons, though I have had good pods well into the autumn; but to get the best results the pods should be grown quickly. In America the Sugar Peas find much favour, and some of the varieties grown in the States have very large pods, so large that when cooked whole they make a most handsome dish. The Mammoth Gray Seeded Sugar is one of the largest; this is a tall grower in good land, often exceeding 5 feet in height. It is a splendid bearer and a great favourite in the market. Another very fine variety is Henderson's Melting Sugar (5 feet), producing large pods, which are very tender if cooked when about three-parts grown. This and the Mammoth noted above are the largest of the Edible-podded section; an older form is the small Gray Sugar, somewhat like the last named and an excellent table variety. A very distinct American sort is Early Sugar, a 4-feet high variety of fine quality; this is the earliest of all those noted above, and I would advise a trial for first supplies, as it is of such good cropping quality.

Of better-known varieties in this country, Carter's Giant Edible-podded is a very beautiful Pea, and one that is equal in quality and crop to the Continental varieties. It is a delicious vegetable and grows about 5 feet in height. If sown three or four times during the season this will give a succession of fine pods well into September. The French Sugar Peas, of which there are several forms, as I have had both tall and dwarf sent me, are well known on the Continent. I need not describe varieties any further. For an early supply seed should be sown in good land on a sunny border. For later use I prefer deep drills or trenches in a very light soil, and some decayed manure in the bottom of the trench, giving the plants plenty of room and taking care not to sow too thickly. Seed sown in April, May and June will give a full summer supply, the crops following each other in the order sown. G. WYTHES.

OUTDOOR TOMATOES.

FOR people with no convenience for raising plants under glass, Tomato-growing outdoors presents some difficulties. I am convinced that the weather plays a prominent part towards success or otherwise; but there are one or two essential details which the inexperienced person is apt to overlook and which very often are the causes of failure. In the first place, it is important to have strong, well-established plants at planting-out time. Instead of planting them out of small pots which they have been starving in for two or three weeks, they should be potted up into larger pots and kept in a sheltered position where they can be conveniently covered at night in case of frost. Have the site prepared ready for receiving the plants when the weather is suitable for planting them out—that is, when it is warm and genial; it is better to wait a few days than to put them out during a cold spell.

Choose the warmest site in the garden for growing them in. If a wall or fence with a south or west aspect is not available, then a position in the open where they can be exposed to the sun during the greater part of the day is the next best. Should the soil be cold and heavy, it must be well broken up and liberally mixed with burnt garden refuse, wood-ashes or something of a like nature; but light soil must be enriched with well-decayed manure.

The plants must be attended to in the matter of watering till they are established in the new soil. Securely tie them to strong stakes and remove all side shoots as they appear. When two or three trusses have set, the plants will receive great benefit by top-dressing them with some decayed or horse manure.

Frogmore. E. HARRISS.

DAPHNE BLAGAYANA IN A LINCOLNSHIRE GARDEN.

THE ROSE GARDEN.

SOME OF THE BEST WHITE ROSES.

IF there is one thing that the amateur or beginner in Rose-growing finds more difficult than another, it is in the selection of the best varieties to grow. The multiplicity of names is appalling. It is with a view to helping such readers that notes will be penned from time to time on the principal colours. Taking white Roses for our subject on this occasion, the question arises, Which is the *Best White Tea Rose?* It is Niphetos, with its beautiful large flowers of great delicacy. It is certainly the best white Tea Rose, but it is not everyone who can grow it. There is a variety named Elise Fugier, which is far better for outdoor culture, although Niphetos will still hold its own as a forcing variety.

Souvenir de S. A. Prince is a fine sport of the old Souvenir d'un Ami, perhaps for the amateur the best white Tea Rose, although it "hangs its head." On a standard it is very beautiful. For the exhibitor he will want nothing better than

White Maman Cochet, unless the new W. R. Smith will surpass it, which, I think, is doubtful. The best white Hybrid Tea at present is

Kaiserin Augusta Victoria. This variety, however, cannot be grown by everyone. What, then, is the best variety of this popular group? Some might say L'Innocence, but I cannot endorse this. It is very pure in colour and grows well, as it should, seeing it is of the Caroline Testout tribe, but its petals are too delicate to withstand rain. There is a Rose not yet much known which I believe will prove to be the best white Hybrid Tea. This is Lady Calmouth; it is a splendid sort. When *The White Killarney* becomes established it may prove to be our best white Hybrid Tea; but mildew sadly mars the old variety, and doubtless the white sport inherits this bad trait in an otherwise glorious Rose.

THE NEW PRIMULA FORRESTII. (*Natural size. See page 247.*)

Albatross was finely shown at a recent meeting of the Royal Horticultural Society. There is a faint blush tint on its otherwise pure white petals. For exhibitors it will be a great acquisition, but it has not the vigour we require for a garden variety, although it is a great improvement on White Lady and Tennyson. There will be no hesitation as to which is the best white Hybrid Perpetual, for everyone will say

Frau Karl Druschki. What a glorious flower and how marvellously pure are its snow-white petals!

Let raisers try and give us a fragrant Frau Karl Druschki and we shall be grateful. Merveille de Lyon is a glorious Rose, especially in autumn, when its huge, cupped-shaped blooms are faintly tinged with delicate pink. Of the group known as Noisette Perpetuals, which many group with the Hybrid Perpetuals, the best is perhaps

Boule de Neige. The exquisite form of a perfect flower is a never-failing pleasure to see. Baronne de Maynard has less defects in malformed buds, but it does not possess the beautiful shape of Boule de Neige. What, to my mind, is better than both of these is

Mme. Fanny de Forest. I would recommend this Rose for trial. The best white dwarf Polyantha Rose is

Katherina Zeimet; it is a grand towering cluster of snowy white flowers that are most decorative. Among the China or Monthly Roses, *Ducher* is the best white. That sturdy group Rosa rugosa can produce no purer white variety than *Blanc Double de Courbet*, although Souvenir de Philemon Cochet was said to surpass it. How exquisite are its dazzling white, expansive flowers in the early June days and throughout the summer and autumn! The single white is very charming, but Blanc Double de Courbet must, I think, hold the palm. If the white sport of Conrad F. Meyer, named Nova Zembla, should prove to be pure white, it must take a high place among garden Roses, but I have not seen it outdoors.

Of what are known as summer Roses, no one can omit planting Mme. Plantier, Mme. Hardy or the white Moss, Blanche Moreau, and every garden should possess a bush of the charming little double white Scotch Rose. Of white climbing Roses, can anything compare with

Mme. Alfred Carrière? Certainly one cannot say it is pure white, but the effect of a mass of this Rose is white. I can endorse all that has been recently said in praise of this lovely sort. I have lately pruned some huge bushes of it in a lovely Devonshire garden, and I am told armfuls of its blossom-laden branches were cut last Christmas Day.

Aimée Vibert still holds its own as a white climber, and undoubtedly it is one of the best.

As to Rambler Roses, the best must assuredly be *White Dorothy Perkins.* Of the true multiflora group I think I should give the highest place to *Grüss an Zabern.* It is very beautiful and blooms about the third week in June.

Waltham Bride is deliciously fragrant, and will give its wreaths of bloom when the Penzance Briars are in flower. For mingling with these it will be a great help. Of the older Rambler Roses we cannot overlook the merits of Félicité Perpétue, Bennett's Seedling or Mme. d'Arblay.

It will thus be seen that a very charming garden could be fashioned from white Roses alone.

P.

THE FLOWER GARDEN.

CANTERBURY BELLS AND THEIR CULTURE.

DURING the early summer months there is not a brighter occupant of the border than a well-grown Canterbury Bell (Campanula Medium), and as a stock of good, healthy plants is easily raised from seeds, they deserve to find a much more prominent place in all gardens where a bright floral display is appreciated. Although not strictly biennials, these plants are usually grown as such (*i.e.*, the seedlings are raised one year, flowered the next, and then thrown away, or die). Sometimes plants will survive for another year and flower very well, but as young ones are so easily obtained the system is scarcely worth the trouble.

A good time for sowing is early in June, as by so doing strong plants are secured which will stand the winter with impunity. Seeds of separate colours can be obtained, or a packet of mixed will give good returns in the way of flowers; generally, however, there is a preponderance of dark blues in the mixture. A moderately good, but not over-rich, plot should be chosen for the seed-bed, and after being well dug and made rather firm, and the surface finely raked down, drills 1 inch deep and 1 foot apart should be made. At this time of the year the soil will in all probability be very dry, and it is, therefore, essential to successful germination that the drills be well watered before the seeds are sown. After this watering scatter the seeds thinly along the rows and cover with fine soil. Should the weather remain dry, other waterings must be given as often as required until the seedlings appear.

The work now will consist of frequent hoeings and weedings, and when the plants are about 2 inches high, advantage should be taken of a wet day to get them transplanted. Many growers make the mistake of allowing them to remain in the seed-bed until required for placing in their permanent positions in autumn or early spring, with the result that they become drawn and weak and frequently succumb to the severe winter weather; even if they survive they are as rubbish compared with the transplanted specimens. The seedlings should be put out in rows 15 inches apart and 9 inches between the plants, watering them after the mowing until they have become established, after which they will require no further attention, except an occasional hoeing, until planting-out time.

As mentioned above, Canterbury Bells may be put into their flowering quarters either in autumn or early spring, the former period for preference. For filling beds, 1 foot apart each way will be a good distance, and for the front of a border or similar position, a clump of three, placed in the form of a triangle, usually proves the most effective, especially if the units of the clump are all of the same colour.

When the flowers appear, stakes will be necessary, as the blossoms are naturally heavy for the stems. After the flowers have faded they should be promptly cut off, but without any stem; then incipient flower-buds at the bases of these old ones will quickly develop and thus prolong the floral display over a long period, especially if the plants are given a watering with weak liquid manure about every ten days.

In addition to their value for garden decoration, the use of Canterbury Bells for embellishing the cool greenhouse in spring should not be overlooked. Those who possess unheated frames or greenhouses will find in these plants just what they require. At planting-time in the autumn a few of the best specimens should be selected and placed in properly drained pots of sufficient size to well take the mass of roots, ordinary potting soil answering very well. These can then go into the cold frame until February, plunging the pots to their rims in ashes, after which they may be placed in the greenhouse, where they will gradually come along and open their flowers several weeks ahead of those grown outdoors. The pink and white varieties are best for indoor culture, the dark blue sorts being rather oppressive. In addition to the type, there is the cup and saucer variety, known botanically as calycanthema, and also double-flowered sorts, which find favour with some. All are obtainable in several colours.

THE HARDY PRIMULAS.

FEW genera contain more well-known and popular garden plants than the genus Primula, which embraces such familar flowers as the Cowslip, the Primrose, the Polyanthus and the Auricula. It is a somewhat extensive family, embracing, according to a recent monograph of the genus by Messrs. Pax and Knuth, 208 species, most of which occur in the temperate regions of the Old World. More than half of this number (129) are found in the Himalayas and on the Chinese mountain ranges, so that this region is evidently the headquarters of the Primula family. In Europe some thirty-one species are found, while the rest are spread over Western, Central and Northern Asia, excepting ten found in Japan and seven in North America. With very few exceptions all these various species are hardy in this country, and, although the conditions under which they are found in their native habitats must be of a widely divergent nature, it is possible to grow successfully, under practically the same conditions, plants whose homes are in China, Japan, the Himalayas, Siberia, Switzerland and California. It naturally follows that, with so extensive a genus with regard to the number of its constituents and the wide area over which they are spread, there should be considerable confusion as to names. The number of synonyms are very numerous, and as the Primulas, especially those found on the European Alps, have such a tendency to hybridise, we have almost an endless list of names of species, varieties, sub-varieties and hybrids. In the monograph referred to, however, they are reduced to a certain amount of order, which lessens the confusion to a considerable extent. Pax has classified the Primulas botanically, dividing them into twenty-one sections, according to their affinity. For garden purposes, however, they may be generally divided into two, or at most three, great groups. There is the group of rock-loving species represented by P. Auricula, which are found on the European Alps and which require to be grown in rocky crevices in the rock garden. Many of these, however, will also flourish in the open border in many places. Next comes the group of moisture-loving species or bog plants, represented by P. rosea, P. farinosa and P. japonica among others. Some of the stateliest Primulas are included in this group, which is of great horticultural value. Last, but not least from a decorative point of view, there is a section that is suitable for growing in the ordinary border or in beds. Of this the best known are the Cowslip, Oxlip and Primrose, from which is derived the popular Polyanthus, found in nearly every garden.

THE GOLDEN BELL (FORSYTHIA SUSPENSA). (*See page 241.*)

Owing to the diversity of habit and various requirements of the many members of this genus, it is not possible to deal with their cultural requirements as a whole. This will be dealt with under each species as it comes in alphabetical order, which is most convenient for reference. Although practically perennials, many of the Primulas are short-lived in this country and die off after flowering. It is thus necessary to make annual sowings of these in order to keep up a stock. The best time for sowing Primula seeds is as soon as they are ripe, as if kept during the winter and allowed to become dry, those of many kinds do not germinate for a year or two, and frequently not at all. In the case of P. japonica, self-sown seedlings come up in great numbers around old plants that have been allowed to shed their seeds; but if gathered and kept for a time the seeds take a long time to germinate. On the other hand, some of the Primula seeds retain their vitality for a considerable time and may be successfully raised after being kept for two or three years. W. IRVING.

(To be continued.)

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Roses are now growing rapidly and green fly has already made an appearance on the tender young shoots. Unless prompt measures are taken to eradicate this pest, serious damage will be done in a short time. Where only a few plants are grown, it is an excellent plan to remove the

1.—THE WRONG WAY TO STAKE A ROW OF SWEET PEAS. THE STICKS ARE TURNED INWARDS AT THE TOP AND TOO MANY ARE USED.

insects by drawing the thumb and forefinger up the affected shoots, having a bucket of weak insecticide at hand in which to repeatedly dip the fingers and thus cleanse them of the aphides. Where many are grown, however, spraying with some insecticide, preferably one in which nicotine predominates, must be adopted. I have found West's "W.E.O.N." insecticide (guaranteed strength) quite safe and effective for the purpose when applied strictly according to the vendor's directions. Maggot must also be keenly watched for, and where any leaves are found to be curling the cause must at once be ascertained; if a maggot is present it must, of course, be promptly destroyed. It will shortly be necessary to lift bulbs which have occupied beds or other prominent positions which summer-flowering subjects are to occupy, but the longer they can be left the better will it be for them next year. We must remember that after flowering the plants store up food and energy for another season, which, of course, they cannot do if not properly treated. Where they must be lifted while the foliage is still green, they should be laid in trenches in some out-of-the-way spot, covering them with a rather greater depth of soil than they were previously. If dry weather occurs just after this removal, a good soaking or two of water will be beneficial. Pansies and Violas should have all dead blooms removed promptly, as by so doing the flowering period is greatly prolonged. A 2-inch thick mulching of very short, thoroughly decayed manure will be of great benefit to the plants at this season.

Vegetable Garden.—A sowing of late Peas should now be made, as these will be very welcome when the earlier crops are finished. It is absolutely essential that the ground be deeply dug and well manured, so that the roots can go down in search of moisture, as drought is the greatest enemy to late Peas. Sow in rows in shallow trenches. Where a tall variety can be accommodated, Ne Plus Ultra is excellent, growing as it does from 5 feet to 6 feet high; but those who desire a shorter variety should sow Gladstone, which attains a height of about 3 feet 6 inches, and is a sure cropper and of splendid flavour. The fly which is the parent of the Onion maggot is generally at work about this period. It lays its eggs in the tender leaves, and when the maggot hatches it eats its way down right through the bulb and into the soil, thus ruining the plant. Spraying with a solution of paraffin emulsion should be adopted as a preventive, as the fly does not care for the scent of this substance and consequently gives the plants whereon it has been used a wide berth. Runner Beans will now be coming through the soil, and as slugs are exceedingly fond of these and French Beans, steps must be taken to ward off attacks. Dusting soot around, not on, the young plants is good, or finely sifted coal-ashes may be sprinkled on the plants, taking care to repeat the operation after rain has fallen. Keep the hoe going between all crops that are up sufficiently to be seen, as great good will be done thereby.

Fruit Garden.—Morello Cherries are frequently grown on north walls, and as these fruit on the wood of the previous year's growth, it will be well to give the shoots which are now growing some attention as regards thinning. Sufficient must, of course, be left to take the places of those which are bearing fruit this year, and the strongest and best-placed should be retained for the purpose. There will, however, be a number of weak and misplaced growths, whose removal will be of considerable benefit to both this and next year's crops. Remove a few at a time at intervals of three or four days. Black fly will probably be troublesome on these and also sweet Cherries, and spraying with a nicotine solution should be adopted.

Greenhouse and Frames.—Young plants, both from seeds and cuttings, will be growing very rapidly at this period, and repotting must be attended to as the pots become full of roots. Insect pests must also be carefully watched for and promptly dealt with when discovered. Ventilation, shading and watering will demand a considerable amount of time, but neither must be in the least neglected. Auriculas have now finished flowering, and if they are to be kept in pots they should be placed in the coolest frame and be well shaded and ventilated throughout the summer, otherwise growth will be soft and unable to stand the winter properly. Where an increase of stock is needed, offsets may be taken off as advised and pictorially explained in these pages a few weeks ago. Perpetual-flowering Carnations should be planted out at once where it is intended to so grow them for the summer.

H.

STAKING SWEET PEAS.

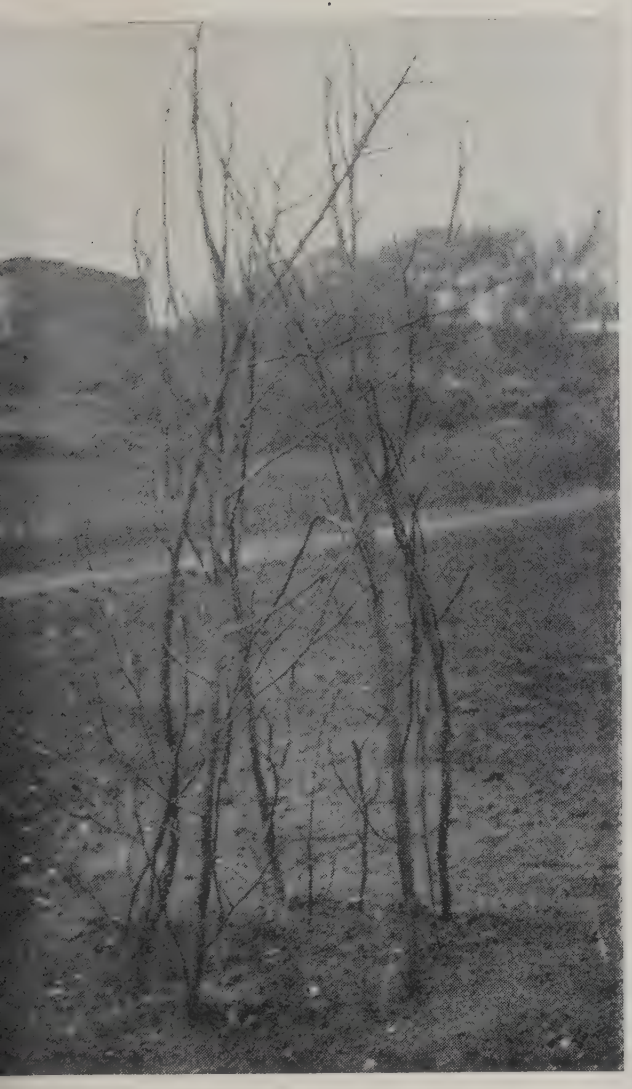
THE staking and tying of Sweet Peas is a more important matter than most people are disposed to admit, and notwithstanding repeated notes and advice given on this subject, one meets with a repetition of careless or indifferent staking each succeeding year. It is one thing, however, to suggest staking Sweet Peas and quite another thing to find the necessary stakes. In the suburbs of London Sweet Pea-stakes are scarce and expensive, and seldom are they of a length that full justice will be done to the plants in the course of a season's growth. Country growers have an advantage over their town and suburban rivals, in that they have at hand, in almost every centre, a plentiful supply of stakes of the very best kind. There are several substitutes for ordinary Pea-boughs, but few of them commend themselves to the goodwill of the practical grower.

Pea-sticks as supplied locally are usually about 8 feet in height, and for most suburban growers these stakes are quite tall enough. Those who can, however, procure taller stakes should certainly do so, and growers should be prepared to pay extra for such.

In Fig. 1 the stakes are altogether too short and there are far too many of them. Note how the stakes are turned inwards at their apex, thus bringing to a premature conclusion the display the plants may be making when they attain the summit of the stakes. In Fig. 2 we have represented a section of a row of Sweet Peas staked with Sweet Pea-boughs some 10 feet in height. Contrary to the general rule of the past, the head of the stakes turn slightly outwards instead of inwards. The growths may

2.—THE PROPER WAY TO STAKE A ROW OF SWEET PEAS. NOTE THE SPREADING TOPS OF THE STICKS.

ramble over these boughs without becoming entangled, and more light and air may pass through the plants to their advantage when the growths become crowded. This system of staking also promotes growth over a longer period. In staking plants in rows, it is our practice to insert small, spriggy stakes or seared growths of the Michaelmas Daisies until growth is vigorous and the need of taller stakes is apparent. A



.—THE WRONG WAY TO STAKE A CLUMP OF SWEET PEAS. THE STICKS ARE TOO CLOSE TOGETHER AT THE TOP.

reful observation shows that the stakes are by means crowded, but just a sufficient number e used to adequately support the growths that ll ultimately evolve. Stakes are sometimes justed in a perfectly upright position; but hile this is a good system, it is not so satisctory as is the case when they are turned twards. When the stakes are placed in a nting position, much of their height is lost in nsequence; this is a sufficient deterrent in itself, art altogether from any other consideration. Fig. 3 portrays the wrong method of staking veet Peas when grown in clumps. This is an satisfactory way of staking them, although ere is ample room at the lower part of the kes for the plants to grow quite satisfactorily. e have to remember that in the late summer, nen the haulm has reached the apex of the kes, that the turning inwards of their heads events further growth being made, and a ngled form of growth will of necessity olve. This state of affairs must be strictly oided at the outset. In order that the oper way of staking Sweet Peas in clumps y be better understood, we have portrayed Fig. 4 a clump of Sweet Peas staked in oper fashion. Here it will be observed the kes turn outwards; only a slight inclination twards is necessary. Should the lower portion the stakes that are used be rather spare, or e from those twiggy branches that we turally desire, short, twiggy stakes should be erted to carry up the growths to the branch- portions of the larger stakes inserted for ir support. It will also be necessary to tie growths to the stakes from time to time in er the better to control them, and in this way ulate their growth to some extent.

NEWLY PLANTED SHRUBS.

RING the next few weeks will be the most ing time for shrubs that were planted in the n garden this spring, and it is now that many h die, owing to the omission of a little attention to their requirements, and especially does this apply to those of an evergreen character. Dealing first with the deciduous shrubs, which, of course, include Roses, it is quite probable that these have made a good attempt to grow, and green shoots give evidence of this attempt. Such shoots, however, are frequently somewhat misleading to the beginner, luring him on to think that all is well, when such is not always the case.

If the weather is naturally rainy it is practically certain that the shrubs in this condition are doing well, but it is in the event of severe drought that danger is likely to accrue. A shrub planted this spring, even if it has done exceedingly well, will have made only a comparatively few new roots, and those of limited length and tender character; consequently, if the soil becomes dry they are killed and the shrub succumbs. I have seen such plants die off after having made several inches of new growth, and the owner has been at a loss to understand why. A good soaking of water once a week, and a mulching over the roots with short manure, will probably save the life of many spring-planted shrubs should the weather prove hot and dry. Evergreens are usually planted late in spring, and these suffer even more from drought than deciduous specimens, hence there is greater necessity for looking after them. In addition to the waterings and mulchings noted above, they should be syringed twice daily during dry weather until it is seen that new growth is active. The above points may appear of a trivial character, but putting them into operation frequently means saving the lives of valuable shrubs. K.

WORK AMONG THE STRAWBERRIES.

THE flowers of these in most localities are now open and give promise of a splendid crop of luscious fruits in the near future. The beginner in gardening usually attempts to grow his or her own Strawberries, and rightly so, as they are worth ten times the amount that the squashed, dirty examples usually sold are. A few cultural items will now need attention if we are to gather the fruits in perfection, and the mention of them here may be of value.

The first point to consider is the maintaining of the fruits in a clean, non-gritty condition, and this is usually done by placing some strawy material between and around the plants. Many gardeners place long stable manure between the plants early in April, and by the time the fruits are ripening this has been washed clean and answers the purpose admirably, besides having previously provided the plants with a certain amount of nourishment. Where this has not been done, however, recourse must be had to clean straw, or, failing this, spent tan from a tanyard will answer. Never use hay or the mowings from the lawn. Although these do no harm should the weather prove dry, they quickly cause the fruits to decay during a wet season.

Before placing the litter in position all weeds must be destroyed and, if large, cleared away, afterwards giving the surface of the bed a dusting of soot sufficient to make it black. This will keep slugs away. The litter should be tucked well under the trusses of bloom, so that the resultant fruits rest upon it, and it is necessary to practically cover the whole of the soil between the rows, otherwise the fruits will get splashed when heavy rains fall.

All runners must be removed as soon as seen; but where it is desired to increase the stock a few plants should be allowed to retain their runners for the purpose. These should be specimens which are flowering freely, and after being duly noted the blossoms should be removed, so as to throw the whole of the plant's energy into the formation of runners; never propagate from a barren plant, as the trait is apt to be transmitted to the progeny.

Birds, of course, are exceedingly fond of the fruits, and steps must be taken to check their depredations. Undoubtedly the best plan is to construct a wooden framework over the bed some 5 feet high, and over this stretch old fish-netting, which can be obtained very cheaply from advertisers in THE GARDEN. This must be lashed together so that no holes are left, else the birds are sure to find them. Failing the wooden framework, forked sticks, some 18 inches long, may be thrust into the soil among the plants and the nets placed over these, the forked end of the sticks being uppermost, so as to hold the nets free from the plants. H. W.

HINTS ON MANURING FLOWER-BEDS.

As certain kinds of bedding-out plants thrive best, and are most satisfactory, when grown in a comparatively poor soil, it is unwise to manure all the beds in the same proportion where several kinds of plants are to be ultimately bedded out. For example, we may refer to Zonal Pelargoniums. These plants would not be successful if they were grown in a very rich soil, because the shoots would be too gross and sappy and flowers would be few in number. A medium rich soil is best for these plants. Nasturtiums would prove still less satisfactory in a very rich soil with regard to freedom of flowering.

Violas, Pansies and similar kinds must be grown in a rich soil, because the plants produce flowers so freely that sufficient new growth would not be made to maintain the succession of bloom if the rooting medium was poor in quality. Tuberous Begonias like a liberal quantity of manure in the soil, but it must be short and well-rotted. Calceolarias must be grown in rich soil, and in their case the manure ought to be mixed with the soil several inches below the surface, so as to induce the roots to go downwards in a cooler rooting medium.

Plants such as Maize and the Castor Oil, which are grown for their beautiful leaves, must always be put in rich soil. These few examples will be sufficient to guide the beginner in the preparation of the borders for various kinds of bedding-out plants, so that the latter will give every satisfaction. SHAMROCK.

4.—THE PROPER WAY TO STAKE A CLUMP OF SWEET PEAS.

THE TOWN GARDEN.

Lawns.—The warm, sunny weather we experienced in April, followed by the light showers of rain, caused the grass to grow rapidly. It will now be much more easy work to cut the lawn grass, as the latter is quite young and tender, and not tough like the old grass was; but the younger blades of grass soon clog the cylinder of the machine, and, unless it is constantly cleared away the work will be harder and the lawn present a furrowed appearance. If the grass has grown rather long, set the cutting-knife a little higher than usual and so mow the lawn. Then put down the knife to the usual level and once more mow the lawn, passing the machine over it in the opposite direction this time. By following this plan the lawn grass will be brought into very good condition again.

Grass Edgings.—It is advisable to trim grass verges late in spring, so as to escape late frosts. They are usually cut during the winter-time, and afterwards left exposed to the frosts, with the result that the new edges crumble away again, and, of course, this means that paths and flower-beds are unduly widened if the verges are cut again after the frosty period is past, or, if left uncut, they present a ragged appearance throughout the summer, so that amateurs will readily see how important it is to cut the verges at the proper time. Furthermore, the grass can be trimmed more easily every week throughout the summer months when the verges are firm and clear.

Rockeries.—These are just now looking very beautiful, and everything must be done to keep them in good order. Weeds must not be allowed to grow, and where it is found that the soil is dry, water should be given without delay. Many town garden rockeries are composed chiefly of stones or similar material, and very little compost is placed among them for the various plants to root in, so that it is really very necessary to be on the alert and prevent any of the plants suffering unduly from lack of moisture. Although the weather may be rainy, all plants growing on rockeries do not get sufficient moisture, chiefly on account of the wrong way in which the rockeries are built. Many kinds of plants grown on rockeries like plenty of moisture at the roots, but they also require thorough drainage.

Pansies.—Seedling Pansies make splendid summer bedding plants, and if the faded flowers are regularly picked off, so that seed-pods do not form, a prolonged display of blossom will be the result. At the present time all flower-buds which are showing on spring-raised seedlings must be removed, so as to get nice bushy specimens for putting out in due course. In the meantime get the beds ready for the plants. Pansies thrive in a deeply dug, well enriched soil, and such a rooting medium must be provided for them. If the soil is very poor, the plants do not make much growth and the flowers are also small. I know that many amateurs do not trouble to make their border soil very rich for Pansies, simply because the latter are plants that are easily grown; but they cannot be grown really well without very careful treatment. Of course, it is necessary to decide upon the position of the beds before the soil can be got ready for the plants. Pansies will do well in almost any position except one which is too much shaded; if unduly shaded the stems become drawn and weak, and the flowers borne on them are small and puny too. If the roots are grown in a moist soil, the plants do not degenerate when exposed to the full sunshine.

Polyanthuses and Primroses.—Directly the flowers have faded on these plants, the latter must be lifted and replanted in a border which is shaded from the sun during the middle part of the day. If a north border is available it will be an ideal place for these plants, as they thrive best in cool quarters in summer. Avon.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Flower Garden.

Bedding Plants.—These will now require very close attention to hardening prior to planting them out into their summer quarters. Where there are ample means provided, such, for instance, as cold frames, those plants which may have been growing in vineries and other warm structures may be transferred to them, and with a little care and attention as to airing, shading in very bright weather and covering up the frames on cold nights, the stems and leaves will soon be sufficiently hardened to have the lights removed entirely. Any of the hardier plants may be put out at once, but the more tender kinds should not be planted till the end of the month.

Preparing Beds.—As fast as the spring bedding is over, the beds should be got in readiness for the summer occupants. Polyanthuses and many other plants for flowering next spring may be divided and planted at once on suitable borders in rows 9 inches apart, keeping the colours and varieties correctly labelled. Asters, Stocks, Zinnias and similar plants must, if not already done, be boxed off or pricked out in frames in a nice, sweet, sandy soil, and should not be unduly exposed for some time.

Rose Cuttings.—See that these are made firm if loosened by frost, otherwise they will fail to root. Press down the cutting and tread the soil firmly along the rows.

Fruit Garden.

Peaches and Nectarines.—These have flowered well and set ample fruit, and there is a conspicuous absence of leaf-blister (Exoascus deformans); but where such has put in an appearance, pinch off the affected parts, take them away and burn them. Should green fly be troublesome, syringe well with quassia extract. I have been once over all our trees and removed several of the foreright shoots and those behind the wood, but I do not care to be too severe till all danger of frosts is over. The remainder of the protecting material may now be removed and put away when dry. If nets, let them be labelled as to size, &c., for convenience when employing them for other purposes.

Strawberry Beds.—Those who make it a practice of planting out plants which have been forced should keep them in the pots no longer than is necessary. If the land is in readiness and the plants have been sufficiently hardened, remove a few of the lower leaves, well soak the roots before turning them out of the pots, slightly disentangle the roots and plant firmly at 2 feet apart. Young plants from the nursery stock may be planted, if not already done, either in clumps of three or singly; and between the rows of these small plants a crop of Lettuce, Turnips, Spinach, or some other quick-growing vegetable may be taken, this doing no injury to future growth.

Vegetables.

Winter Greens and Celery.—When these Greens are of no further use have them cleared off the ground at once. Celery trenches may then be made and prepared. For the early supply the trenches for single rows should be 4 feet apart and a little more for late varieties. Put a good dressing of manure at the bottom of the trenches, between which some suitable crops may be grown. Plants in boxes will be all the better if carefully planted out on a suitable border, at a reasonable distance apart to induce a sturdy growth, prior to finally transferring them to the trenches.

H. Markham.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

Vegetable Department.

Onions raised from seed sown in January may, if the weather is good and the hardening process sufficiently advanced, be now transferred to the open. A well-enriched, deeply worked soil is necessary to success, and as this has probably been attended to earlier and the surface left rough, the same may have a dressing of soot applied and the whole reduced to a fine tilth. Make all firm by treading when quite dry and mark out the stations for the plants at about 12 inches apart. Lift the plants carefully and replant, keeping the bases as near the surface level as possible. Afterwards apply water if required and afford shelter from strong winds for a time.

Leeks similarly raised are best grown in trenches to facilitate the blanching process later on. If paper tubes or collars are placed upon these when planted, support and protection are thereby afforded the plants and elongation of the stems accelerated.

Parsley.—To grow the fine specimens often seen upon show tables, early sowing, careful culture and transplantation to good soil as soon as the weather permits are essential. Where possible, allow a space of at least 18 inches between the plants, and be sparing in the use of manures at all seasons.

Sowing Seeds.—Dwarf and Runner Beans may now be sown in the open, while others forwarded in pots should be freely exposed to the elements, whenever this course is safe, preparatory to their being planted out when danger from frost is past.

Broad Beans and Peas for succession should now be sown in larger quantities. Of the latter there are many excellent varieties from which to make a selection; but Ne Plus Ultra, to name only one, would be found very satisfactory.

Plants Under Glass.

Tomatoes.—Pot on the plants as they become well rooted, and afford sufficient space that air and light may circulate freely among them. If for planting out in frames or against walls, endeavour to get at least one cluster of fruit set before this is done. Plants having fruit ripe or ripening may have the leading shoots stopped when a good crop is assured, while all side growths should be rubbed off as they appear. Water fruiting plants freely and apply stimulants, by way of artificial manure, at discretion, according to the weight of crop and the vigour of the plants.

Chrysanthemums.—All late-struck plants should be potted before they become root-bound and be placed in a frame, where they may be kept close for a few days thereafter. Specimen and decorative plants require a certain amount of stopping being done to induce the desired bushy habit. In this, however, extremes should be avoided, or numbers of thin, weakly growths will be produced that are useless for flower production and tend to overcrowd the plants to the detriment of the foliage.

Lawn and Pleasure Grounds.

Mowing will now take up considerable time, and it is a mistake to make one cutting take the place of what should be two, under the impression that time and labour are thereby saved. The same applies to the first cutting, which is often deferred until the machine works indifferently, and the ill-effects are visible long afterwards. Planting of trees and shrubs being finished—with the exception, perhaps, of Hollies, which remove well any time this month—any overgrown evergreen shrubs may be reduced to reasonable proportions or, in the case of Laurels, Portugal Laurels and Rhododendrons, be cut hard back, with every prospect of shoots quickly springing from about their bases. James Day.
(Gardener to the Earl of Galloway.)
Galloway House, Garlieston, Wigtownshire.

NEW PLANTS.

LIO-CATTLEYA DR. R. SCHIFFMAN STONBIRT VARIETY.—This is one of the best hids that has been shown for a long time. uperb shape and splendid substance, it is a er that will appeal strongly to all lovers of hids. The size and form are much in nce of the type, which in itself is a good id. The sepals and petals are of the usual mauve hue, the large labellum being rich hine, with orange and yellow markings in the at. In addition the margins are beautifully ped. The parentage is given as Cattleya delii × Lælio-Cattleya callistoglossa. Shown Lieutenant-Colonel Holford, C.I.E., C.V.O., tonbirt, Tetbury, Gloucestershire. First-class ficate.

burnum Carlesii.—To our full description of delightfully fragrant-flowered shrub that ave a year ago, when the plant received an rd of merit, we have now the pleasure to that it has withstood unharmed some 29° of without the least protection. Its perfect iness therefore increases or enhances its e, and the proved fact will doubtless cause welcome addition to choice flowering shrubs e much in demand. Grown with protection wax-like clusters of flowers are nearly pure e, while grown in the open air the flower-ers are tinged with pink. Exhibited by Trevor Lawrence, K.C.V.O., Dorking. First-certicate.

xifraga Clibranii. — A reddish-flowered ety of one of the mossy Saxifrages, the t being very profusely and freely flowered, ill at least prove as welcome as it is nct. Shown by Messrs. Clibrans, Altrincham. rd of merit.

ephrolepis lycopodœoides.—We do not recog-any special appropriateness in the specific e in this case, though the plant undoubtedly ngs to a class that is destined for much larity in the near future. The fronds are he same dense, plumose character of some rs of the group, though less large generally. n by Messrs. T. Rochford, Turnford Hall eries. Award of merit.

xifraga decipiens Arkwrightii. — A large pure white flowering variety of con-able merit. The newcomer belongs to mossy section of the group and is possessed habit not unlike that of S. cæspitosa. n by Bakers, Wolverhampton. Award of t.

neraria flavescens (Cineraria Feltham Beauty enecio auriculatissima).—A welcome and y interesting plant and the first step to-s a yellow Cineraria. The plant possesses the habit of growth and flowering of the named parent, the heads of blossoms being compact and the flowers of large size. The r on first opening is of a pale canary or sulphur yellow tone, which pales with the expansion of the florets. Shown by Messrs. s Veitch and Sons, Limited, Chelsea. rd of merit.

imula Unique Improved.—A very desirable ty having P. cockburniana and P. pulveru as its parents, the hybrid partaking largely, rently, of the perennial character of the amed species, and likewise its habit and ness of stem and general vigour, the colour ng between the two parents. The blossoms large size, and there were in the exhibited ples at least four or five whorls of the rs. Obviously a welcome and good plant. n by Messrs. James Veitch and Sons, ed, Chelsea. Award of merit.

drangea hortensis alba.—A good and useful ll as a meritorious plant, valuable alike to decorator, the private and professional ner, and the market grower. The large ms are of a good white tone, and in well-examples this attribute will be seen to greater advantage. Shown by Messrs. Low and Co., Enfield. Award of merit.

All the foregoing were exhibited before the Royal Horticultural Society on the 4th inst., when the awards were made.

PRIMULA FORRESTII.

THIS beautiful Yunnan species (see page 242) created considerable interest when shown by Bees, Limited, Mill Street, Liverpool, before the Royal Horticultural Society on the 20th ult. The blossoms are a beautiful golden yellow, and are borne on erect stems some 8 inches in height. As this plant has proved hardy in Cheshire, it may be looked upon as a superb acquisition to the outdoor Primulas. The floral committee gave it a first-class certificate.

DAFFODILS AT SURBITON.

LOOKING back to a period of thirty-five years or more in the history of the modern Daffodil — into that rather remote past when such varieties as Figaro, Stella, Cynosure, Frank Miles and others akin were as the gems in a crown, and when the "great trumpeters," such as Emperor and Empress, were virtually unique and unrivalled in their way—and comparing these with the still more modern race and the accomplishments of recent years, we see much to admire, while there is much food for reflection and surmise. In those past years the rate of progress has been nothing short of marvellous, and this in all directions and in all the phases of the flower. For example, to the thin-petalled variety has been imparted great substance; to the star-petalled flower—graceful and beautiful as these still are in garden and woodland, copse and dell — has been given a more rounded form and ovate as well as overlapping perianth segments, that appear to constitute in part the florist's ideal of the flower; while in other directions, such as in the Poeticus race—with all thanks to Mr. Engleheart for the same—there has not been merely an improvement in the flower, but a bridging-over, connecting-up, gap-filling process at work, the direct result of which is that we have to-day an unbroken chain of Poet's varieties for weeks together. These are a few of the accomplishments of the recent past, but only a few in very truth, for there is that newer race of Engleheartii varieties, together with giant strides in the Leedsii and Ajax sections, apart from many others, to be recorded.

If we try to look into the future of the Daffodil as a whole, or endeavour to measure the progress of the future by the progress of the past, or to conjure in our own minds with what giants the Daffodil world will be peopled in the years to come, there is abundant scope for the idealist, the dreamer and the imaginative one. Who, for example, would have dared to hope or dream that the Daffodil of a few years ago would have yielded such giants as The Czarina, Lord Roberts, King Alfred, Peter Barr, C. H. Curtis, May Queen and Maggie May, to name but a few; and with such forces in hand who shall say what the future has in store? One thing, however, we may do, and that is to venture the hope that not all the grace and beauty and charm of the Daffodil may be lost in mere size, and that size in particular which, being interpreted, means coarseness, would render necessary the exhibiting of such things as solitary examples in a vase rather than as to-day grouped or arranged in the receptacle named and thereby affording and displaying their greatest possible decorative value.

We have referred to the giants of the race and those, too, of great size; but the giants may be of a twofold order, viz., the big giants favoured by stature and the like, and that other set, and which are giants equally in their way, and even more epoch-making by reason of their unique and chaste characteristics. For such as these latter we must look to the coming races of triandrus and Johnstonii hybrids, in both of which we may soon see many pearls of great price, gems of snowy or alabaster whiteness, and for which no praise will be too great. These are the things we look for and hope to see, and they are probably much nearer to us and to our time than the scarlet Daffodil, which a score of years ago was thought a not impossible thing. So much, then, for the progress of the Daffodil and the possible achievements of the future.

Doubtless many who visit the remarkable Daffodil grounds of Messrs. Barr are impressed in various ways, and one impression that clings to the writer, as year by year he renews his acquaintance with these acres of waving or dancing blossoms, is the vastness of the collection as compared with the years that are gone, and when such as Barri conspicua, for example, existed merely in dozens, whereas now it may be seen in its hundreds of thousands, and still as popular and almost as unique as of yore. It was in these same early days that Mr. Peter Barr, V.M.H., with a Daylight Saving Bill of his own then in vogue, and which differed from its would-be namesake of to-day in the one essential of its being a daylight saver at both ends of the day, worked early and late to reduce the many varieties of that time to some sort of order, and the task was certainly not a light one. At that time, too, a yard square patch of Narcissus Poeticus ornatus was regarded as a big stock; to-day it is grown by hundreds of acres, and, succeeding everywhere, so to speak, is practically unique. It is, therefore, the then and now of the Daffodil world that so strongly impresses one, and, naturally, the mental picture of the past fades into utter significance—not in importance, but in the acreage covered and the myriads that are grown at the present time.

Largely grown, however, and highly popular as these flowers are, there is room for more of them in park and woodland and garden alike, and they are destined to be much more largely used in the near future. Naturally, the cultivation of the best of all sections is a matter of the first importance at Surbiton, and receives attention as such. Still, as each year comes round, the work of cross-breeding goes on apace, and each year brings its own quota of seedlings that are flowering for the first time, and the noting of which entails much labour and watching. Then, of course, there is the general collection to be overlooked, checked or rogued if necessary, to say nothing of a great influx of visitors, all of whom are desirous of seeing the best. Among the newer creations in these flowers, the members of the Poetaz race are interesting, and such as Elvira, with perfectly erect habit of growth, and Aspasia are a pair remarkable for good growth and free flowering. The Poeticus race is now a strong one, and the visitor may select at will from such as Cassandra, Dante, Almira, Glory, Horace and Chaucer, and be perfectly satisfied with his choice. Should the Engleheartii forms possess a special attraction for such an one, such varieties as Red Emperor, Sequin, Royal Star, Circlet, Charm, Incognita and Astradente will be found worthy representatives of this distinct and much-prized group. In the great incomparabilis group, too, there is a wealth of material to select from, and, happily, the majority of these are as much at home in the border as in grass or woodland. Bedouin is one of the novelties in this set, and a really magnificent variety it is, too choice and too costly for any but the best positions as yet. Barn Owl is an exceptionally distinct form with big crown and unusually long, well-starred flowers. Blackwell is one of the most handsome and early, its fiery orange cup being most distinct; and Gloria Mundi, Lady Margaret Boscawen, Lobster and Lucifer are other notable varieties of the same section. In white trumpet sorts are to be found not a few of the choicest and best, and if we take the renowned Peter Barr, Alice Knights, Loveliness, Lady Audrey, Lady of the

Snows, May Queen and Mme. de Graaff we have a few of the leading sorts that are indispensable to the exhibitor or the grower of the best of these inimitable flowers. A set of the popular bicolors should include Duke of Bedford, Cygnet, Calpurnia, Queen Christina, Weardale Perfection, Seraphim, E. T. Cook, Knight Errant and Pharaoh; and there are others.

In the yellow trumpet section, the Admirals Togo and Makaroff are notable varieties, while others of towering strength in the same group are Monarch, Buttercup (wonderful in colour), C. H. Curtis, George Philip Haydon, Lord Roberts, King Alfred, Golden Bell and Glory de Leiden. The selection, however, might be extended indefinitely; but our mission at the moment is not the compiling of a catalogue so much as to bring into seasonable prominence a race of plants whose beauty and grace has never been gainsaid, and to which our gardens and greenhouses owe so great and unredeemable a debt.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Flowers for button-holes (*Roman*). For providing suitable flowers for the above you cannot do better than purchase a few Carnations and Hybrid Tea Roses, though we greatly fear the sum you name will not go very far. White and red Clove and Daffodil, a good yellow, are among the best Carnations, while Uriah Pike is also very free-flowering. Hon. Edith Gifford, Sunrise and W. A. Richardson are useful Roses for the purpose named, and in addition you might like to grow Sweet Violets, Violas, Mignonette or Pansies.

Plants for a lake (*E. R. B.*).—You may plant the following Water Lilies in your lake: Nymphæas gladstoniana and alba candidissima, white; Marliacea carnea, flesh-coloured; Marliacea rosea, rose; tuberosa flavescens, yellow; and William Falconer and William Dooze, red. In addition to these you might plant the pretty little yellow-flowered Limnanthemum peltatum and the Cape Pond-weed (Aponogeton distachyon). For the margins you could plant red and yellow-stemmed Willows, Cornus alba Spathii and Rubus biflorus on the bank, with a plant of Salix babylonica and one of Taxodium distichum. The margins partly in the water might be planted with such subjects as Yellow Flag, Iris Pseudacorus, I. sibirica, Nuphar lutea, Typha latifolia and T. angustifolia, Water Dock, Water Violet, Bog Bean, Sweet Flag, Lythrum Salicaria, the Royal Fern (Osmunda regalis) and the handsome new plant, Senecio Clivorum. A pretty effect may be obtained by naturalising Mimulus luteus and Primula japonica on the banks.

Blue Primroses (*E. M. M. Kerrow*).—There are several stocks of the so-called blue Primroses, but those which were first seen were obtained, we believe, by crossing the bluest of the self-coloured Primroses with the old-fashioned Primula elatior cærulea, and subsequently by selection. It is quite possible to do something more with these plants to-day, and particularly in the direction of selecting the purest and clearest colours and intercrossing the selected plants. There is much red colour in the "blue" Primroses to-day, and some of this might with advantage be wiped out or, to some extent, modified.

THE GREENHOUSE.

Treatment of border and Malmaison Carnations (*H. H*).—The border Carnations should have been planted out before this, and then when the flowers are past is the time to layer them. As they are now in the conservatory in flower, or rapidly approaching that stage, you probably would prefer to keep them there till the flowers are over. Immediately this happens they should be planted out in a thoroughly dug border and be well supplied with water. Then layer as soon as the shoots are in a condition to do so. The Malmaisons need more careful treatment. They should be layered in a cold frame. Immediately the flowers are over, plant the Malmaisons in a frame, using a compost made up of loam, leaf-mould and sand, the whole being passed through a sieve with a half-inch mesh. Select for layering purposes strong, healthy shoots, and remove therefrom a few of the leaves at the base where the tongue is to be made. Then layer this in the prepared soil aforesaid and secure in position with a peg. When finished give the soil a watering through a fine rose and put the lights on the frame. Plenty of air must be left on night and day, the object of the lights being to prevent the soil becoming sodden in the event of heavy rains. Until the layers root they should be shaded from bright sunshine. In a month to six weeks they will be sufficiently rooted to pot off singly. Any well-shaped plants may, if you wish, be potted on for another season instead of propagating from them. This should be done as soon as the flowers are past.

Carnation diseased (*Owen Oakley*).—The plant is suffering from the stem and leaf fungus which plays so much havoc with these plants, and your only chance of combating such a disease is to syringe the plants once a fortnight or three weeks with sulphide of potassium at the rate of 1oz. to two gallons of water, rain-water being preferred. This should be done fairly regularly to keep the disease at bay, a light spraying to wet as much of the plant as possible being the best. If your plants are all as bad as the one you send for our inspection, we advise you to burn them, soil and all, and after a time start again with healthy plants.

FRUIT GARDEN.

Vines bleeding (*W. R. Somerset*).—The bleeding of Vines after pruning is a source of much trouble and anxiety to amateurs and beginners in the culture of Grapes. The chief cause of bleeding is due to late pruning. Had you pruned your Vines a month earlier, bleeding most likely would not have taken place; but it often happens that it is necessary that the Grapes must hang on the Vines until the end of the year, and in that case, of course, early pruning could not take place. Late Vines, in our experience, are more susceptible to bleeding than early ones, and a Vine which bleeds one year generally does so the second year if the conditions are the same. Instead of pruning such Vines late, the best way is not to winter prune them at all, but to wait until the Vine starts into growth, and then disbud all the buds on the spur, excepting the necessary one at the base. As soon as the Vine is in active growth the disbudded spur must be pruned back to the basal bud, and no bleeding will then take place. To stop bleeding by mechanical means once it has started is difficult. The most successful way is the one you have adopted, namely, encouraging early growth (to absorb the sap) by applying a higher temperature. The best remedy for stopping the bleeding we have found to be is to sear up the cut end of the spur with a hot iron and then apply the styptic or sealing-wax.

Vine leaves blotched (*T. S.*).—Your Vine leaves are perfectly healthy; the blotches you speak of are common to most Vine foliage of that age.

MISCELLANEOUS.

Water from cesspool (*Elizabeth*).—It w depend entirely on the crop. For Roses, Chrysanth mums and many strong-growing plants it may be us with advantage, but for weaker-growing subjects and f such pot plants as Cyclamen, Cineraria, Primula ar Calceolaria it should be made very weak, even if used all. Speaking generally, it is better for use in t shrubbery, the kitchen garden and other places whe free root-action quickly impoverishes the soils.

Seaweed as manure (*B. T. F.*).—Fresh seawe is of about the same value as farmyard manure, and m be used in the same way; but care must be taken that t much is not used, as there is a considerable amount of sa which may not be altogether beneficial, though a sma amount may be of indirect benefit to the plants. I constituents become available only as they decompose the soil, and it is best to thoroughly incorporate it wi the soil if it is desired that it shall decay quickly.

Anthracite coal *versus* **coke for heatin purposes** (*The Skipper*).—Some years ago we we into this question very closely, with the result that t evidence then collected was strongly in favour of cok the strongest evidence coming from Mr. Joseph Rochfor Fuel, of course, is a serious item in his gigantic busines Of course, much turns on the price. Why not make trial with one or two of your own boilers, using coke fo say, a fortnight and then anthracite for the same leng of time, and register the night and early morning temper tures during the whole time and compare temperatur and cost during this time? The sun will soon have suc an effect on the day temperature that it will scarcely worth registering them. Should you do this, we shall very pleased to hear the result.

Tile draining wet soil (*T. W. L.*).—In such neighbourhood as yours it should not be at all difficult obtain old Heather or Furze or small brushwood, and the draining tiles are laid in the trenches, to pack the close, being well trodden in with a body of one or oth of these woody materials several inches deep. This wi keep the soil porous about the drains for many years an thus prevent the clay from close-packing the tile Placing broken brick-rubble or coarse stones or gravel few inches thick would also answer, but we should pref the woody matter as the cheapest and most efficacious We cannot advise you on paper as to the turning of t hard pan along the sides of the ditch, as that is a matt on which opinion can be of service only from person observation. Economy in draining is materially a questi of the fall of the ground and free outlet for the water in some lower receptacle.

To clear a pond of slimy weed (*Geneva*). Water-fowl would make no appreciable difference to t amount of weed in your pond, particularly the kind se The best way to deal with it is to calculate the volume water and use copper sulphate at the rate of 2½oz. 10,000 gallons of water. The copper sulphate may eith be dissolved in water and syringed over the surface the pond, or it may be tied in a piece of canv and dragged through the water, by means of a pie of string, backwards and forwards until it is dissolved. The weed will be found to be killed in few days' time. It is quite likely that the application wi have to be repeated in the course of the summer. It needless to say that the water ought not to be used f tender plants, such as Ferns, Selaginellas or mosses, f some time after the poisoning has taken place. Wat Lilies are not affected if the poison is not made strong than recommended above. Should the pond be fed by stream, some means will have to be adopted for checki or diverting the supply for a few days, until the poiso has done its work.

Renovating a demoralised garde (*Newport*).—It is but too evident that the only cour with the fruit trees in your recently acquired garden w be to grub them out and destroy them. In spite of yo gardener's opinion, we should still advise trenching t whole of the ground 20 inches deep, paring off first t surface and weeds, burying that down after you had in preceding trench thrown out the next spit of 10 inches 12 inches of soil, then well broken up the bottom soil, matter what it may be, some 8 inches or 9 inches deep with a fork. When the top or surface soil and weeds a thrown into the trench in front, a heavy dusting of so would help to kill much of the insect-life found the When all the ground has been so treated, a dusting Vaporite or Kilogrub may be given and forked in; the will doubtless kill off any ground pests that remain, as th are spoken highly of by those using them. No doubt o of the most efficient soil insecticides is gas-lime, but th is very bulky, though cheap. This should be applied at t rate of three-quarters of a bushel per rod, being strew evenly over the ground in November, allowed to lie expos for a month, then dug in. For such a soil as yours should advise applying a dressing of fish guano at the ra of 10lb. per rod area, putting it on in March and at on digging it in, not, of course, dressing all the grou directly, but just so much as could be dug in in a day. plant the bulk of the ground with a strong-growing Pota for the first year is not bad advice, as it would thorough cleanse the soil assuming that grubs and wireworm did t tubers no harm. Wherever you propose to crop with Pe Beans, Cauliflowers or other vegetables, especially coar growers, use your pig-manure and with that, if you ca soot very abundantly. Leaf-soil and wood-ashes are very valuable manures. What is known as Native Gua makes a capital pasture dressing put on at the rate of 1 per rod area.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C

FORTHCOMING FLOWER SHOW FOR OUR READERS.

IT is generally acknowledged that one cannot often have too much of a good thing, and that the show held last year for readers of THE GARDEN was a good thing all those who were present warmly testified. We have reason to believe that the decision of the Proprietors to hold a similar exhibition this year is meeting with the approval of our readers, and it is for this reason that we wish now to emphasise a few points in connexion with the show.

In the first place, it may be as well to glance briefly at the schedule, which has been frequently printed among the advertisement pages. It will be seen that all classes and both large and small growers have been considered, and that exhibits of flowers, fruits and vegetables are asked for. In the first-named section classes are arranged for Sweet Peas, Roses, Carnations, annuals and other flowers, all of which, of course, are universally grown. Fruit, owing to the date of the show, is necessarily somewhat limited, but any that can reasonably be expected to be ready in any quantity at the time is arranged for, and all who saw the splendid collections staged last year will agree that they were of very high quality. Vegetables, owing to the increased interest now being taken in their culture, are sure to be good, and this section we regard as one of the most important in the show.

Another point that we wish to draw special attention to is the fact that any reader, whether they can attend the show or not, is able to compete, as we undertake to stage any exhibits sent in time to reach the hall by the hour named in the schedule. Of course, we hope as many exhibitors as are able will attend and arrange their own exhibits; and we also hope that those who send produce will pack it securely in stout boxes, so that it will travel well and arrive in good condition. The schedule should be carefully studied and the rules contained therein fully observed, as by so doing exhibitors will avoid causing confusion and delay.

Needless to say, we were very pleased, indeed, by the way in which our readers responded to the invitation to exhibit last year, and we hope our readers will help us in making the show an even greater success. The judges will be as follows: Messrs. E. Beckett, V.M.H., gardener to Lord Aldenham, Elstree, Herts; D. B. Crane, a well-known amateur horticulturist; W. A. Cook, gardener to Sir Edmund Loder, Bart., Leonardslee, Horsham, Sussex; E. H. Jenkins, a hardy plant specialist; A. Dean; H. E. Molyneux, late treasurer of the National Rose Society; Owen Thomas, V.M.H., late gardener to Her Majesty Queen Victoria; Walter P. Wright, horticultural superintendent under the Kent County Council; and G. Wythes, late gardener to the Duke of Northumberland.

"INTENSE" CULTIVATION.

MANY not in the know do not understand the meaning of this newly-got-up fad, although no doubt in some gardens, perhaps small suburban ones, they are requiring something more to turn their attention to, especially now that we have many ladies striving for a place in the gardening world. If anyone can call to mind the suburbs of London twenty or twenty-five years ago, the ride from Hammersmith to Kew and Richmond, or to Putney, Barnes and Mortlake, they will remember the acres of cloches nurturing tender Lettuces and Cauliflowers during the spring; now, these have given places to miles of villas, and the produce grown for the supply is further out, and instead of cloches one may see hundreds of yards of frames and miles upon miles of glass houses of all sizes, where early vegetables are grown. Then, again, in most large gardens intense cultivation has been carried out in the spring and, I may say, all the year round, for in a garden there is really no slack time.

We will start with hot-beds made in January for Asparagus. These are put up for three large lights at a time. Sow Radishes and Lettuce with the Asparagus. Pull the Radishes and when the Asparagus is finished take out the roots and pull up the Lettuce plants, which will have developed to a good size. As soon as the Asparagus roots are out, place them in the frame in a little more fresh soil, and prick out the Lettuces and sow Carrots. These, when properly attended to, are over by May, and then come French Beans and Marrows ready to put into them. As soon as the Beans are finished, put them out, wash the frame and add more soil. Then plant out Cucumbers and Melons. These will carry good crops, and when finished the lights can be used for Violet growing, which will prove profitable.

It will thus be seen what can be done, what is done, and what has been done by our forefathers for years. We have cut a long border of Sutton's Favourite Cabbage, and already I have a crop of Lettuce, and Carrots and Turnips are coming on. Surely this is quick enough work and as much as the ground can be made to do. Some of the methods that have been spoken of are ridiculed by those who know, more especially in some of the daily papers. There are as many smart men in England as anywhere in the wide world, and who possess a keen knowledge of the business they follow, more especially in our large market gardens.

The Press and the public generally do not realise how many wonderful nurseries and market gardens there are, and within a few miles of their doors. It should be well known that as growers the British are second to none in the world. No fruit is cultivated anywhere to equal their Grapes, Peaches, Nectarines, &c., and the flavour of their Apples, Pears and Strawberries.

W. A. COOK.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

May 25.—Royal Horticultural Society. Great Spring Show, Inner Temple Gardens, Thames Embankment, 12 noon to 7 p.m. Admission 10s.

May 26.—Great Spring Show, Inner Temple Gardens. Private view to Fellows only, 7 a.m. to noon; public, noon to 7 p.m. Admission 2s. 6d.

May 27.—Great Spring Show, Inner Temple Gardens, 9 a.m. to 6 p.m. Admission 1s.

Rose shows this year.—The dates of exhibitions of the National Rose Society and of societies affiliated with it, as far as they are at present arranged, are as follows: Windsor, Saturday, June 26; Canterbury, Tuesday, June 29; Southampton, Tuesday and Wednesday, June 29 and 30; Dartford, Wednesday, June 30; Ealing, Wednesday, June 30; Reading, Wednesday, June 30; Walton-on-Thames, Wednesday, June 30; Royal Botanic Gardens (National Rose Society), Friday, July 2; Sutton, Saturday, July 3; Maidstone, Monday, July 5; Southend-on-Sea, Tuesday and Wednesday, July 6 and 7; Bath, Wednesday and Thursday, July 7 and 8; Croydon, Wednesday, July 7; Epsom, Wednesday, July 7; Farnham, Wednesday, July 7; Farningham, Wednesday, July 7; Reigate, Wednesday, July 7; Eltham, Thursday, July 8; Finchley, Thursday, July 8; Harrow, Thursday, July 8; Stour Valley (Westbere), Thursday, July 8; Edgware, Saturday, July 10; Purley, Saturday, July 10; Baltic (St. Mary Axe, London, E.C.), Monday, July 12; Gloucester, Tuesday, July 13; Saltaire, Tuesday, July 13; Formby, Wednesday, July 14; Luton (National Rose Society), Wednesday, July 14; Woodbridge, Wednesday, July 14; Malvern, Thursday, July 15; Potter's Bar, Thursday, July 15; Ulverston, Friday, July 16; Manchester, Wednesday, July 21; Trowbridge, Wednesday, July 21; Thornton Heath, Monday, August 2; and Westminster (National Rose Society), Royal Horticultural Hall, Thursday, September 16.

Mr. H. D. Phillips's exhibit of Daffodils.—We have again to welcome a new recruit to the ranks of the Daffodil traders. Mr. H. D. Phillips of Olton staged a beautiful collection of some of the choicer Narcissi at the Royal Horticultural Society's meeting on May 4 and gained the highest award of the day, namely, a silver Flora medal. There must be something in the air of Warwickshire which genders a love of Daffodils. We remember a beautiful King Alfred of Mr. Phillips at Birmingham two or three years ago which won the premier prize for a yellow long trumpet, so we were not surprised to see the evidences of good culture that were noticeable on his stand the other week. Seville, which was *the* flower in the collection, has been included among the varieties mentioned by Mr. Jacob in his "Daffodil Notes." It is a glorious bit of rich colour and the shape of the flat cup is most striking. Peveril is a pretty little flower with a flat red cup and a white reflexed perianth. Rosella has a pale yellow perianth with almond-shaped overlapping segments, and a rather large pale orange cup. Cavalier is a pretty flower with a cup of orange, margined with a broad band of red, and a perianth that recurves and reflexes. There were excellent specimens of Lady Margaret Boscawen, Horace, Glitter, Gloria Mundi, &c. The whole made a most creditable first exhibit, and as we know how enthusiastic Mr. Phillips is, we feel sure we shall see even better things in 1910.

An interesting method of removing trees.—An interesting experiment in the grubbing of trees has recently been successfully carried out on the estate of Mr. R. Sankey, of flower-pot fame, at Bulwell, Nottinghamshire. A plantation of seven acres was dealt with, Mr. Sankey having decided to cultivate the land. The soil at the foot of each tree was loosened, a chain then placed round the trunk and a seven-horse-power traction engine then hauled it out by its roots.

Danysz bacillus.—The Lister Institute of Preventive Medicine has reported that, although this bacillus presents the closest resemblance to organisms which have been responsible for outbreaks of food poisoning, it is entirely different from the bacillus which occasions typhoid fever. The suspicion, therefore, which has arisen in some places that outbreaks of typhoid fever are due to the virus is without foundation. It is not, on the other hand, proven that the Danysz bacillus, if introduced into the alimentary canal, would be harmless to man. A few instances have been recorded which have led to the suspicion that the employment of this and similiar viruses has been responsible for small outbreaks of acute and even fatal diarrhœa in man, but the evidence has not conclusively established the viruses as the causative factor.

National Chrysanthemum Society.—We have received a copy of the schedule of the above society for the present year and note several important alterations. The grand autumn exhibition is to be held at the Crystal Palace on November 3, 4 and 5. The prize list has been considerably increased and the consideration money due from the Crystal Palace is personally guaranteed by the Receiver. A conference on Chrysanthemums will be held at Essex Hall, Essex Street, Strand, W.C., on Wednesday, October 6, at 3 p.m., when papers will be read on various aspects of Chrysanthemum culture and discussions will be invited. The floral committee will meet at Essex Hall on the following dates: September 20, October 6, October 25, November 3, November 15, December 1 and December 13. The secretary (Mr. R. A. Witty) wishes readers to note that his address is now 72, Savernake Road, Gospel Oak, London, N.W.

The Gardeners' Royal Benevolent Institution.—A pleasant evening was spent on Wednesday in last week in the Cripplegate Theatre, and the occasion was a performance of Mr. Edward Sherwood's pretty play, "In Cyderland," in aid of the funds of the Gardeners' Royal Benevolent Institution. This is not the first occasion we have had the pleasure of being present at a performance of this play to help some charitable work; but we have never seen the theatre better filled than on this occasion, a sign that the fund will benefit materially from Mr. Sherwood's efforts. As mentioned in the programme, the Gardeners' Royal Benevolent Institution has been established seventy years, and has during that period distributed upwards of £122,000 in relief to gardeners, market gardeners, growers, nurserymen, florists and their widows. Yearly allowances are now given to 138 men and 101 widows at an annual cost of over £4,000. Grants of money are given to candidates awaiting aid, of whom there are 53, several incurably paralysed and others almost blind. Immediate assistance is also given from a fund called "The Good Samaritan" in urgent cases of distress and need. Many well-known horticulturists and their friends were present. We were delighted to see Mr. N. Sherwood, who has given so freely to this and other charities, and his two sons, and among others were Mr. H. J. Veitch (the treasurer, to whom the institution owes so much), Mrs. Veitch, Mr. George Ingram (the secretary) and Mrs. Ingram. No institution, we are convinced, is supported more enthusiastically and economically worked than this, and a crowded audience in a somewhat inconvenient centre testified to the real love all who are officers take in its welfare. The performance was very bright, and all the performers, most of whom are employés of Mr. Sherwood (Messrs. Hurst and Son), entered heartily into the spirit of the play. The music is most tuneful, and some of the airs would be whistled in the streets if they were heard in one of the great London theatres. To criticise severely would be unfair, as the performers were amateurs; but this one can say, the music was perfectly rendered by the orchestra of the Hurst and Son Musical Society, under the conductorship of Mr. Edward Sherwood. The play has been written by Mr. R. Carey Tucker. Mr. Washington, who played capitally, is the hon. secretary, and Mr. F. W. Foster, stage manager.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Sweet Pea stem sports.—I have often come across the statement that Sweet Peas never make a sport—that is to say, never produce two different blooms on one stalk. As I have never seen this contradicted, I think it may interest some of your readers to know that I have this phenomenon now in evidence in my garden at Télemly. I began last year to try to introduce the waved standard into the Télemly (winter flowering) strain of Sweet Peas, using for hybridising purposes the Sweet Pea Pride of St. Albans. The desired result has, in accordance with Mendel's law, not been attained this year, though I may mention incidentally that the new Pea, even in this first generation, is about four weeks in advance of its English parent; but the curious fact is that, whereas the great majority of the young plants have come up mauve in colour like the Télemly parent, but with a waved standard, and only two or three take after the Pride of St. Albans, but with a plain standard, one single plant has distinguished itself by producing its two first flowers after the English type, and all the succeeding flowers after the Télemly. I have shown the plant to several people that there may be no doubt about the fact, if it is indeed an unusual one, and I enclose a blossom of each to show you the difference between them.—EDWYN ARKWRIGHT, *Télemly, Alger-Mustapha, Algeria.* [Unfortunately, the flowers were too much crushed and discoloured to enable us to say much about them, but that they were different there was ample evidence.—ED.]

Manures for alpine plants.—So far I have only directly applied manures to alpine and rock plants in small quantities, and the measure of success obtained justifies further experiment. Like other forms of vegetation, the growth of alpines is easily stimulated by either natural or artificial manures, a fact readily demonstrated by growing them in pots. In former years I used to supplement the spring top-dressing by further applications of liquid manure in summer; but in many cases the increased luxuriance was obtained at the expense of flowers, so that eventually I discontinued this practice, and, unless for special reasons, I now confine direct manuring to that contained in the spring top-dressing. I have used Veitch's (Chelsea) and Thomson's Vine Manure, both proprietary articles thoroughly representative of complete artificial manures. Sulphate of ammonia and superphosphate I have also sparingly employed in liquid form; the former gives excellent results with tufted plants like Aubrietia and alpine Phloxes, and particularly to those where the soil is very poor. I still consider this a first-class manure for assisting the growth of alpines in dry walls and similar positions. Superphosphate I only apply to limestone subjects, and, while the results are not so apparent, on the whole it favours freer flowering and is never detrimental to the ripening of the shoots. Complete artificial manures give the most marked results; the manure is mixed with old potting soil and worked into the crowns during February and March. There is one aspect of this question which appears overlooked, namely, the influence of limestone or chalk as an essential element in

e soil. We are bound at times to use improvised bstitutes, but if amateurs would procure chalk freely as they buy other materials in forming rdens, the gain in future years would far tweigh the initial expense. Alpines on a alk soil only require a modicum of manure at y time, as they invariably pass through the nter full of vigour, and herein appears to be e essence of the question. Alpines, as your teemed correspondents have pointed out (*see* ges 190 and 224), are extremely susceptible to imulants; the least overdose will carry the getative growth too late for perfect ripening the shoots. Where chalk is abundant in the il there exists a natural storehouse of food, and such form as is most suited to the requirements the great majority of alpines; and it is upon e successful application of the principle of anuring that their flowering ultimately depends. n this soil, as will be readily understood, anitic and peat-loving subjects do not find it an eal home; consequently the ground is formed imported soil to meet their require-ents. Here it is that decrepit plants ve awakened to renewed life and gour, and I attribute this result to formation obtained from one of our rgest commercial shrub-growers. The vice acted upon was to take the semi-quid manure deposited by cattle when st turned into the meadows in spring; is is collected and mixed with water d supplied to the plants at intervals a fortnight up to July. Primulas, ortias, Meconopsis, Daphnes and Rho-dendrons are examples from a varied llection which greatly benefit from this eatment.—THOMAS SMITH, *Walmsgate rdens.*

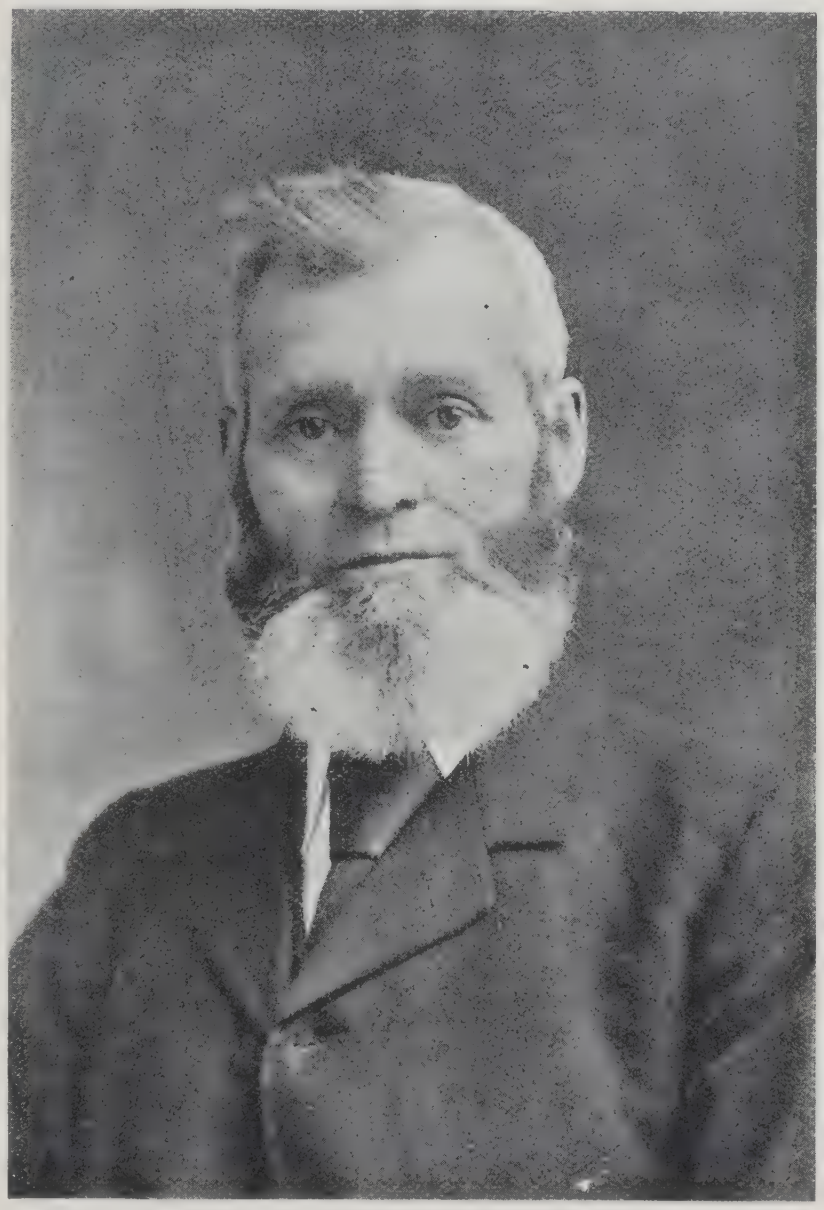
Tender plants and the inter.—After so hard a winter I ink it would be interesting if some of ur correspondents would let us know w their tender plants have stood the st. Here we have been very fortu-te. I was abroad, but I hear we had ° of frost and very prolonged hard ather. I only seem to have lost ttosporum Tobira, Ceanothus divari-tus and Buddleia asiatica; while on the ll may be noted Callistemon, Plum-go capensis and Loropetalum chinense e cut down, but seem to have life in em. Benthamia fragifera, Emboth-m coccineum, Desfontainea spinosa, ttosporum undulatum, Mitraria cocci-a, Nandina domestica, Magnolia mpbellii and Dicksonia antarctica, d on the wall Poinciana Gilliesii, anum jasminoides and Mandevilla veolens seem quite uninjured, so I nk we may congratulate ourselves. hardly dared hope the Dicksonias uld escape.—CRANBROOK, *Kent.*

Weeds on ponds.—Can you tell whether it is possible to destroy the mmon green slimy weed that collects on l ponds by the addition of copper sulphate or other substance, but at the same time not ure such water plants as the hybrid Nym-as? What is the amount per gallon that st be applied?—G. LISSANT COX, *Birkenhead.*

Degeneration in Primroses.—I d you a few stems of my Polyanthus mroses and hope they will reach you in a ly fresh state. I do not think the race is e so degenerate as "A. D." would have us eve. Why should he be so much surprised amused at my giving the credit to anyone producing the fine strain of Polyanthus mroses which we have to-day? He evidently been working to keep the Polyanthus and mrose distinct, whereas others have been ouraging the valuable cross-bred plants which so vigorous and showy in the garden. Does . D." want us to believe that the alpine icula is not a hardy plant? Surely not! I admit the flowers at the Royal Horticultural Society's meeting on the 20th ult. were not fair representatives of their race, and although I took first for the two Polyanthus classes in which I exhibited, I, like everyone else, would have much preferred to show a fortnight later, but I understand it was impossible to postpone the show. I was too young in 1871 to take much note of Polyanthuses, or anything else for that matter; but if "A. D." will send you a few of his flowers, if he has any of the type he grew thirty years ago, it would be interesting to compare them with the ones I send, and you might let readers know what you think of them.—W. A. WATTS. [The flowers sent by Mr. Watts were very beautiful.—ED.]

THE AURICULA AT HOME.

WHEN the home is at Great Bookham, Surrey, the owner that veteran grower and florist, Mr. James Douglas, V.M.H., and the stock of plants runs to some 15,000, it is no exaggeration to say that under such conditions the Auricula is at home. But Mr. Douglas is something more than a grower. Apart from the fact that he has all possible knowledge concerning the Auricula at his fingers' ends, he is a famous as well as a formidable exhibitor, and rarely is it his lot to play second fiddle to any other cultivator. When the annual show of the National Auricula Society was held in London recently, it was the Great Bookham exhibits which kept it from being an absolute failure.



MR. JAMES DOUGLAS, V.M.H.

Besides doing so much as a competitor, Mr. Douglas has been a generous supporter of the society and its exhibitions, and what with medals, subscriptions and most liberal gifts of packets of Auricula seeds to all members who may ask for them, few men have done more to keep alive interest in the Auricula. We found his very fine collection, in huge numbers in houses at Great Bookham, all in glorious bloom, and in frames outside were further great numbers, from which selections for the show house were made as they came into flower. Just then (it was April 30) much labour was being expended in preparing a very fine collection for the Royal Horticultural Society's meeting on May 4, where it would assuredly be one of the chief attractions of the show, for how wonderfully beautiful these children of Primula Auricula and P. pubescens are, and how they compel notice!

The old florists still worship the "shows," with their white, grey and green edges, or those beautiful selfs having red, maroon or bright yellow grounds. To thoroughly appreciate these flowers it is needful that their points be understood. So much is essential, indeed, in relation to any florists' flower, even to the more universally grown Daffodil or Sweet Pea. Remembering that all named Auriculas can be increased or propagated only by means of side shoots or offsets, it came as a matter of surprise to learn that really good varieties, in strong plants two years old (alpines especially), could be offered so cheaply and, still further, that equally strong seedling alpines could be sold much cheaper.

When it is remembered that Auriculas well cared for are so hardy and so enduring, as they will endure for generations, and that they admit of regular increase, it is surprising that amateur lovers and growers of them are not found by tens of thousands. But if all do not care for the powdered edged or self "shows," how can anyone but stop to admire and delight in the wondrously beautiful alpines? If amateurs will grow Auriculas, let them start with these by all means. They do well grown as border plants, but some of the best should always be grown in pots to flower under glass, as it is in April as a rule they are so lovely. No matter whether they have gold centres, with dense dark margins, or white or cream centres, with mauve, blue or other paler hues, all are so beautiful that they literally entrance and delight. None want large pots; Auriculas rather do best somewhat root-bound.

They need no specially rich soil. Two-thirds good old turfy loam, the other third of old hot-bed manure, leaf-soil and sharp white sand, with a light sprinkling of bone-flour well mixed, makes a first-class compost. A fine selection of "shows" are: Green-edged, Abbé Liszt, Abraham Barker, Dr. Hardy, Mrs. Henwood, Rev. F. D. Horner and Shirley Hibberd; grey-edged, Colonel Champneys, George Rudd, George Lightbody, Marmion and Olympus; white-edged, Acme, Conservative, Heather Bell, Mrs. Dodwell and Vesta; and of selfs, Andrew Miller, maroon; Favourite, violet; Mikado, dark; Heroine, maroon; Ruby, red; and Mrs. Phillips, dark maroon. Very beautiful alpines are Argus, Rosy Morn, Phyllis, Mrs. J. Douglas, Dean Hole, Teviotdale, Flora McIvor, Ettrick, Duke of York, Blue Bell, The Bride and Firefly.

In the open borders were great quantities of garden Primroses and Polyanthuses and many choice Daffodils. These bulbs seem to thrive splendidly at Great Bookham. Very soon the huge collection of summer Carnations will be coming into bloom. A few weeks and the show made in the houses will be a remarkable one. Mr. Douglas has one of the finest collections of these beautiful flowers in the kingdom, and Great Bookham is a veritable Mecca for Carnation pilgrims in July. Carnations, Picotees and Pinks are indeed in abundance

THE KITCHEN GARDEN.

WYTHES'S EARLY GEM FRENCH BEAN.

GROWERS whose gardening experience extends over many years have seen many fine kinds put on the market, and in the course of many years' experience I have tried many of them, but have found none to equal this variety. Last season I sowed several long rows the second week in May in an open position in a warm sandy soil. The weather being dry and hot, these made rapid growth, and I gathered freely from them in two calendar months from the time of sowing. Another merit they have is that they do not make a lot of tall, coarse leafage. It is only a few inches above the pods, and this admits of their being grown close together, both in and between the rows. Sometimes one is apt to be doubtful regarding the cropping powers when looking at an illustration, but the one in Messrs. Veitch's catalogue is quite faithful. Last year the demand was large just as these came into use, being some time before Scarlet Runners. This should induce those growing for market to try this kind, as it is the early crops that pay best. Added to this, by coming off the ground so early it affords room for winter crops. Nothing can be finer than this kind to plant at the foot of warm walls to come in early, as they take up so little space, and in a position where the frosts cut up things early these can be covered up easily, and so the crop may be extended several weeks into the autumn.

J. CROOK.

NEW ZEALAND SPINACH IN SUMMER.

AT this season of the year, when we have a wealth of good green Spinach, the above variety is not required; but in hot summers the ordinary Spinach is one of the first crops to fail in spite of every attention to sowing and supplying moisture, and the value of the New Zealand should not be overlooked. Those who have to supply Spinach daily know the difficulties, and in other cases I have always found that a good dish of this vegetable was welcome, as it gave variety, and we do not always give enough attention to this point. New Zealand Spinach is easily cultivated. For a first supply I have sown a few seeds in frames in 3-inch pots, and when well above the soil thinned to the largest, planting out on a rich border late in May and giving much room (2 feet to 3 feet apart), as the plant branches out very much in hot seasons with plenty of moisture. To get a supply in July and August, the two months in which the ordinary Spinach often fails, seed sown in May in well-prepared soil in rows 2 feet apart, and the plants thinned to 18 inches in the row, will give a supply at the time named; indeed, I have sown in June for an August crop, as the plant makes rapid growth if given ample moisture and gives a lot of good cutting material till late in the season. The soil must be rich and the plant given ample room; but where large quantities are required, it is an easy matter to cut the growths regularly, and the plant soon makes new growths. The more the tender young shoots are picked, the more quickly do others grow, and the plants continue to provide excellent gatherings until frost kills them. The plants are really not particular as to soil, a point that will commend this Spinach to many. The flavour, although not quite so good as that of ordinary Spinach, is, however, very good, and the vegetable can be regarded as a decidedly wholesome one for summer use. It is a pleasure to know how much vegetables are coming into favour.

G. WYTHES.

A SPRAY OF THE NEW CINERARIA FLAVESCENS.

(*Natural size.*)

THE FRUIT GARDEN.

HOW TO GROW FRUIT TREES IN POTS.

(*Continued from page 240.*)

INSECTS.

THESE, of course, give trouble, as they do under other systems of culture; but, all things considered, I would much prefer to have to deal with pot trees, for the simple reason that it is possible to use the syringe in all directions. In the case of green fly we make it an invariable practice to fumigate or otherwise vaporise with one of the nicotine compounds, the use of which is perfectly safe just before the first flowers expand. Prior to that, however, and when the house is first closed, we give the first application. These applications will keep the fly in abeyance for a long time, and if any are seen later on another turn will eradicate them. There is no reason or excuse for attacks of fly to do any injury with the present-day preventives. This same remedy will exterminate the small caterpillars that often infest both the Cherry and the Plum, as well as the Pear and Apple, when grown under glass. The injury done to these fruits often occurs before one is aware of it or even of their existence. For red spider the best remedy is the syringe and a sharp pair of eyes. If, however, the case is a bad one, some sulphur mixed with the water had better be applied with the syringe.

AFTER-TREATMENT WHEN PLACED OUTSIDE.

When the crop is gathered, in the case of forced trees the house is freely ventilated and the syringe is as freely plied, in order to harden the trees and to cleanse them from any insect pests. In a week or ten days the trees will be fit to go outside, the house being well cleansed afterwards and the second lot of trees for autumn fruiting brought from where they may have been kept—crowded together possibly in an improvised shelter but with their fruits set. The trees that have fruited can take their place or be plunged entirely in the open. Plunging is strongly urged, as it saves watering to a considerable extent, and not only that, but the trees will root freely into the plunging material, both from the surface roots that have taken hold upon the top-dressing, and from the bottoms of the pots oftentimes. A good plunging medium is ashes that have been screened after coming from the stokehole. Some, at any rate, should be used at the base of the pots to prevent worms from entering. We usually plunge over the rims of the pots so that no pot is visible. When lifted for potting in the autumn, the amount of roots that have been made will be somewhat surprising. The hose is used out of doors for watering and for giving a good wetting overhead in hot weather. In plunging, we usually prefer to give the Cherries a somewhat shady position, keeping the Peaches and Nectarines in the open, also the Plums. Care must be taken that the trees do not suffer for want of water, otherwise the foliage will suffer too. With a little experience, however, the exact state of the trees in this respect can be gauged fairly well.

JAMES HUDSON, V.M.H.

(*To be continued.*)

THE ROSE GARDEN.

ROSE EYNSFORD BEAUTY.

THIS lovely single Rose is a dwarf sport from the beautiful American Pillar, which created so much interest when shown last year. Like its prototype, the flowers of Eynsford Beauty are large and of a charming pink hue, this lour fading to creamy white at the bases of e petals. In addition they are deliciously agrant. The blooms are said to last a very ng time when open, a trait that will render it most valuable variety for decorative purposes. t present the plants show no signs of reverting ck to American Pillar. The blooms are freely rne in clusters, as ill be seen in the companying illus- ation. This sport s been secured by essrs. H. Cannell d Sons of Swanley, ent, who, it will be membered, ex- bited American illar so finely st year. Eynsford eauty was shown by em at the Royal Hor- cultural Society's eeting on the 4th st., when the plants eated a considerable mount of interest.

ROSE HECTOR MACKENZIE.

HIS fine Hybrid Tea ose was much ad- ired at the Paris ial of new Roses last ar. It is one of the st M. Guillot has ven us for some time d will certainly add his fame as a raiser. reminds me much one of Messrs. A. ckson and Sons' autiful Roses named amie; in fact, it ems to come midway tween this shapely d fragrant Rose and e old and excellent me. Isaac Pereire. is very vigorous, aking, if desired, a lar Rose or semi- mber, and should grand as a standard. is very free-flower- g and, as we might pect from the style flower, very fra- ant. It is strange at such a Rose ould have sprung from two Roses like somane Gravereaux and Liberty, but so is reputed, and I quite believe it, although know it is difficult at times to accept genuine the parentage as announced by isers. My experience in hybridising Roses has ng since dismissed the doubts from my mind ch as I used to have upon this point, for the riations are really so remarkable, and one uld not believe them unless one were certain of s own records. That excellent judge of Roses, r. E. G. Hill of Richmond, U.S.A., told me he s much impressed with this Rose at Paris. It one all lovers of the Rose should either bud or ocure plants of this season. It is a pure delight notice the increasing interest in hybridisation, ich means so much for our gardens. P.

ROSE EYNSFORD BEAUTY. (*Natural size.*)

THE GREENHOUSE.

CINERARIA FLAVESCENS.

AS described on page 247, this Cineraria marks quite a new departure as regards colour, and may be regarded as the first step towards a yellow-flowered form. It is the result of a cross between the well-known Feltham Beauty and Senecio auriculatissima, a parentage that is of special interest. The colour when the flowers open is pale canary yellow, this changing to creamy white as the flowers age. It was shown before the Royal Horticultural Society on the 4th inst. by Messrs. J. Veitch and Sons, Limited, Chelsea, when it received an award of merit. We were delighted to see this beautiful flower, and foreshadow great results in the future. Messrs. Veitch and Sons have accomplished much for those who love their gardens, and this new departure we welcome.

NOTES ON ORCHIDS.

(CYMBIDIUMS.)

FOR the most part the members of this stately genus are terrestrial, and are characterised by their short, stout pseudo-bulbs and long, narrow leaves. When given generous treatment they thrive and produce graceful arching sprays of large and attractive flowers, which last in full beauty from eight to ten weeks; but to see them at their best we must aim at growing specimen plants, particularly of those belonging to the lowianum section, which embraces giganteum, the ivory white eburneum, traceyanum, eburneo-lowianum and grandiflorum (hookerianum). The last named, however, does not open its blossoms so freely as Orchid-lovers would have it, and it is only occasionally that its fragrant blossoms are seen; but I have found, by keeping the plant fairly dry at the base while in a dormant state and placing it in the cool house, a certain amount of success has been achieved. The beautiful C. insigne (Sanderii), which has recently been re-introduced in quantity, should certainly find a home in every collection, for it is indeed an acquisition and a gem among Cymbidiums. There are many more that one might mention, but they are not so amenable to cultivation and, therefore, not included in the present article. The majority have just passed out of flower, and the repotting should be done without further delay. All are strong-rooting subjects, and, having selected a plant which has filled its receptacle with roots, another, two sizes larger, can be provided, first placing a thin layer of drainage, then a little fibrous loam, after which it is ready to receive the plant. The compost consists of good fibrous loam one-half, lumpy peat one-fourth, and partly decayed Oak leaves one-fourth, with a sprinkling of finely broken crocks, well mixing the whole a week or so before it is required. Press the soil moderately firm to within 1 inch of the rim, and blend the final layer with a few live heads of sphagnum moss.

Healthy specimens are moved on intact, but if any are in a bad condition at the base, somewhat drastic measures must be adopted; all the old soil and dead roots are removed, also some of the back bulbs if they are numerous, two behind each lead or growing point being ample. A smaller pot is usually needed with a few more crushed crocks in the potting material, and after such an operation careful watering and extra shade should be the rule, when fresh roots soon appear, thereby causing renewed activity.

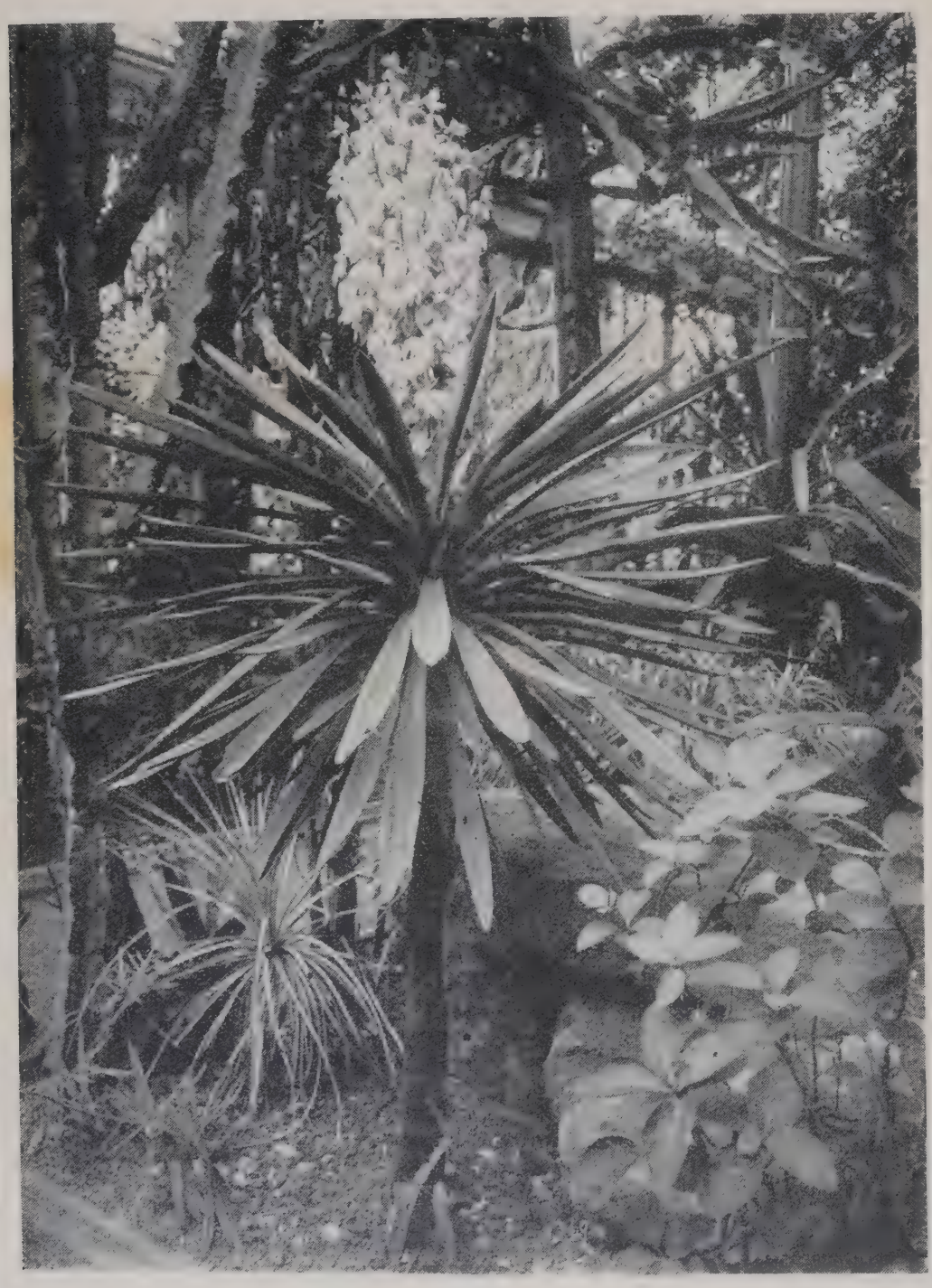
The intermediate house is best for Cymbidiums, where the temperature never falls below 50° Fahr., with a rise of 10° or 15° for the summer months; but it must be borne in mind that a high temperature combined with a dry, stuffy atmosphere is not conducive to luxuriant growth and floriferousness. Newly potted plants need a good watering to settle the soil about the roots, and afterwards only sparingly till they are re-established, when it can be applied in greater quantity with advantage; in fact, they

ought never to suffer from drought at any period, although when at rest the supply is less.

Shading is necessary from April to September, whenever the sun is bright, and canvas blinds are recommended in preference to a permanent shading, because they can be rolled up when not required, and thus the inmates benefit by the extra light. A light spray overhead is advised during hot and dry weather, and a damp down between the plants twice or thrice each day. Insects are not numerous, excepting a small brown scale which is sometimes troublesome, but when this is noticed sponge the leaves and pseudo-bulbs with a weak solution of some reliable insecticide (there are several advertised in THE GARDEN), and repeat at intervals of a fortnight till the pest is eradicated. SENTINEL.

YUCCA TRECULIANA CANALICULATA.

THE hardy species of Yucca which are represented by several ornamental sorts, of which the common Adam's Needle (Yucca gloriosa) is a worthy example, are well known to horticulturists. The more tender sorts, however, which in the majority of gardens require intermediate house culture, are not so well known, though many have much to commend them. The giant species from Guatemala, Y. guatemalensis, for instance, is of great decorative value for large structures such as winter gardens, as it rises to a height of 30 feet or 40 feet, with an immense head of large, deep green leaves, from the centre of which large panicles of whitish, fragrant flowers arise. Though the plant now under notice cannot compete with that species in size, it forms a very nice specimen, and a glance at the illustration will be sufficient to show that it is of a decidedly decorative character. It was known half a century ago, and a figure of it was prepared for the *Botanical Magazine*, t. 5201, in 1860. Like many similar subjects, however, it never appears to have become common, and it is only in a few places that good examples are to be found. It is a native of Mexico, and the specimen under notice is about 4 feet high, with a large head of leaves, each of which is from 2 feet to 2 feet 3 inches in length and 2¼ inches to 2½ inches in width. The upper surface of the leaf forms a channel by the manner in which the sides incurve. In colour the leaves are greyish green and they are very thick in texture. The inflorescence is in the form of an upright panicle 2½ feet to 3 feet in height and 15 inches through. The flowers are large, cream coloured and borne in profusion. This particular plant is planted out on a rockery in an intermediate house and is growing in loamy soil. In that position, which, by the way, is exposed to full sun, it is perfectly at home, and attracted much attention when in flower. M.



YUCCA TRECULIANA CANALICULATA IN THE MEXICAN HOUSE AT KEW.

VANILLA AROMATICA.

BEING the only fruiting Orchid of any economic value in cultivation, this plant is one of the most interesting of tropical fruits. Grown on the back wall of a lean-to house facing south-east, with its main shoots trained close to the glass, it bears bunches of fine fruits, each bunch 6 inches to 9 inches in length and twelve to twenty fruits to a bunch. It requires very little soil to grow in, as it obtains nourishment by means of its long aërial roots. Like many other Orchids, it needs drying off in the winter months until it throws spikes for bloom; then it should be damped over twice daily until the flowers open, which should be about the end of March. Great care must be taken to watch for the blooms, as they last but two or three hours and they must be artificially fertilised during that period. After all the flowers are set, syringing should take place again. When the pods are black and about three-quarters of an inch in length, they should be gathered and carefully folded (singly) in tissue paper in packets of twelve, tied up with cotton; then the pods will turn quite black, when they are fit for use. J. RACKLEY.

COLOURED PLATE.

PLATE 1874.

BEGONIA CLIBRANS' PINK.

THIS new winter-flowering Begonia is a splendid example of a new set that Messrs. Clibrans of Altrincham, Manchester, have raised by crossing Begonia socotrana with tuberous varieties. As will be seen by the accompanying coloured plate, both foliage and flowers are of a highly ornamental character, and a batch of such plants in a greenhouse in mid-winter would be both beautiful and interesting.

The culture of this does not differ to any great extent from that given to the well-known Gloire de Lorraine group, the value of which is, of course, highly appreciated. Cuttings are taken from the old plants at intervals from April till August and rooted in a temperature ranging from 65° to 70°. When rooted, pot off separately into 3-inch pots and grow on in a temperature 5° lower than that given above, potting into larger-sized pots as the smaller ones become filled with roots. After flowering, water must be gradually withheld and the plants kept rather on the dry side until growth commences again, when the supplies can be increased. Suitable soil for these Begonias is composed of good loam three parts, leaf-mould one part and silver sand one part, with a little well-decayed manure added for well-rooted specimens.

The variety Clibrans' Pink received the distinction of an award of merit when shown before the floral committee of the Royal Horticultural Society on November 10 last, an honour that all who saw it agreed was well deserved. Good winter-flowering plants are none too plentiful, and Messrs. Clibrans are to be congratulated on adding this beautiful Begonia to those already in existence.

THE FLOWER GARDEN.

CLIMBING PLANTS IN THE OUTDOOR GARDEN.

DURING the summer months many highly artistic gardens owe a considerable portion of their beauty to the free but judicious use of climbing plants, and, considering the ease and rapidity with which many of the subjects which come under this heading can be raised, it is not surprising that we find them grown more extensively every year.

Climbing plants are usually grown for one of two purposes, viz., to hide up ugly walls, fences, or corners, or to form arbours or pergolas under which the owner may seek shelter from the hot rays of the summer sun, and yet at the same time take full advantage of the fresh air and enjoy the fragrance of the other occupants of the garden. Again, these plants may be roughly divided into two sections, viz, those of a more or less permanent character and those which are annually raised from seed. Naturally, the former will be employed where a permanent covering is desired; but there are many places where it is more convenient to use those of a fleeting character, and it is to these latter that attention is now specially directed.

Among these we have the so-called Climbing Nasturtium, Morning Glory (Convolvulus major), Canary Creeper, Sweet Peas, Cobæa scandens, Runner Beans, Vegetable Marrows and ornamental Gourds, to name only a few, and all of which are excellent for quickly forming a screen or hiding ugly walls or fences. Where they are to be used for the last-named purpose, it is of little use to think of training them direct on the wall or fence, as, owing to their vigorous and rapid growth, one's whole time would be taken up in fastening the growths thereto. A better

THE NEW WINTER-FLOWERING

way is to put in stout Pea-sticks a few inches from the wall, or even coarse wire-netting, wooden trellis or strands of wire will do, and let the climbers ramble over these almost as they like.

As for all other plants, the soil for these will need some preparation, and as leafage is usually more desired than flowers, it should be deeply dug and well enriched with well-rotted farmyard manure, taking care to keep this well down from the surface. With the exception of Sweet Peas, all those named are best planted early in June, and as young specimens can always be procured cheaply at this season from a nurseryman, a fine effect may be produced at a small cost. Of course, if desired they can be raised direct from seeds, but it is now fully late for sowing these.

Owing to their position these summer climbers frequently suffer severely from dryness at the roots, a condition that ought not at any time to be allowed. In addition to the applications of clear water, the plants will derive considerable benefit from soakings of weak liquid manure at intervals of about ten days, but a good watering with clean water must be given an hour or two before applying the manure.

Where a temporary arbour is desired, it is an easy matter to construct one with the longest and most pliable of the Pea-sticks. These should be thrust firmly into the ground to form the shape desired; then their pliant tops may be bent over and tied together to form the roof. A formation of this kind when clothed with Canary Creeper and Morning Glory is decidedly useful and ornamental, but where the latter plant is used the situation should be a sunny one. A plant not yet mentioned, but one which, though only effective in the summer months, is of a permanent character, is the common Hop, a climber that ought to be grown for summer effect in our gardens much more than it is at present. Roots can frequently be procured from the hedgerows during late autumn, and when once established the pretty green shoots are produced annually in increasing quantities, the handsome, Grape-like clusters of blossoms which follow in the autumn lending an additional charm to this native climber. For the town gardener who usually has a plethora of ugly corners and fences to hide, the plants here named are of the greatest value and lose none of their charm through being cheap.

AN UNCOMMON BULBOUS PLANT (BRODIÆA UNIFLORA).

Tulips, Daffodils, Crocuses and similar bulbous plants are very lovely and well worthy of their present popularity; but everyone likes a change, and it is a relief to enter a garden where uncommon bulbous subjects are made a conspicuous feature. Those who delight in the unique and original should not fail to obtain a few bulbs of Brodiæa uniflora, a charming introduction from Buenos Ayres. Most members of the Brodiæa family produce their blossoms in umbels or clusters of some kind; but this species bears flowers, which measure about 2 inches across, singly on dark, slender stalks about 1 foot in length. The blossoms vary slightly in colour, some being pure white, while others are white with a line of soft blue down the centre of each petal. This line is never at all hard, but the colouring fades gradually away into the rest of the petal, which in some cases it covers entirely. On the outer side of the flower there is a dark brown instead of a blue line; but as the petals of fully opened flowers spread out horizontally this colouring is scarcely noticeable except in the bud. The blossoms just described are produced during April, and one of the charms of the plant is that its flowering season is unusually long.

The leaves are dark green in colour and about 6 inches to 8 inches long. Owing to their tendency to grow outward they seldom rise more than 1 inch or 2 inches above the soil level.

Brodiæas like a warm, sandy, well-drained soil, and though some of the species are said to be rather tender, B. uniflora has proved itself perfectly hardy at Kew. The bulbs seem to like to be left undisturbed until they become overcrowded, when they usually show signs of deterioration, and benefit by being lifted and divided. B. uniflora is well adapted to pot culture, and is consequently a valuable plant for the cold greenhouse. For this purpose the bulbs should be potted or panned up during September in a compost consisting of two parts loam to one of leaf-soil and one of sand. They should then be plunged in ashes in the open, where they may remain till the flower-buds appear, when they should be brought under glass.

SWEET PEA CHAT.

Tying Out.—So many inexperienced growers, notwithstanding the advice to the contrary that is repeatedly being given, either set the seeds too thickly and neglect to thin the plants out sufficiently, or, when they raise the seedlings in pots, put out the mass of soil and roots intact, that the operation of training is of considerable importance. If the principal growths are allowed to run up in a muddled mass, it is perfectly certain that the blooms will not be excellent in respect of colour, form or substance; but matters can be substantially improved by taking the trouble to draw out the shoots and attach them to stakes in positions where there is abundance of space for proper development. In practically all cases, tying out of the growths in the earliest stages is imperative to draw them into the desired directions, but beyond this, if plenty of space has been allowed, nothing more will be needed. Thus it is seen that the grower who neglects the apparently unimportant details at the outset simply makes work for himself later on. In attaching the ligature it suffices if it brings the shoot into the correct place; it must never be drawn tightly, or the progress of the plant will be arrested.

Thinning Shoots.—This is another operation to which sufficient importance is not attached by the majority of amateurs, who appear to think that the more growths they have, the more flowers will be produced and the longer the display will last. The fact is, however, that the reduction of the number of leaders tends to the advantage of the cultivator in all directions; but it should be done with the care and thoroughness that would be devoted to the removal of superfluous buds and shoots in Peaches and Nectarines. Plants grown in lines or clumps at distances of from 12 inches to 18 inches asunder should never have more than four main shoots, and if there are only two the blooms will be vastly superior in length of stem and substance. The removal of shoots that are obviously not required should commence very early; but rather than neglect it entirely, it can be done now that the plants have made considerable progress. Only retain as many as can have the benefit of full light, but do not cut out three or four at one time, or a shock will be given to the plant from which it will not quickly recover.

Surface Cultivation.—In order to conserve the moisture in the soil and thus ensure that the plants shall have the benefit of all the food that was worked in, it is necessary that surface cultivation shall be most persistently followed up. There will be a considerable amount of traffic between the rows and it will be essential to occasionally apply water, and both will drive the soil down into a solid mass into which air cannot penetrate, but out of which food-laden moisture can always find an easy way. Either the Dutch or the draw hoe, or better still both, should be used at frequent intervals, in order to keep the top inch or so of soil in a constant state of dust, as this has a wonderful power of keeping the moisture in. It is impossible to hoe too often, provided that the surface is in a suitable condition for working.

A GOOD CLUMP OF BRODIÆA UNIFLORA.

Mulching.—There is still another method by which all the food in the soil can be ensured to the plants, and it is even superior to surface hoeing; this is by the aid of mulchings of manure. If we have recourse to these, not only do we prevent the waste, but at the same time we provide food, since the nutrient properties of the manure will steadily be washed down, and as certainly as this happens the roots will promptly take full advantage of them. Whether long litter or short manure is chosen for this purpose must necessarily depend upon individual circumstances; but the preference should be given to the latter as yielding more food, not being so likely to settle down into a close mass, and permitting the free passage of air and water to the soil beneath. In either case, when heavy watering is needed the material should be drawn back to the middle of the alleys and be replaced again when the surface has dried a little.

Spencer.

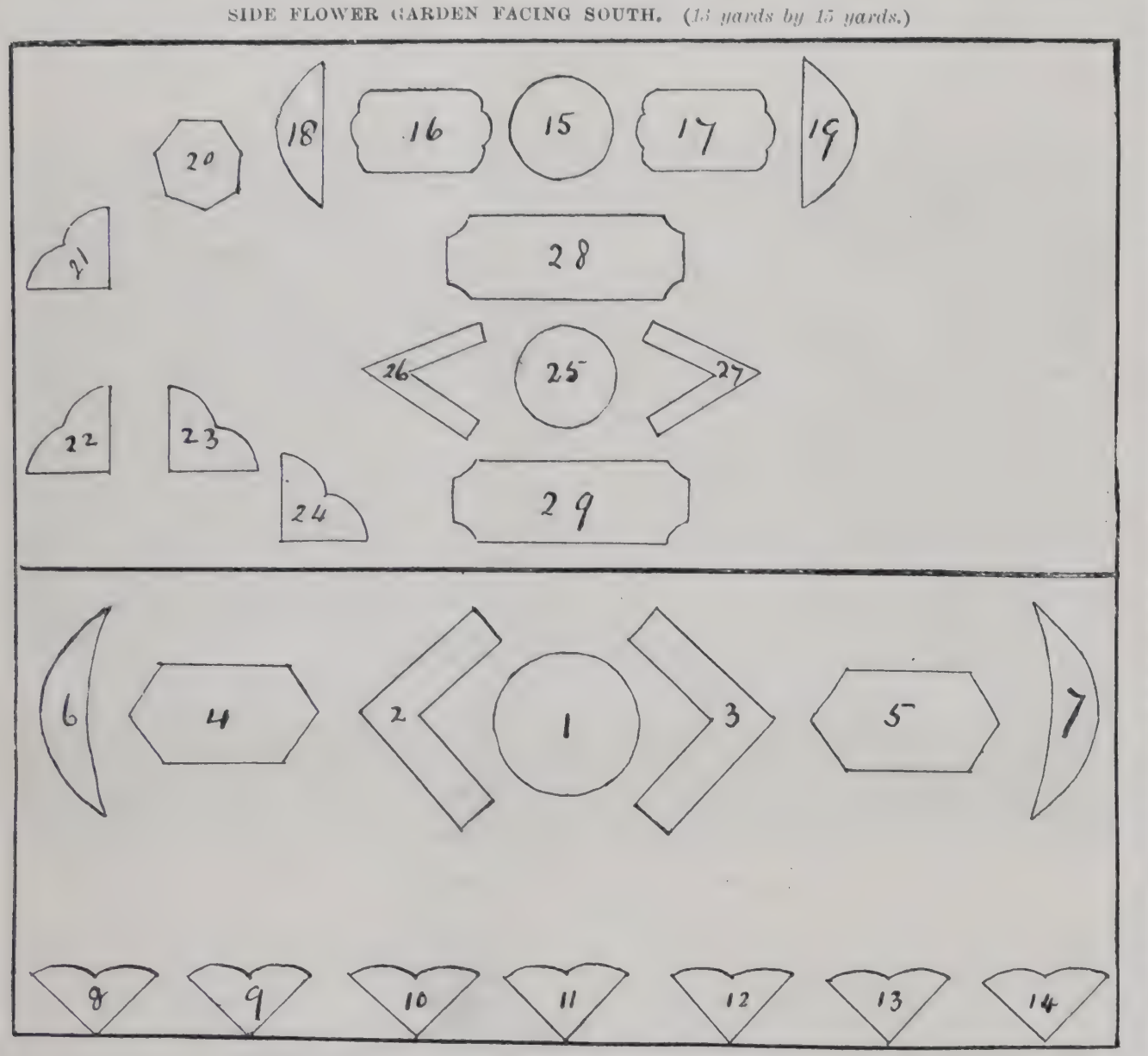
GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Plants that were set out in the herbaceous border or beds late in the spring will now derive considerable benefit from good soakings of water should the weather prove at all dry. Although apparently growing well, they will quickly feel the least dryness of the soil and a severe check will follow. In addition to the watering, a mulching of short manure around such as Phloxes and Pyrethrums will be of considerable assistance. Established Phloxes, especially where the soil is of a sandy character, must also have these details attended to. Some of the hardiest of the bedding plants may now go to their summer quarters, where these are ready to receive them; but generally bedding out is best deferred until the first week in June. Annuals are now growing very rapidly and thinning must be persistently attended to. In many instances, such as Clarkias, Godetias and annual Chrysanthemums, where the roots are of a branching character, the seedlings that are taken out may be utilised for filling gaps elsewhere, but it is necessary to choose a rainy day for the purpose. Many plants, such as the Madonna Lily, Delphiniums and other tall-growing subjects, will now or shortly need staking, and this work must not be neglected. Aim to tie each shoot out in as natural a position as possible, and avoid the oft-repeated error of placing a stake in the centre of the plant and tying all the growths tightly to it, so that the plant when finished looks like the bulky gamp so persistently carried by the famous "Sairey."

Vegetable Garden.—Busy as bees will be the owners of vegetable gardens at this season. Weeds and crops are all growing at a tremendous pace, and hoes must be kept bright and keen if the weeds are to be kept in check. Early Potatoes need a slight earthing up, but on soil of a sandy character this must not be overdone, else roots are brought near the surface and the plants thereby suffer should the weather prove very dry. The thinning of such crops as Onions, Carrots, Parsnips and Turnips should be continued; the early Carrots may be left fairly thick, as the roots can be drawn out and used as soon as they are as thick as one's little finger, thus making room for those that remain. French Beans that were sown under glass, as advised a few weeks ago, are now growing rapidly, and they must be afforded all the light and air possible; it will not be safe to plant them out until next week, and then they must have protection from very cold winds for the first few nights. A good plan is to place a large inverted flower-pot over each plant. Leeks are a vegetable that should be grown far more extensively by amateurs than they are at present. Although for exhibition purposes they should be planted in trenches the same as Celery, good specimens may be grown on the level ground by planting now. Make the rows 18 inches apart, and allow a distance of 1 foot between the plants, which must be inserted deeply. Leeks like well-trenched and rich soil.

SIDE FLOWER GARDEN FACING SOUTH. (*15 yards by 15 yards.*)



FRONT FLOWER GARDEN FACING EAST. (*20 yards by 5 yards.*)

Greenhouse and Frames.—The hot-bed frame, which has been used for the raising and subsequent accommodation of bedding plants and similar material, will now be empty, and unless the manure of which the bed was formed is required for any other purpose, a Cucumber plant or two may be placed in the frame, one plant to a light being sufficient. Under the centre of each light place about a bushel of good fibrous loam in rather a coarse condition, and allow this to remain, with the frame nearly closed, for two days and in the form of a mound. After this time a plant may be put in the centre of each mound and watered in, keeping the frame nearly closed afterwards. A light syringing of the soil and sides of the frame will be needed morning and afternoon, closing the lights right up about 4 p.m. Light shading will also be necessary.

Fruit Garden.—All trees growing on walls will at this season be greatly benefited by light syringings when the weather is hot and dry, this freeing the foliage from accumulations of dust and also keeping insect pests in check. All fruit plots will need constant attention as regards hoeing, as weeds grow rapidly and soon get the upper hand if neglected for a short time. Gooseberries have set well, and as soon as the fruits are large enough to use they should be thinned, thus giving those that remain a chance to develop freely. This is a point frequently neglected by amateurs, who usually gather all from one or more bushes for use in a green state and allow the others to grow unthinned. H.

SUMMER BEDDING FOR EFFECT IN A SMALL GARDEN.

HERE are the plans of two flower lawns with a total space of ground measuring 33 yards by 20 yards and containing twenty-nine small beds, which were planted last summer as follows:

Bed No. 1.—One standard Heliotrope in the centre, surrounded by four standard Fuchsias, two standard Artemisia arborescens, eight standard Geranium Paul Crampel, four standard Eucalyptus, filled up with Kochia trichophylla, Coreopsis grandiflora, Anthericum variegatum, Zea japonica, Panicum plicatum, little light red Begonias, Chamæpeuce Diacantha (Fish-bone Thistle), Mesembryanthemum cordifolium variegatum, and bordered with white Alyssum and Lobelia.

Bed No. 2.—One standard Sutherlandia frutescens, two standard Lemon-scented Verbena, one standard Abutilon vexillarium variegatum, with edging of Alternanthera versicolor grandis and groundwork of Fuchsia Cloth of Gold.

Bed No. 3.—Same as No. 2.

Bed No. 4.—Eucalyptus cordata, Coreopsis, Iresine Herbstii, Zea japonica, Kochias, Ivy Geranium, bordered with Lobelia and Alyssum.

Bed No. 5.—Same as No. 4.

Bed No. 6.—Two standard Gnaphalium macrophila, two standard Artemisia arborescens, one standard Tropæolum Fireball, with groundwork of Verbena venosa, edged with Geranium Little Dandy and Lobelia.

Bed No. 7.—Same as No. 6.

Bed No. 8.—Three standard Sutherlandia frutescens, two standard Solanum pyracanthum, with groundwork of Geranium Mrs. Pollock and Anthericum variegatum, with edging of Alternanthera versicolor grandis.

Bed No. 9.—Dwarf Geranium Paul Crampel, edged with Alyssum and Lobelia.

Beds Nos. 10, 11, 12 and 13.—Same as No. 9.

Bed No. 14.—Same as No. 8.

A PRIMROSE PLANT LIFTED FOR DIVISION.

Bed No. 15.—One standard Heliotrope in the middle, two standard Artemisia arborescens, four standard Fuchsia named Charming, four standard Eucalyptus cordata, two standard Gnaphalium macrophila, surrounded with Kochia scoparia tricophylla, Zea japonica, Anthericum variegatum, Chamæpeuce dicantha (Thistle), Mesembryanthemum cordifolium variegatum, Panicum plicatum, edged with Lobelia and Alyssum.

Bed No. 16.—Six standard Abutilon Thompsonii, surrounded with Sutherlandia frutescens, Verbena venosa, Zea japonica, Lobelia cardinalis, edged with Geranium Little Dandy.

Bed No. 17.—Same as No. 16.

Bed No. 18.—Two standard Fuchsias named Lye's Own, two standard Lemon-scented Verbena plants, with groundwork of Iresine Brilliantissima, edged with white Alyssum and Lobelia.

Bed No. 19.—Same as No. 18.

Bed No. 20.—Four standard Fuchsias named Lye's Own, two standard Tropæolum Fireball, four standard Abutilon Thompsonii, four standard Artemisia arborescens, surrounded with Perilla nankinensis, Browallia speciosa major, Ivy Geranium, Coreopsis grandiflora, edged with Lobelia and Alyssum.

Bed No. 21.—Four half-standard Artemisia arborescens, with groundwork of Anthericum variegatum, Coleus of all shades, with edging of Lobelia and Alyssum.

Bed No. 22.—One standard Tropæolum Fireball, three standard Heliotropes, two standard Lantana delicatissima, Solanum jasminoides climbing up standard stems, surrounded with Coreopsis grandiflora, Mesembryanthemum cordifolium variegatum, yellow Lantana named Drap d'Or, edged with Lobelia and Alyssum.

Bed No. 23.—Four standard Heliotropes, one standard Fuchsia named Lye's Own, six standard Geranium Paul Crampel, Tropæolum Fireball climbing up Fuchsia standards, with groundwork of Coreopsis grandiflora, Zea japonica, Mesembryanthemum cordifolium variegatum, edged with Lobelia and Alyssum.

Bed No. 25.—One standard Heliotrope in the middle, eight standard Fuchsia Mrs. Rundle, four standard Geranium Paul Crampel, two standard Artemisia arborescens, four standard Eucalyptus cordata, with groundwork of Kochias, little red Begonias, Anthericum variegatum, Mesembryanthemum cordifolium variegatum, Panicum plicatum, edged with Lobelia and Alyssum.

Bed No. 26.—One standard Abutilon vexillarium variegatum, two standard Sutherlandia frutescens, two standard Fuchsias named Charming, with groundwork of Coreopsis grandiflora, Iresine Herbstii and Alonsoa Warscewiczii.

Bed No. 27.—Same as No. 26.

Bed No. 28.—Six standard Heliotropes, four half-standard Lantana delicatissima, with groundwork of double Begonias and Humea elegans, edged with Lobelia and Alyssum.

Bed No. 29.—Six standard Lantana delicatissima, nine standard Solanum jasminoides, with groundwork of yellow Lantana Drap d'Or, white Geranium Hermione, white Veronica, edged with Lobelia and Alyssum.

The above arrangement of beds and harmonising of planting had a beautiful effect. How often one sees gardens so arranged that a plot of grass occupies the centre, with a border all round the outside (generally under a fence or hedge) and a gravel walk between the outside bed and lawn. Why should we not have grass all round the outside close up to the hedge or fence for a change, no gravel paths and beautiful artistic beds cut out about the lawn? Plants would thrive much better with the additional light and air, and one would be able to get a much finer floral effect. Nine years ago my garden was an ugly plot of ground with so-called flower borders under hedges never properly made, so that plants could not possibly thrive. All these borders I did away with and cut out fresh beds as shown in the illustration on page 256, and I have never regretted the cost. I have been well repaid in being able to bed out certain sub-tropical plants under proper conditions, and obtain the same effect on a miniature scale as that displayed in the floral sections of many of the municipal parks.

I should add, the better the attention given to the turf on the flower lawns, the better will be the appearance of these different-shaped beds. I should also like to say that most of these plants require to be wintered in a stove house not less than 50 feet by 8 feet, with a minimum temperature of 50°.

On the right of the side flower garden is a pergola with Roses Crimson Rambler and Dorothy Perkins. H. J. SELBORNE BOOME.

Holwell Hyde, Hatfield, Herts.

INCREASING PRIMROSES AND POLYANTHUSES.

POLYANTHUSES have been cultivated in gardens for years. Formerly they were largely increased by division; at the present time, however, raising the plants from seeds is the method largely adopted. Named varieties are not so popular as they were a few years ago. They come fairly true to colour from seeds. The following five colours are those usually found in nurserymen's catalogues, of which seeds are offered in separate packets — white, yellow, purple, crimson and gold-laced.

Double Primroses.—According to writers in old gardening books, these plants have been cultivated in this country for close on two centuries. In the North of England, Scotland and Ireland they thrive much better than in the South. A slightly shaded, moist position should if possible be given them. Double Primroses being weaker in growth, generally speaking require more attention. The stock is increased by dividing the roots immediately after flowering ceases. If, however, no more plants are needed, they should be left undisturbed for several years. They are not so satisfactorily grown for spring bedding as the single varieties, lifting in spring and autumn not suiting them. Most of the sorts are named according to the colour of the flower, as Double White, Double Sulphur, Double Mauve, Double Crimson, &c. Other named varieties worthy of mention are Arthur Dumollin (double violet) and Paddy (double red).

STAKING BEDDING-OUT PLANTS.

THERE are many bedding plants that must be supported with stakes if they are to attain to and keep their full beauty. Two mistakes most frequently made are delaying the work and then, probably owing to undue haste, doing it indifferently. If the stem or stems of a plant once fall away from their natural position and remain so for a few days, they rarely afterwards have an entirely satisfactory appearance.

The cultivator must so fix the stakes and fasten the plants to them that the specimens will retain their natural habit throughout the season. The ligatures must be made so that the stems of the plants will have room to swell and neither be cut into nor bruised. It is impossible to entirely hide the supporting stakes, but they must be placed with the object of obscuring them as much as possible. SHAMROCK.

TWO PIECES OF A DIVIDED PLANT, EACH SUITABLE FOR PLANTING TO FORM A NEW SPECIMEN.

THE TOWN GARDEN.

NORTH BORDERS.—In many gardens in towns the north border is the only one available for use as a flower-bed. The reason why the plants generally grown in these north-aspect borders are so often unsatisfactory is because they are unsuitable. There are certain kinds of summer-flowering subjects that will not succeed unless they are grown in the sunshine, and so it is unwise to plant them in a position where the sunrays will not reach them. The following will prove very satisfactory in a north border: French and African Marigolds, Tagetes signata pumila, Dianthuses, Raby Castle border Carnation, Pansies and Violas, Mignonette, Virginian Stock, the Night-scented Stock (Matthiola bicornis), Gaillardias, Calliopsis, Fuchsias, Calceolarias, Marguerites, tuberous Begonias, Limnanthes Douglasii and dwarf Lupines. The amateur will readily see how easy it is to obtain a very nice display of flowers in a north border at a comparatively small cost.

HOW TO PREPARE THE BORDERS.—The soil is rarely too rich in a town garden, on account of the difficulty of obtaining good fibrous loam and manure. The north border should, however, not be very rich, as it would be unwise to force a very luxurious growth, for such would not bear flowers freely. The important point is to deeply dig the soil and thus prepare a free-rooting medium for the plants. If the soil is very poor, put in some well-rotted manure; if it is good, a small quantity will suffice to promote a healthy growth.

HARDENING BEDDING-OUT PLANTS.—The work of bedding-out the plants must be done during the early part of June, and in the meantime the plants must be prepared. It is unwise to take them from a warm frame and fully expose them suddenly. They ought to be partly exposed and protected for about a fortnight prior to the planting. The specimens must be left quite uncovered during the daytime and covered with some thin material at night; and for nearly a week before being planted in the open border they must not have any covering at all. Purchased plants often look very well at the time, but fail afterwards and do not recover their healthy appearance before the summer is well advanced. This is because they have not been gradually exposed to the open air. My advice to amateurs who have to buy their bedding-out plants is to insist upon being supplied with plants that have been exposed to the open air for some time.

CLIMBING PLANTS.—The young shoots of Roses, Jasminum, Honeysuckle, Ivy and various other plants are now making rapid growth, and should be duly fastened to the wall, trellis or post, as the case may be. Where these young shoots appear to be overcrowded, they must be thinned out, as it would be useless to retain them all. Many climbing plants on walls get very thin and straggling near the base, so that it is advisable to tie in carefully the young shoots growing there.

TOMATOES.—These plants are grown in many curious positions in town gardens, but there is no reason why more should not be cultivated. The plants grow quickly, make a fine covering for a rude fence or unsightly wall and are also profitable. The plants must be treated as tender annuals; frost at night at this season will kill them, so that no planting out must be done until all danger from it is past. In the meantime, having selected the position, the cultivator must prepare the border. Where borders are not available, large flower-pots, tubs and boxes may be used. In the latter case sound drainage is very essential and a moderately rich, firm compost. In the case of the outside border a firm rooting medium must be provided, so that the plants will be short-jointed and fruitful. Manure need not be put in at all. The necessary feeding can easily be done later. AVON.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUIT HOUSES.

PEACHES AND NECTARINES in houses where the fruits have passed stoning may be safely pushed forward and given a night temperature of 65° and a rise to 80° by day in bright weather, with ample ventilation. Close the house about 3 p.m., reducing a portion of the air a short time previously, and maintain plenty of atmospheric moisture by well syringing and damping down. Be very careful with the early American varieties as they approach ripening, airing more freely and thus allowing the pulp to ripen to the stone. Of these I usually gather the most forward a little under-ripe at intervals and place them in a fruit-room on layers of a soft material, where they ripen more satisfactorily. See that the borders do not lack moisture, but reduce this a little at the time of ripening. Keep pace with tying down the shoots and the removal of any which may not be wanted. Thin the fruits freely and early in all later houses, leaving the most even and those in the best position for sun and light.

Figs growing freely will require careful attention as regards moisture at the roots, which must not be allowed to get in too dry a condition, as this might result in the dropping of the fruits. When the latter are approaching the ripening stage less syringing is necessary; be content with damping the surroundings with the water-pot. To encourage a successional crop of fruit pinch some of the current year's shoots at four to six leaves; this tends to the formation of fruit and preserves the trees in a uniform state. If the roots are much restricted, give copious supplies of liquid manure and mulch the soil over the roots with manure; but this and the use of artificial compounds must be more or less regulated according to the strength of the wood.

Frame Melons.—These to ripen good fruit require very careful attention at all times. The growths must be kept well and regularly thinned and the young fruiting shoots stopped one or two joints above the flowers. When a good number of blossoms are open see that they are properly fertilised, air a little more freely and keep the foliage drier. Those which have set and are swelling nicely may be pushed forward by closing and damping early in the afternoon, and the lining of the frames may be renewed with a little fresh fermenting material.

Tomatoes.—As the fruits begin to change colour, remove them to lighten the crop and to give the plants a better chance to keep on bearing. When growing in pots and the soil is getting exhausted, feed liberally and do not let the roots suffer from dryness, otherwise white fly may become exceedingly troublesome.

PLANTS UNDER GLASS.

Agapanthus.—These in tubs require very liberal feeding and abundance of water to encourage them to bloom well and to build up strength for the following season. They are very gross-feeding plants and form immense quantities of fleshy roots, so that when potting they require great care to avoid damage.

Cyclamen.—These will have passed their flowering and the pots probably be standing in cold frames. The tubers, however, should not be altogether neglected and allowed to get too shrivelled by the strong sunshine. A cool frame and the pots stood on ashes is a very good position for the present. Young seedlings may be potted on in a little turfy loam and peat, with plenty of sand, and do not pot too deeply.

H. MARKHAM.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

CONSERVATORY AND GREENHOUSE.

CLIMBING PLANTS.—These are of great importance to the floral embellishment of lofty structures, and if their introduction and planting is contemplated, the present is a most suitable season to carry this into effect. For a rooting medium a good holding loam, that has been stacked long enough to allow of the partial decay of the root-fibres it contained, thus avoiding undue shrinkage of the bulk when in position, should form the staple, to which might be added a small amount of well-pulverised, but not exhausted, manure, and sufficient lime-rubble and coarse sand to ensure the necessary porosity. Where possible, the roots of the less vigorous-growing species are best confined to separate compartments, to prevent excessive appropriation of nutriment by others more robust. Ample drainage and a firm root-run are essential to success.

Plants for Cool Houses.—The following will thrive in a structure where frost is excluded, and are free in growth combined with great and varied beauty both in flower and foliage: Mandevilla, Tecoma, Plumbago, Tacsonia, Habrothamnus, Clianthus, Cassia, Stauntonia and Lapageria, the last requiring peaty soil and a position shaded in summer. To these may be added Tea and Hybrid Tea Roses in great variety, while some of the loose-habited Camellias are excellent for covering back walls and revel in shade and moisture.

In Heated Structures where a temperature of about 50° is maintained, such beautiful subjects as Passiflora quadrangularis and P. princeps, Luculia gratissima, Bougainvillea, Jasminum hirsutum and J. primulinum, and the slender-growing, quaint-flowering Rhodochiton volubile will all succeed. For these a compost of loam and peat in equal parts, to which some charcoal is added, is better than the heavier material alone.

Stove Plants will now be growing freely and close attention must be paid to shading, more especially during sudden gleams of sunshine after several dull days. Water freely applied about the stages, walls, and pipes will generate a growing atmosphere and considerably reduce the need of frequent supplies upon the soil. Anthuriums are among the most conspicuous plants in flower at this time, and as the blooms are very lasting, it is not advisable to allow them to remain upon the plants when their first flush of beauty is past, as when cut and placed in water they continue fresh for a considerable time, and the plants being thus relieved are enabled to recuperate.

Eucharis amazonica generally flowers best when root-bound; but this if carried to excess may end in starvation and gradual weakening of the bulbs. If repotting is decided on, the best time for doing so is after the plants have flowered and been rested for a few weeks, when disturbance just before growth again commences will have less injurious effects than at any other time.

Pancratiums that have finished growth may be kept rather drier at the roots, which will conduce to earlier flowering as well as the more lengthy season of these fragrant-scented subjects. The best potting mixture for these and Eucharis is loam and sand. Pot firmly and apply water very sparingly until the plants are again established. Crotons and Dracænas propagated in early spring will require repotting from time to time, using a rich compost of loam, peat and decayed leaves. These are best placed in a group so that syringing may be freely practised, whereby insect pests are kept in check and growth encouraged. The former may be gradually inured to full sunlight, as the rich colourings of the leaves are thus intensified. Dracænas, on the other hand, require shade during the summer.

JAMES DAY.
(Gardener to the Earl of Galloway.)
Galloway House, Garlieston, Wigtownshire.

THE EDITOR'S TABLE.

Sweet Peas from Winchester.

Mr. Donald Grant, Compton End, Winchester, nds us good flowers of several varieties of Sweet eas, these being most welcome so early in the ason. He writes, on May 6: "I am sending ou some Sweet Peas from the open. They were ut out on March 31 when about 3 feet 6 inches gh, and now they are nearly 6 feet high and ry strong. They are all good sorts and there e nearly thirty varieties, but they have not all egun to bloom yet. The stalks are firmer and nger than is usual in the summer."

St. Brigid Anemones from Ireland.

Messrs. Reamsbottom and Co., Alderborough ursery, Geashill, King's County, send us a magificent contribution composed of St. Brigid nemones, all the beautiful colours usually found mong these flowers being included. These are he finest and best St. Brigid Anemones we ave ever seen gathered from the open, and the train and culture must both be of the highest uality.

Oncidium lanceanum.

An exceptionally fine variety of this beautiful Orchid has been sent by Mr. H. A. Page, The Gardens, Belsize Court, Hampstead. The spike arried many blooms of fine colouring, the sepals nd petals deep gold, thickly covered with brown pots, and the lip light purple, deepening in the entre to an intense violet. It is one of the best forms we have seen of this Orchid.

A Beautiful Narcissus.

A very beautiful Narcissus comes from Mr. F. Herbert Chapman, Guldeford Lodge, Rye, one of our most enthusiastic amateur gardeners; this Narcissus is called May-day, and belongs to the Poeticus section. The flower is of remarkable substance and of bright colour. As our correspondent remarks: "By this post I send a few flowers of Narcissus Poeticus May-day. It is a very brightly coloured flower, and coming into bloom in an ordinary season about May 1, usefully fills up the gap between the earlier-flowering Poeticus and Poeticus recurvus."

Daffodils and Polyanthuses from Mr. Peter Barr.

It is with considerable pleasure that we have received some excellent Polyanthuses and a further lot of Narcissi from Mr. Peter Barr, V.M.H., who, as most gardening enthusiasts know, makes the collecting and growing of Primroses of all sorts a hobby at his Scottish home. Among the Narcissi were a host of the beautiful incomparabilis section, a few of the most beautiful being Lulworth, scarlet cup and creamy white perianth; Cynosure, similar but longer cup and golden yellow perianth; Hogarth, large yellow cup and paler narrow perianth segments; Stella; and Stella superba. Among the large trumpet sorts were such as J. B. M. Camm, Mrs. Camm, Monarch, Mme. Plemp, Admiral Togo, Maximus, Mrs. Walter Ware, Millie Barr, P. R. Barr and many other beautiful sorts. Mr. Barr has just sent us another very welcome box of Daffodils, comprising Barrii Princess of Wales, incomparabilis Princess Mary, i. Gloria Mundi, Barrii conspicuus, Leedsii Duchess of Westminster, L. Minnie Hume, Barrii Maurice Vilmorin, Leedsii Katherine Spurrell, L. Mrs. Langtry, L. White Lady, L. amabilis, incomparabilis Lulworth, Poeticus angustifolius, P. Elvira, Nelsoni minor, N. major, incomparabilis James Bateman, Burbidgei Baroness Heath, incomparabilis Stella superba and Barrii Sensation. Some of the most beautiful and rarest of the Poeticus forms are comprised among these, especially Poeticus Almira, P. Cassandra and P. præcox; but one of the sweetest of all is Leedsii Gem. The flower is of a delicate colour which is surely unsurpassed. We thank Mr. Barr very much indeed for sending such a selection.

Schizanthus from Chelsea.

Messrs. James Veitch and Sons., Limited, King's Road, Chelsea, send us beautiful examples of their selected strain of these charming greenhouse plants. The size of the flowers and the various colour shades are a delight, and the value of these plants ought to be more fully recognised than it is at present. Messrs. Veitch write: "We have pleasure in sending herewith a few blooms of our strain of Schizanthus (Veitch's Grandiflorus Hybrids). They not only make excellent pot plants, but are also fine for cutting."

Flowers From Scotland.

Dr. McWatt, Morelands, Duns, N.B., sends some interesting flowers, and the blue Polyanthuses were of great merit, the colouring as pure as anything we have seen; the same remark applies to the Primroses. Dr. McWatt writes: "No doubt Primroses and Polyanthuses deteriorate after the second year and should be renewed. I think the flowers are always best the first year, as these are. The seed should be sown in heat in early spring and the seedlings should be pinched out about this time, and then one has large flowering plants next year. They do well in moderate shade; the ground should be rich and not too dry."

Hybrid Saxifrages from Wales.

Mr. Lloyd Edwards, Bryn Oerog, near Llangollen, sends a beautiful collection of hybrid Saxifrages, the colour and size of which call for the highest praise. Our correspondent writes: "I am sending flowers of my new hybrid Saxifrages for your table. I have been working at them for some years and have succeeded far beyond my expectations, having all shades from pure white to deepest blood red. The weather has been so very sunny and the east wind so drying for the last week that they are not quite at their best, but you can see how beautiful they must be in masses. Some have very large flowers, such as Trevor Giant, which I am sending you. My largest red one, Red Admiral, for which I received a certificate from the Shrewsbury Horticultural Society last spring, is over. It is larger than a shilling. I think the great fascination about these Saxifrages lies in their variety. I should think I have fifty really different good ones. I am sending Saxifraga hybrida White Queen; Trevor seedling Apple Blossom, which is lovely for bedding; Trevor Giant, blush with pink buds; rubra sanguinea, which looks like drops of blood in the sun; and several pencilled and eyed ones not yet named. I also send a bunch of Aubrietia Lloyd Edwards, picked in full sun, where we have it for bedding. I have been years selecting it, and this one has stood all the long spell of sun and east wind and drought without losing its colour."

Flowering Shrubs from Woking.

Mr. Anthony Waterer, Knapp Hill Nursery, Woking, Surrey, sends us a delightful collection of spring-flowering shrubs, which remind us very forcibly of the decorative value of these at the present season. Among those that specially appealed to us were Pyrus Malus Scheideckeri, P. M. Neidwitzkiana (flowers deep old rose colour), P. M. alba pleno, Cydonia japonica cardinalis (very brilliant large flowers), C. j. Knapp Hill Scarlet, C. j. Simonii (nearly crimson in colour), Prunus sinensis flore-pleno, P. H. J. Veitch, P. japonica multiplex, the Knapp Hill variety of the Bird Cherry (P. Padus), Spiræa Exochorda grandiflora and the beautiful double mauve Lilac Leon Simon.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Crown Imperials (*Colonel A. C.*).—The good flowering of these Fritillaries depends upon the bulbs being well established and their individual size. The bulbs should be planted 6 inches or 8 inches deep, and the soil be moderately heavy though well drained. Generally speaking, the Crown Imperials are partial to rather heavy soils, lime-charged soils particularly; and given generous treatment otherwise, with liberal room for development, they will be found to succeed in due time. Small and medium sized bulbs may require two or three years to become established.

Double Primroses (*Quarry*). — Yes, these things may be divided as soon as the flowering is over, breaking the tufts into single crowns, provided each crown has its complement of root fibres. Some care will be necessary for a short time in shading and watering, and your greatest chances of success will be by planting on a north border in well-dug and fairly rich ground. These Primroses are very partial to soot-water applied overhead in the evening, and weak liquid manure may be similarly applied from time to time with advantage.

Green Daffodil (*D. L. Wadham*).—The bloom submitted is most interesting, and evidently, from your description of its surroundings, is either a sport or a seedling that has taken on a green colour. Unfortunately, the perianth was so shrivelled when it reached us that we are unable to judge of its colour and shape, but should say it was a form of the Old English Pseudo-Narcissus. The green in the trumpet is striking, and we cannot remember having seen such a thing before. Would it be possible to send us a bulb to grow or to send two or three fresh flowers next year? The green in flowers when ordinarily we expect colour is, of course, a reminder of their morphological value, namely, that the different parts are modified leaves. The appearance of green then is a sort of reversion to type.

Daffodils and fruit trees (*S. B. Cork*).—The mere fact of planting Daffodil bulbs among fruit trees does not conduce to canker in the trees any more than would planting other low-growing things; but the fact which, in certain cases, conduces to canker on the part of the trees is that, owing to the surface soil being cropped, it is not possible to keep it cultivated and clean and to manure it in the same way that such cleaning and manuring can be done when the ground is not so cropped; hence the tree roots, for lack of this manuring or feeding, and also because the surface crop is robbing the tree roots of what food they should find in the surface soil, are forced to go deep into sour or poor soil, and it is then that canker follows. Fruit trees to be kept healthy should have clear soil about them and be occasionally surface manured to encourage roots to run freely in the sweet surface soil.

Daffodil for inspection (*G. Grove*).—The Daffodil is simply a weakling, and we see nothing which approaches to the Iris in its flower. The few green inner petals may be the result of check, cold nights or some deficient element of the soil The tree of which you send flowers might be the Sycamore; but why not give us better material?

Daffodil for naming (*G. Brown*).—The variety is Wm. Wilks and is not often met with now. It is by no means a novelty, and the three-flowered scape in the Daffodil is not uncommon; indeed, a large number of sorts take on this kind of freak in turn and rarely, if ever, repeat it. The foliage is quite of an abnormal character for the variety in question, and another year both this and the flowering may be again quite normal. It is of no commercial value whatever.

Hyacinth not flowering (*Hyacinth*). — There have been a good many complaints about Hyacinths not flowering this year. For some reason they have not ripened properly in Holland, or they have been harvested too soon. Either of these would cause the flower-stalk to behave as yours did. As your bulbs were grown in a window-box, it may be that you have unintentionally allowed the soil to get too dry. This would also cause the spike to become abortive. Perhaps you will be able to remember if this happened or not, and if it did you have in all probability the cause.

TREES AND SHRUBS.

Information about Lilacs (*Hobby*). It is not necessary to graft your Lilac bushes to get them to flower. Perhaps the wood is not strong enough to flower. We advise you to thin out all weak wood and reduce the number of young growths on the main branches. This will allow of all the vigour of the plant being put into the remaining branches, which will result in stronger wood. If you do the work at once, the wood will probably become strong enough to flower next year. The best thing to do with your Rhododendrons is to cut them hard back at once. You can cut them into the hard wood, but they will look very rough until new growths appear to hide the wounds. The ends of the cut branches ought to be turned over to protect the wounds while they are healing.

Name and treatment of a shrub (*A. B.*).—The specimen you send is Pieris (Andromeda) japonica. It thrives in peaty soil or in loam that does not contain lime in any appreciable quantity. Similar culture in every respect to that given to Rhododendrons suits it admirably. Practically no pruning is required save the removal of the flower-heads as soon as the flowers fade, so that seeds will not mature. It is a mistake to give it manure or richly manured soil. A much better practice is to give it a top-dressing of half-rotted leaves in May. This will tend to keep the upper roots about the surface of the soil, which is a very necessary item, and to check excessive evaporation of the moisture in the soil.

THE GREENHOUSE.

Arranging narrow inside borders (*Jerseyman*).—The better way to treat the borders, if you follow out the rockery idea, would be to arrange some false pockets where such flowering plants as Cyclamen, Shortia, Primula sinensis, Cinerarias of sorts, Hyacinths, Daffodils and Tulips could be employed. By growing a number of pot plants of the above, the flowering plants could often be changed and a better effect secured. Pots of Crocus might also be employed, together with Roman Hyacinths, Lily of the Valley and other things. Useful Ferns for the same might include Pteris scaberula and other species, Adiantum Capillus-veneris, A. cuneatum, Asplenium bulbiferum and others. Such a winter-flowering Begonia as Gloire de Lorraine should prove invaluable, and small plants arranged among other things would be very charming. The hardy Selaginellas would be found most useful.

Name and treatment of an Orchid (*Mrs. C.*). The name of the Orchid of which you enclose pseudo-bulbs is Cœlogyne cristata, which in the ordinary course of events should have flowered in January or February. The best time for repotting is early in March; but as your plants certainly need potting, we advise you to do it at once. Deep pans rather than pots are the best receptacles for this Cœlogyne; but if you have only pots available, an extra amount of broken crocks must be placed in the bottom. Even if pans are used the drainage must be ample. A suitable compost is Osmunda fibre or good fibrous peat, with some sphagnum and sharp silver sand well mixed together. In potting especial care is necessary not to bury the rhizomes or pseudo-bulbs too deeply, and if necessary they may be held in position by a peg or two. After potting care must be taken not to over-water, but when growing freely a liberal amount of water must be given and a moist growing atmosphere maintained. At that time a structure with a minimum temperature of 60° will be very suitable for the plants. When growth is completed it may be kept somewhat cooler and drier in order to ripen the pseudo-bulbs. Cœlogyne cristata is one of the commonest and cheapest of Orchids, and we fear that you will find a difficulty in exchanging your plants.

FRUIT GARDEN.

Peach tree leaves perforated (*Perplexed*).—The leaves received are small, thin and lacking in substance, making them an easy prey to any adverse conditions they may be exposed to, and plainly showing that your tree is far from being in a vigorous state of health The leaves are quite free from insect pests, and, as regards the perforation of the leaves, we can only suggest what the cause of this has been by our own experience in the matter. The most frequent cause, we think, is from the application of some fumigating compound in too strong a dose. A spell of hot sunshine bursting on the tree in early morning when the foliage is damp and the house unventilated has been known to cause it. Cheap and bad glass has often been responsible for the same thing, and, incredible as it may seem, many of our best gardeners will have it that plants of Humea elegans growing near the trees will produce the same result. In order to help to improve the health and strength of your tree during summer, we suggest that you remove some of the surface soil, say, to the depth of 3 inches, without exposing the surface roots too much, replacing it with a mixture of good loam, adding to every barrow-load two pecks of horse-manure as prepared fresh for a Mushroom bed, half a gallon of bone-dust and the same of quicklime, applying the mixture over the roots as far as they extend and 4 inches deep, treading it well down. You will find that this new soil will in a very short time be alive with new and very active roots, which should again receive a dressing of 2 inches of similar mixture in a month's time. You will find that this treatment will not only help to swell your crop of fruit to greater perfection, but will also give new vigour to your tree.

Jargonelle Pear tree on a south-west wall not bearing fruit (*C. S.*).—The Jargonelle Pear is distinguished from many other varieties by the fact that it mostly bears fruit on the end of its shoots, and this should be borne in mind at the time of pruning—that is to say, the terminal shoot should not be shortened, or the side shoot spurred back as is usually the case in pruning most Pear trees, but left its whole length, depending on the judicious and free thinning of the branches to prevent overcrowding and to preserve the proper balance of the tree. Growing as your tree does in light soil (the Pear prefers a rather heavy loam), the healthy and fertile development of the fruit-buds would be greatly assisted by a mulch 4 inches deep of rotten manure placed on the surface of the soil as far as the roots extend, with an occasional copious watering of liquid manure during the summer.

MISCELLANEOUS.

Book on French gardening (*T. J. C., Beckenham*).—"The French Garden," by C. D. McKay, price 6d. net, from the *Daily Mail* office, is a good book on the subject and will give you the information you require.

Employment in the Colonies (*Mr. K. Wehrli*). It is difficult to give you the information you require, but you would, perhaps, be able to obtain it from the Swiss Consul, 52, Lexham Gardens, W.; or you may be able to obtain it from the Secretary, Société Française d'Horticulture de Londres, 66, Long Acre, London, W.C. Failing these places, you might write to Mr. James Leighton, nurseryman, Victoria Gardens, King Williamstown, South Africa. The latter gentleman may be able to offer you employment, or be able to put you in the way of obtaining it.

Sample of peat soil (*W. H. W.*).—Your peat sample is by no means a good one for potting purposes, as it partakes more of the nature of bog soil than of peat. Good peat has much fibre in it, and is really a product of decaying vegetation. Your soil, however, might be materially improved for potting purposes were it run through a fairly coarse sieve to remove from it the hard bog soil lumps, as that material is of a binding or plastic nature. What is left of the finer matter is more fibrous. If used in the proportion of one-fourth to one-fourth of leaf-soil, old hot-bed manure, sharp sand and a little bone-meal, the other two-fourths being good pasture or turfy loam, then a compost that would grow bulbs or plants of any description should result. For greenhouse Ferns, Camellias, Azaleas or Rhododendrons the proportion of peat might be one-third.

Using liquid sewage (*E. T. T.*).—Certainly a grave mistake is being made by casting a great quantity of house sewage, say, some fifteen to twenty gallons daily, over a stiff, clayey, retentive soil. Were it a very porous, sandy soil, little harm would be done, as the liquid would quickly percolate away. But with such soil as yours the effect of such constant daily floodings is to cause the soil to become sodden and choked with liquid, so that air cannot penetrate into it and must, therefore, become sour. Cannot you use any of this excessive daily quantity of sewage on shrubs or trees or on grass orchards; indeed, anywhere rather than on garden soil which has to be cropped? By keeping it so wet, no chance is given it to become sweetened and pulverised ready to receive seeds; indeed, we should expect that seeds sown on it would die in the soil rather than grow. In hot, dry weather liquid sewage may be used on growing crops with advantage; but using it now on fallow land, such as yours is, is to do very great harm. Some other way of disposing of it should be provided.

Names of plants.—*B. T. F.*—Prunus Padus (the Bird Cherry).——*Rev. F. Varley.*—Aubrietia deltoides variety.——*Dorset.*—1, Lonicera sempervirens; 2, Narcissus incomparabilis (Butter and Eggs).——*H. G. G.*—Brodiæa uniflora and Coleus Northern Star.——*C. Prentis.*—Probably a species of Dolichos.——*W. Collins.*—Aucuba japonica.——*Mrs. Berwick.*—Narcissus incomparabilis (Butter and Eggs).——*M. A.*—1, Erica lusitanica (codonodes); 2, E. arborea; 3, Cephalotaxus Fortunei; 4, Callistemon salignus; 5, Spiræa arguta; 6, Lotus Berthelettii.——*Braydon.*—1, Cydonia japonica; 2, Euphorbia amygdaloides; 3, Forsythia suspensa; 4, Picea excelsa.——*C. L.*—Rubus spectabilis.——*A. A. G.*—Spiræa prunifolia flore-pleno and Lonicera tatarica.

SOCIETIES.

CROYDON HORTICULTURAL MUTUAL IMPROVEMENT SOCIETY.

THE ninth annual spring flower show in connexion with the Croydon District Horticultural Mutual Improvement Society was held recently. The aim of the society is to foster a love of horticulture among the public, and this is being achieved more and more every year, thanks to the endeavours of the indefatigable secretary, Mr. Harry Boshier, who is ably backed up by an enthusiastic and excellent working committee, consisting of Messrs. W. Bentley, F. Oxtoby, M. E. Mills, A. Edwards, W. Rowson, J. Gregory, D. J. Ricketts and H. B. Wilson. The exhibition on this occasion was quite up to the usual standard, and the hall was visited by large numbers throughout the afternoon and evening. In the private exhibits, Mr. David Nicol of Park Hill Road (gardener, Mr. W. Bentley), had a splendid group composed of Schizanthus and Tobacco Plants with Ferns, Palms, Azaleas and Crinum. Mr. Frank Lloyd of Coombe House (gardener, Mr. M. E. Mills), also had a very fine show of Schizanthus wisetonensis backed up with purple Prunus. Mrs. Matthews of Anerley (gardener, Mr. C. Thrower) staged a magnificent specimen of Azalea, which was much admired. A miscellaneous group composed of Calceolarias and Primulas was shown by Mr. Douglas Young of Strathallan (gardener, Mr. George Sharp). Mr. J. J. Reed of Coombe Lodge (gardener, Mr. F. Oxtoby), the president of the society, staged a fine group of Beauty Stocks with Palms and Ferns. These are quite a new departure, and were much inspected by the visitors. Mr. J. Pascall of Ambleside, Addiscombe (gardener, Mr. A. Edwards), had a miscellaneous group of plants, including Calceolarias, Schizanthus and double Cinerarias. Cineraria stellata, Coleus and Orchids were shown by Mr. Otto Hehner of Woodside House, South Norwood (gardener, Mr. C. Wateridge); while Mr. J. Stringer of Hope Cottage, Sumner Road, showed a splendid collection of Pansies, which deserve special mention, considering the conditions under which they were grown.

In the trade exhibits Mr. Thomas Butcher of George Street (Mr. A. H. Naylor) staged some very fine Tulips, Narcissi, Salvia and Azaleas, backed by some magnificent Palms.

Messrs. J. R. Box of Derby Road, West Croydon, had a good collection of Narcissi and Tulips; while Messrs. J. Cheal and Son of Crawley displayed flowering shrubs and hardy flowers, including Spiræa arguta multiflora.

Mr. W. Harris of North End had a miscellaneous group of cut flowers, including Carnations and Sweet Peas; while Messrs. E. W. and S. Rogers, Croydon, staged a capital set of Tulips, there being sixty varieties.

Messrs. John Peed and Son of West Norwood showed a collection of alpine plants, backed by Clematis, flowering and ornamental shrubs, and also Carnations, Cacti and hardy Primulas.

UNITED HORTICULTURAL BENEFIT AND PROVIDENT SOCIETY.

THE monthly committee meeting of this society was held at the Horticultural Hall, Vincent Square, Westminster, on Monday evening, May 10, Mr. Charles H. Curtis in the chair. Two new members were elected and one nominated. The death certificate of the late Mr. David James Nightingale was produced and a cheque for £45 5s. 5d. (being the amount standing to the late member's credit) was voted. The amount of sick pay for the past month was £65 7s.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

THE LABURNUMS.

IT is doubtful whether any ornamental-flowering tree is more widely cultivated than the common Laburnum, for it is found in most parts of the country, and is popular alike in large and small gardens, while it succeeds in a great variety of soils and under widely diverse conditions, and rarely fails to bear a profusion of flowers during late spring. It is not, therefore, to this plant so much as to its numerous varieties and one or two other species that attention is directed in this article, for there are several first-rate sorts that are grown far less frequently than they ought to be. Commencing with the common Laburnum (L. vulgare), we find that there are a dozen or more varieties. Some of these are unworthy of attention except in full collections, as they may be regarded as monstrosities rather than ornamental garden plants; still, there are several that are well worth noticing. These are Alschingeri, Carlieri, linneanum and semperflorens, all of which are distinguished from the type by the length of their racemes, size of flowers and time of blossoming. Two varieties which differ from the type in habit or foliage are pendulum, with weeping branches, and foliis aureis, with golden leaves. Such varieties as involutum, monstrosum cristatum and quercifolium are peculiar by reason of abnormal growth and contorted foliage. Of more importance than the varieties of L. vulgare, however, we have the Scotch Laburnum (L. alpinum). This, like the common Laburnum, is a European plant, and it is distinguished from the commoner plant by its glossier and larger foliage, its longer racemes and its later flowering season. Under favourable conditions it forms a tree 20 feet to 25 feet high, but is frequently met with as a rather wide-spreading tree under 20 feet in height. It blossoms a fortnight or three weeks later than L. vulgare and the racemes are somewhat longer. Several varieties are known, some of which are remarkable for the length of their racemes. L. alpinum grandiflorum bears racemes 8 inches or 9 inches in length, but this is insignificant compared with the variety known as Latest and Longest. Racemes are frequent on this 12 inches to 15 inches in length, while on vigorous examples racemes 19 inches long have been measured. As the name implies, it blossoms late, and the inflorescences are usually at their best about the end of June or early in July. Other varieties are fragrans, with very fragrant flowers; autumnalis, which often produces some of its flowers late in the year; and hirsutum, with hairy leaves. Several hybrids have originated between the common Laburnum and the one under notice, of which two useful ones are Parksii and Watereri. The former has longer racemes than the latter, but for general purposes the latter is the better plant. It flowers with remarkable freedom, the racemes being about 9 inches in length and the flowers of a very pleasing shade of yellow.

L. caramanicum differs very widely from the other Laburnums and more resembles some of the Cytisuses. It is a native of Asia Minor and has been known under several different names, such as Cytisus caramanicus and Podocytisus caramanicus. It forms a small bush with tiny Cytisus-like leaves. The flowers are yellow and borne during late autumn in large, terminal panicles. Although it will not assume the proportions of a tree, it is worth cultivating for the sake of its late-flowering qualities. Probably the most remarkable Laburnum of all, however, though it cannot be said to be so beautiful as the other Laburnums, is L. Adami, the Purple Laburnum. This has always been of great interest to scientists, on account of its peculiar origin. It has for many years been the practice to graft the purple-flowered Cytisus purpureus on to stocks of Laburnum vulgare. On one occasion when this was done in the nursery of Mr. D. Adam, at Vitry, near Paris, Mr. Adam noticed that the graft had exerted a peculiar influence on the stock, and by the fusion of the blood of the two plants a graft hybrid had resulted, which bore not only different-coloured flowers from either parent, but ordinary yellow Laburnum blossoms and typical shoots, leaves and flowers of Cytisus purpureus. By propagating from that plant a stock was obtained which exhibited the same phenomenon. A good tree in blossom has a very peculiar appearance with racemes of yellow flowers, racemes of purple flowers and patches like miniature Witches' Brooms of Cytisus purpureus with ordinary Cytisus flowers. The peculiarity of the plant is that, although the three kinds of bloom may not be apparent for a few years on young plants, they eventually appear. It occasionally happens, too, that the purple-flowered racemes may be absent, but they reappear after a year or two.

The Laburnums generally are most satisfactory trees to plant, for when once established they give little trouble, always flower well and are exceedingly showy. They are trees that are rather impatient of pruning, especially when large branches are removed, for the wound rarely heal well and decay is frequently started from a large wound. W. D.

[Those who have the opportuuity should visit the Royal Gardens, Kew, where the collection of Laburnums and many other classes are in their ripest beauty. They are interesting not merely from the effect produced, but both the commoner and rarer kinds are represented.—Ed.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

June 8.—Royal Horticultural Society. Exhibition of Flowers, &c., 1 p.m. to 6 p.m. Lecture at 3 p.m. by Rev. Professor G. Henslow, V.M.H., on "Some Old Superstitions about Plants." Admission, 2s. 6d. Royal Horticultural Hall, Vincent Square, Westminster.

Mr. Harry J. Veitch, V.M.H.—Amid the increasing love of plants and gardens, it may possibly be forgotten to what a really vast extent the present and succeeding generations are indebted to Mr. Harry J. Veitch, V.M.H., not only for his invaluable work among plants, but also for the assistance he has invariably rendered, personal as well as financial, to the great gardening charities. A few of his friends and admirers (both amateur and professional) are, therefore, desirous of having his portrait painted by one of our leading artists, in order that it may be hung permanently in the buildings of the Royal Horticultural Society. A sum of 600 guineas will be required. Of this a very substantial sum has already been received, but it is thought that among many of his friends there will exist a feeling that an opportunity to subscribe should also be afforded them. It is proposed, should the funds admit, to present each subscriber of 1 guinea and upwards with an engraving of the portrait. Subscriptions may be sent to either Mr. H. B. May of Stanmore, The Green, Chingford, or to the Rev. W. Wilks, Shirley Vicarage, Croydon.

May Tulips at Long Ditton.—A few days ago the tens of thousands of late or May Tulips, Darwins, Cottage, English and Species, at Messrs. Barr and Sons, Long Ditton, were in magnificent bloom and gave glorious masses of colour. To realise what Tulips are they should be seen in the open and in such quantity. How they waved in the breeze and glowed in the sunlight, how gloriously beautiful they were! Probably hardly any two persons would make from them just the same selections of a dozen or so. To me there is special charm in form, and I looked rather for that broad, rotund petal which is associated with the Tulip's true cup-shaped form. On such ground the following were indeed beautiful: Bouton d'Or, rich yellow; Cyclops, deep scarlet; Feu Ardente, rich deep crimson; Perle Royale, white, picotee edged, reddish purple; Orange King, orange maroon; Inglescombe Pink; Electra, white, shaded lilac; Velvet King, very fine maroon; Psyche, soft shaded lake; Salmon King, Rev. H. Ewbank, and Margaret. Large beds of mixtures were so beautiful as to defy description.—D.

Garden Polyanthuses at Camberley.—Mr. J. Crook, who some time since transferred his field of garden operations from Chard, Somerset, to Camberley, Surrey, has set himself in earnest to extend the culture and improve the stock of the border Polyanthus. It is so important when entering on work of this nature that the requirements of the flower should be well understood, and this Mr. Crook fully does. Merely large flowers that have rough and uneven forms or outlines, have dull-coloured centres and grounds of undefinable hues, do not enthuse him. He sees in the finest of his strains perfect form of petals, stout and well rounded, habs borne evenly and freely on stout, erect stems, eyes or centres clear yellow and well defined, and the ground hues of some very distinctive colour. What beautiful whites, straw yellows, orange yellows, terra-cottas, reds, crimsons, mauves and purples, yet in so many varying shades, does his collection present! One flower has an absolutely new colour in a rich violet hue, which it is hoped may be fixed. I took over the more recent seedlings, those of a year old and just coming into flower, proved to be most interesting, as in these were seen very fine forms or new properties that made one long to see what their progeny in future years might be. To show how well plants thrive in the Camberley sand, some the third year, or really two and a-half years from sowing, had massive heads 15 inches over. That is the way to have Polyanthuses if planted in deeply-worked, retentive soil, where, not shifted, they may with some old pot-soil mulchings be encouraged to do so well. The myriads of plants at Camberley are in blocks of white, yellow, red and crimson, mauve and purple, and terra-cotta or fancy. There are also many thousands in mixed beds. Mr. Crook advises either sowing last year's seed at once thinly in shallow boxes under glass, but shaded, or new seed of the present year in boxes or in a sheltered spot outdoors early in September. Few plants from seed give greater beauty so readily and cheaply and for successive seasons as garden Polyanthuses.

Gift of a park to Sheffield.—The Duke of Norfolk has given to the Corporation of Sheffield the large park which has been opened to the public for some years and which is situated in a busy part of the city. The park is some sixty acres in extent and is reputed to be worth £1,000 per acre.

John Forbes, Hawick, Limited. The well-known and old-established business of John Forbes, nurseryman, Hawick, has been incorporated as a private limited company under the Companies (Consolidation) Act, 1908, under the name of "John Forbes, Hawick, Limited." We understand that the shares are all taken up by Mr. Forbes and his family, and that the incorporation is made for family purposes only. We wish the new company a continuation of the prosperity which has marked the business hitherto and recently secured for it the distinction of Royal patronage.

Flower shows at Birmingham.—The Birmingham Botanical and Horticultural Society has decided to continue the holding of two summer flower shows at the Botanical Gardens, Edgbaston, this season. The forthcoming shows will be held on June 9 (Orchids and early summer flowers) and July 21 (Roses and midsummer flowers). Schedules may be obtained from the hon. secretaries, Messrs. Humphreys and Whitelock.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Artificial manures.—In reply to "K.," whose letter appears in THE GARDEN for May 15, page 239, I did not suggest in my previous letter that Wakeley's Hop Manure contains 50 per cent. moisture. It may contain more or less. My point is that the analysis given by "K." is misleading, inasmuch as it is the analysis of a dried sample and not of the actual manure as sold. Until the percentage of moisture is disclosed it is impossible to judge of the value of the manure. I fail to see any difficulty in giving a correct analysis of the actual manure as required by the Fertiliser and Feeding Stuffs Act. Spent Hops will supply the most expensive ingredient in manures—nitrogen. Both phosphates and potash can be bought cheaply and added to the soil on which spent Hops have been used. Superphosphate four parts and sulphate of potash one part, applied at the rate of 2oz. to 3oz. per square yard, will be sufficient to give equal, if not better, results than that advocated by "K." I have used nothing else for my garden for several years, and the results show that there is nothing absurd in my suggestion.—A USER OF SPENT HOPS.

Modern Daffodils.—Mr. Jacob is certainly right in saying that the Daffodil is becoming a florist's flower, and I also agree with him that there is at present no acknowledged standard of merit, and hope that we may be long without one, in the best interests of this beautiful and subtle flower. I have never in my business experience met with anyone who said, or showed, that they were influenced in purchasing Daffodils by the affixes A.M. or F.C.C. The reasons for this are no doubt many, but it is perhaps partly caused by the fact that a number of flowers, now quite outclassed, possess these awards. The awards will also, in general public opinion, be further depreciated by the fact that, as things stand at present, owing to recent regulations of the Narcissus committee, the highest class of new seedlings are ceasing to make their appearance on the committee's table. Personally, I think this is a good thing, as the public judgment is well able to take care of itself, and that very few people buy a flower because it has been approved of by somebody else. There is a good deal of the right of private judgment at present exercised by Daffodil-lovers, and mere size, when flowers are lacking in form or badly proportioned, does not attract. With regard to registration of names, I think it is fairly obvious that, unless great confusion is to arise, there must be for the convenience of all concerned—raisers of seedlings and traders in bulbs and the public alike—some central register in which a record is kept of appropriated names and new ones which can be consulted and used by everyone. An abuse of the Royal Horticultural Society's register, which is now a derelict, seems rather to call for reform than its abandonment. The abuse complained of can be easily prevented. It has been suggested that the supply of names derived from the English language and foreign ones, and from the heavens above and the earth beneath, will give out before the needs of new seedlings; but this difficulty has not yet arisen, and when it does it will be time enough to meet it. It is unfortunate that the time for the consideration of these and other important points by the Narcissus committee of the Royal Horticultural Society is so limited. The meetings are held on the mornings of the Tuesday shows, when many of the members have flowers on show or other interests in the hall, and there is, consequently, a disposition to burke discussion and hurry things through without adequate consideration.—F. W. CURREY, *The Warren Gardens, Lismore.*

A cure for slugs.—It may interest other readers to know that I have found powdered alum (2d. per pound) an absolute remedy for slugs, which were a great nuisance before I began using it. It is much less trouble to use than soot or lime and does no harm to the plants.—ORANGE.

A gardening society in America and Sweet Corn.—You may recall that last autumn you kindly wrote me regarding the formation of a local horticultural society in our surburban town, and sent me exactly the literature of which I was in need. I am glad now to be able to tell you that we have succeeded in getting something of the sort started, and although it will be uphill work there are a few of us who think it can be made to go. You have, however, no idea how utterly untrained the minds of our probable members are in regard to handling and caring for gardens. Most of them take an interest in flowers after a fashion, but have never had the idea of running a garden in the English sense—that is, a place which would be beautiful and interesting from snow to snow. However, we shall proceed to do the best we can, and perhaps you may be interested to know that one of the first things that was done was to place a copy of THE GARDEN in the public library, where we have arranged to have an alcove set aside for books and periodicals upon the subject. I enclose herewith one of the little announcements which we are getting out, and on some future occasion may have the pleasure of sending you further literature. If by chance any ideas occur to you which you think we could use, I trust you will let us have them, because at the best we find it difficult to arouse and keep up a

ittle enthusiasm on the subject. A short time ago I noticed in The Garden a note in regard to Sweet Corn. The sorts which were mentioned there as available may do well with you. They would do very nicely provided your enquirer wishes to raise the Corn to look at; but if he has any idea of eating the crop, there is only one sort for him to plant, and that is the Golden Bantam, which was introduced a few years ago by Burpee. I am sending you herewith under separate cover a few seeds, a portion of my supply of this variety which I got direct from the introducer this year, and if you care to transmit them to your enquirer, no doubt he will be willing to give them a trial. Other varieties of Corn are much better-looking—this is small, yellow and, as the farmers in the country say, "nubbins" mostly, but the flavour is better than any I know, and I have tried most of them at one time or another. In addition to what you have told your enquirer, you might point out to him that Corn is in Nature a native of the highlands of the tropical countries, and that means it will only grow when the weather is thoroughly warm. While it should have plenty of moisture it must not have too much water standing about its roots, or it is certain to fail to mature; in fact, in the cornfields in this country you can frequently pick out the wet spots, in July or August, by the stunted and yellow appearance of the Corn growing in these places. Contrary to the general idea, I have found no difficulty at all in transplanting young Corn, not only once, but two or three times if necessary, simply using the same precautions that you would in transplanting any other rather tender annual. For this reason Golden Bantam can be started in any convenient warm place and transferred out of doors when the weather is warm enough, so that it will not be stunted. Another point that should be brought out very clearly is that the Corn should be planted in hills or close rows. In theory it is fertilised by the wind, but in practice the direct dropping of the pollen seems to be the only method which gives good results. A single stalk of Corn rarely fills out more than a few grains in an ear. If, in this little *résumé* of the Corn business, I have troubled you with facts which you already know, I trust that you will pardon me on the ground that I was simply anxious to help the enquirer along. With best wishes, thanking you again for your kind interest in the starting of our little society. —F. D. Crane, *New York, U.S.A.* [We thank our correspondent very much for his letter; it is most welcome.—Ed.]

SPRING FLOWERS AT HAMPTON COURT.

THE gardens at Hampton Court are now looking their best. All who have the opportunity, and who can appreciate the wealth of spring flowers on trees, shrubs, herbaceous and bulbous plants to be seen there now, should lose no time in wending their way thither. The Chestnuts are very full of bloom. The Lilac bushes, purple and white, huge specimens loaded with their deliciously scented blossoms, are alone a sight worth going a long way to see. The Old Dutch Garden on the south side of the palace is now at its best, and is full of interest and beauty. The wealth of hardy trees and plants in bloom and the tints of green and gold of the myriads of young growths on the old trees which were seen on a recent afternoon in glorious sunshine was a garden picture of great beauty. Why are Lilacs not more frequently planted in large banks or masses, or even as hedges for effect? Here on one side of the private tennis court, running its whole length, is to be seen a noble bank of this old favourite in full bloom.

The now far-famed long border at the foot of the east wall, and facing the east lawn, as well as the large beds running parallel with the walks, afford at the present moment such rich and varied scenes of brilliant colouring as is scarcely to be seen anywhere else in the kingdom.

To give those who are unable to go to see for themselves, and who would like to reproduce in their own gardens next spring some of the colour arrangements seen to such advantage here, I may mention a few of the plants most commonly used and their disposition in a few of the beds. What is evidently aimed at here in spring bedding is colour massing, with dwarf plants for carpeting the beds, combined with the introduction of taller plants of vivid colouring, not too thickly planted, providing splashes of colour, hovering, as it were, over the beds, but not hiding the effect of the masses of colour provided beneath them. Tulips are *par excellence* the plants to produce these splashes of colour.

The comparatively new double Rock Cress (Arabis albida flore-pleno) is largely used and grown to perfection, also the single variety. Yellow Alyssum is another popular plant; Polyanthuses, red, yellow and white, are in full bloom; and Wallflowers in all the distinct colours are well in evidence. In plant arrangements of this description the Aubrietia is indispensable; so are the Violas in various colours, also Daisies and Pansies. These are all hardy, easily grown plants, and may be propagated freely and cheaply from seeds or cuttings.

The following beds were among the brightest and most striking: (1) The groundwork of this was planted with white Daisy and the purple Aubrietia alternately, now in full bloom and completely covering the surface of the bed. Planted among these about 10 inches apart were the three following Tulips in equal numbers, the colours, I thought, blending most pleasingly together: Murillo (pale rose), Duke of York (red and white), and La Candeur (pure white). (2) Groundwork of Polyanthuses in various shades of gold, splendidly flowered, with Tulips Rose Superba and Rose Beauty, the former being pink and white and the latter scarlet and white. (3) The groundwork of this was completely covered with the double Rock Cress (Arabis), bearing many spikes of snow white flowers, reminding one somewhat of those of the Lily of the Valley. The tall plants provided for this bed were Hyacinth King of the Blues and Tulip Cottage Maid. (4) Carpet of yellow Polyanthuses, with Tulip Rose Rubrorum, colour brilliant scarlet. (5) Yellow Viola was the groundwork of this bed, the tall plants being Narcissus Barri conspicuus, a very pleasing combination. (6) Groundwork of dark Wallflowers (Ruby Gem), with tall plants of Tulip Keizerskroon and a rich yellow May Tulip. (7) Dwarf yellow Wallflowers, with tall plants of Tulip Prince of Austria, colour rich orange red, and Tulip fulgens, a tall crimson variety. (8) Groundwork of red Polyanthuses, with Tulip Ophir (yellow) and Pottebakker White.

These beds are large (mostly about 27 feet by 15 feet) and not very far apart in a straight line, and if it were not that they are placed on a large expanse of lawn by the side of a gravel walk of enormous width and not far from some avenues of very old Yew trees, to say nothing that the east, the most imposing front of the palace itself, looks down upon them, it might be objected that there was too much colour. The associations mentioned tone down and neutralise any such feature. Where all is so spacious and stately, anything puny would be out of place. O. T.

ROSES AND AURICULAS AT SLOUGH.

AS the nursery from whence the famous Rose Turner's Crimson Rambler was introduced to growers in this country, the extensive glass and land area devoted to horticulture by Mr. Charles Turner at Slough will long be famous, and it was with the object of seeing some good things in the horticultural line that we journeyed thither on a recent afternoon.

CLIMBING ROSES IN MR. CHARLES TURNER'S NURSERIES AT SLOUGH.

Although early for Roses generally, there were many in flower under glass, while the stock of those in pots outdoors, suitable for planting out now for filling up gaps in beds or other conspicuous places, was a very extensive and healthy one. Among those flowering at the time of our visit, Crimson Rambler naturally occupied a prominent position and was romping away in the vigorous manner so characteristic of the variety. Then there was Stella, a charming pink single of the multiflora section, each flower having a nearly white eye. Trier was another belonging to the same section that was in splendid form, the beautiful semi-double flowers being produced in large clusters and possessing that delightful fragrance without which a Rose loses half its charm. In addition, there were Hiawatha and many other well-known sorts, besides plants innumerable that possessed such a quantity of flower-buds that it required not a very strong imagination to picture what pillars of bloom they would become in a week or two's time.

One point that charmed us about this nursery was the blending of old-time horticulture with the most up-to-date methods. Thus, climbing over Mr. Turner's house at the entrance to the nursery is a magnificent old Wistaria, whose gnarled and twisted stem measures some 18 inches in diameter, the blue of the flowers just

showing through their silken sheaths. This plant alone is worth travelling far to see. Then again, this is one of the few nurseries where the Auricula, so beloved of our forefathers, is grown to any extent. Mr. Turner has something like 5,000 plants of this charming flower, both show and alpine varieties being represented, all the plants being in perfect health. What a delightful fragrance assailed our senses on entering the cool house, wherein these were accommodated, a fragrance reminiscent of happy days spent in the Primrose and Oxlip woods of remote Essex corners. Among the show varieties with green edges were such well-known sorts as Mrs. Henwood and the Rev. F. D. Horner, grey-edged sorts being represented by such as Richard Headley, General Neil, Stapleford Hero, Beauty and Heather Bell, a couple of lovely selfs being Ruby and Evelyn Richardson. Of alpines Mr. Turner has devoted considerable attention to raising new seedlings, and among a large batch of these we noticed several very fine and quite unique sorts, the colours being different from any we already possess.

The beautiful Ivy-leaved Pelargonium named Charles Turner is so well known that all who like it will be glad to know that the firm has a splendid seedling from it named Mrs. Hawley. This is a remarkably robust variety with large leaves and full flowers of a richer hue than its prototype. Another novelty that we were much charmed with was a white seedling greenhouse Rhododendron, the large, pure white flowers possessing a most delightful fragrance.

Other good things noted were a splendid strain of Primula Sieboldii varieties, seedling Roses a few inches high, Pelargonium Lady Decies, a beautiful large-flowered blush pink variety, whose freedom of flowering should render it valuable for market purposes; Caladiums of all sizes and brilliant colours; and a seldom-met-with shrub named Ochna multiflora, whose several features should make it valuable for the greenhouse. First come its bright green leaves, then yellow flowers, the calyx of which is scarlet and persistent. When the flowers fall, green berries quickly form, and these eventually turn black, so that when thrown up as they are against the scarlet of the calyx a most telling picture is produced. All who like out-of-the-way and ornamental plants should grow this. Carnations, again, are grown extensively, Perpetual-flowering, Malmaison and border varieties all being dealt with in thorough style. Standard Heliotropes, Plumbagos, Fuchsias and large Ivy-leaved Pelargoniums for bedding purposes occupied a large amount of space, the plants all being of a well-hardened and healthy character.

In the outdoor department we found trees and shrubs of all sorts and also hardy plants cultivated on a large scale. Lilacs, Berberises, Ivies, Maples, Prunuses, Pyrus and hosts of others were to be seen, lack of space preventing us going into the details of these. A fine stock of young plants of Magnolia grandiflora were of more than usual interest, and Mr. Turner informed us that a large quantity is propagated every year. Among other hardy plants were double Calthas, one of especial merit being C. palustris montrosa plena, which has large leaves and a spreading habit, the beautiful double flowers being of a citron yellow hue. Another very effective plant was Euphorbia polychroma, the rich yellow inflorescences of which are borne on 1-foot-high stems and make a most effective display. Saxifrages of all sorts were flowering very freely, and Iberis sempervivens Snowflake is a particularly pure white variety of the perennial Candytuft, beside which the type looks very dirty indeed.

SEA-SAND AND ITS USES.

Our sea-walled garden, the whole land.—"RICHARD II."

A SEA-WALLED garden—this is how Shakespeare describes our islands, and so many English people live near the sea and will have gardens by it, no matter how great the difficulties they encounter, that a few words about sea-sand and how to use it may not come amiss.

Sea-sand is generally plentiful in sea-side places, but it is not made nearly so much use of as it might be; our gardeners are often sent long distances away to get the sand that is so indispensable for their greenhouses and cuttings, while any quantity of sea-sand could be procured by them without expense and with very little trouble. Experience has taught us not to despise the common sea-sand of the shore. We find it serviceable in the garden, in the greenhouse and indoors.

THE NEW SAXIFRAGA CLIBRANII. (*Natural size.*)
(*See page 266.*)

Quite true, it is not wise to take raw sand straight from the beach and expect to make use of it immediately. This would contain far too much saline matter for safety; but the same sand, after it has been kept some time in heaps and exposed to the elements, dried and wetted, and dried again very likely, can be made use of in many ways. It is particularly good to mix with leaf-mould in potting Geraniums, and there are other plants which respond to it at once. Among them we might mention Carnations—a fact which will surprise no one who has seen how luxuriantly these flowers bloom close to the edges of the Mediterranean, where they have little else to grow in but sand between the slabs of rock. There is no need to trouble about washing sea-sand before using it. Nature will do the work admirably for us if we give her time.

As to the garden use of sea-sand, common sense is our best guide. It depends upon the nature of the soil whether the addition of any sand whatever is to be desired. Sea-sand wants careful using. There is, of course, a good deal of salt in it, and salt, like many other good things, is both a poison and a medicine. Rough salt is used to kill the weeds that grow between the flints of the stable-yard, and there is nothing like it for destroying Nettles, root and branch; but in autumn the same thing will be sprinkled on the surface of the Asparagus beds as a stimulant, and a great deal of good it does them.

In some form or another salt is often welcome in the kitchen garden. Naturally so. A large number of our most useful vegetables are found growing in a wild state close to the sea. Such plants might be expected to like what we may call sea-coast foods, whether they are offered in the shape of refuse from the herring fishery, of sea-weeds, or of sea-sand with whatever virtue may be in it. With plants whose origin is clearly marine, there is the same satisfaction in giving them a taste of their native aliment as there is in giving a fresh green turf to a captive thrush or tufts of Groundsel to a goldfinch. Response is made in the same way to benefits bestowed. Plants that are made happy with food they like have a very practical way of evincing gratitude, and do so in a manner that human beings might well copy.

Gardeners have forgotten it, perhaps, but wild-flower-lovers will easily recall the number of plants now cultivated as vegetables that may be met with in any summer ramble on the sea-coast. Salt marshes are the natural home of Asparagus; Celery (Apium graveolens) is not uncommon in moist and sandy places by the sea-shore; Fennel (Fœniculum vulgare) is a native of our chalky cliffs; and Samphire, at one time such a popular pickle, inhabits rocks just above the reach of waves. The Sea-beet (Beta maritima) is said to be the origin of our cultivated Beet, and is easily recognised by its resemblance to the vegetable so common in our gardens. The root-leaves of the wild Beet when boiled are nearly as good as Spinach. A kind of wild Carrot (Daucus maritimus) grows on the coast of Cornwall, and Crambe maritima is no other than the much-prized Seakale, whose clustering heads of brilliant white flowers are so pretty, and whose leaf-stalks when blanched make such capital eating. All these plants may be found on an August ramble by the sea, but it is in June we had better look for the wild Sea-cabbage (Brassica oleracea). When found, please make a note of this, for it is the reputed parent of the entire Cabbage family, such as Broccoli, Cauliflower, Brussels Sprouts, &c. A fine thing the Cabbage! Our old botanists considered it to be a cure for nearly all the ills that flesh is heir to, and the Ancient Greeks were much of the same opinion.

Sea-sand indoors is delightful when arranging cut flowers for the table or dwelling-rooms. It should be just moist enough to support the stems securely, and is much pleasanter to use than wire holders because it is so hygienic and preservative. Last Christmas a dozen or so of Tulips sent from the florist with the bulbs attached were placed in a bowl filled with fresh sea-sand; they remained in perfection for many weeks. Identically the same Tulips put in either wet moss or damp earth faded off in half the time. Children in "Poppy-land" playing on the sands often amuse themselves by making little gardens in it.

FRANCES A. BARDSWELL.

THE ROSE GARDEN.

SOME EARLY JUNE ROSES.

ALREADY the swelling buds upon an improved plant of Conrad F. Meyer growing against the east wall of my house proclaims the advent of the Rose season, and, given some warm weather with refreshing showers, we may expect a rich display shortly. To many individuals the first Snowdrop gives unbounded pleasure as it peers forth so shyly beneath the leafless trees; but to the true rosarian he looks forward longingly to the first little bud upon the hedge of Scotch Roses, or maybe a large bush of that delightful single glorified Scotch Rose named Altaica.

How pretty the Scotch Roses are with their dense round bushes covered with the tiny little double and single blooms, mostly of a pink shade; but some are blush, a few rosy red and several white! There is also a beautiful yellow form known as Williams's Yellow Briar. I have read of a lovely variety known in Scotland as The Tartan, but am not acquainted with it. The Scotch Roses are easily propagated. They send out lots of running shoots, which spring up all around the bush, and one may soon obtain hundreds of plants from these. They are excellent for growing under the shade of trees. Some of the singles are particularly beautiful, one especially, the single red. With the Scotch Roses we have blooming several interesting species, but these are more favoured by the botanist than the general public. To those, however, who would desire to know them I would recommend a journey to Kew Gardens, where one may spend an afternoon of real enjoyment hunting out these lovely, if simple, Roses.

Opening close upon the Scotch Roses we have the Briars of various sorts, the Hybrids raised by Lord Penzance, with their wide range of colour, delightfully fragrant in leaf and also in bloom; then there is Mr. George Paul's exquisite variety Una, which is worthy of being planted as a hedge, so beautiful are its creamy white blooms, obtained by crossing the Dog Rose with that old favourite Tea Gloire de Dijon, if I mistake not. Some real yellows are found among these Briar Roses, notably, Austrian Yellow, Persian Yellow and Harrisonii, and a rare bit of coppery red and yellow in the ancient Copper Austrian, which is known also as Punicea.

The old-fashioned Gallica Roses are now showing bud; so also are the varieties of Rosa damascena and R. alba. A few of these should be grown whenever possible, for they give a sort of old-world appearance to the rosery, and they, too, are deliciously sweet. How their very names carry our memories back to olden times! I think there is much in a name, in spite of Shakespeare's dictum. These old names were much more euphonious than many of the long German titles and English, too, of the present day. All these Roses propagate so readily from layers that, given one plant, the borders may soon possess plenty. This may also be said of the old Moss Roses, which are much more easy to cultivate when on their own roots than when budded. There are far too many sorts, but one cannot omit the common Pink, unless it be to plant Gracilis, which blooms more freely, or the Crested or the lovely white Blanche Moreau and the pretty miniature Little Gem.

Arches and pillars will soon be aglow with some of the beautiful wichuraiana Roses. To see them growing, even before a bloom is out, is a pleasing sight. Their glistening foliage, so varied in hue, is very beautiful. Some of the earliest are Jersey Beauty, Joseph Billiard, Gardenia, Ruby Queen, Réné André, alba rubifolia, Alberic Barbier, Auguste Barbier, François Foucard, François Guillot, François Poisson, Gerbe Rose (which is so sweetly fragrant), J. Guichard and Robert Craig. Then from the multiflora section we have Waltham Bride, Leuchtstern, Electra, Aglaia, Euphrosyne, Thalia and the pretty Thunbergii. The Hybrid Chinese give us their quota in Carmine Pillar (most glorious of single Roses), Fulgens (a brilliant old sort) and the snow white Mme. Plantier. Bourbon Roses are represented in Robusta, a grand colour, as rich as Louis van Houtte; but it is doubtful whether this Rose is really a Bourbon, for it does not flower in autumn, when the Bourbons are at their best. It is, however, a fine Rose for early flowering. The lovely old Gloire des Rosomanes is showing its intense colouring, and will continue so all through the season, while our gracious Queen's favourite Rose Armosa is providing us with its lovely shaped pink blooms in profusion.

These, then, are some of the early Roses one may have in the garden. There are others, and I would refer planters to the charming dwarf Polyantha Roses and also the Monthly or Chinese, for in these two groups there is sufficient variety to make a beautiful group of early Roses. P.

"THE SCENTLESS AND THE SCENTED ROSE."

IN the instructive and useful "Rose Annual" for 1909, a publication of the National Rose Society, an article written by Mr. C. Williamson is published on "The Scentless and the Scented Rose," which it is a pleasure to reproduce: It is strange that in the many Rose catalogues issued, little or no mention is made of the most delightful of all attributes of the Rose—fragrance. The varied hues of the Queen of Flowers are described in most poetic language, but "the potent witchery of smell," as Whittier puts it, is treated as superfluous. Alas! there are many beautiful Roses which lack this "subtle power of perfume" to make them perfect. The most striking example is that grand Rose Frau Karl Druschki, which, beautiful as a masterpiece in snow white marble, yet possessing no fragrance, is like beauty without soul.

Nearly everyone has a slightly different appreciation of Rose perfume. Some have the power of finding odours in the more delicately scented Teas resembling various fruits—Raspberry, Apricot and Peach for instance—but it is in the Hybrids and Hybrid Teas that the true Rose scent is so markedly found; and with what impatience each year the lover of Roses awaits "the first to cast its sweets upon the summer." Of the Roses which have little or no scent I may include, in addition to Frau Karl Druschki, Baroness Rothschild, Merveille de Lyon, Her Majesty, Mildred Grant, Mrs. Theodore Roosevelt, Crimson Rambler, Mrs. Cutbush and Maman Levavasseur.

To name the most highly scented of all Roses is no easy matter, but undoubtedly the following Hybrid Perpetuals stand in a class by themselves: Etienne Levet, Marie Baumann, Sénateur Vaisse and Commandant Felix Faure. Then follow Chas. Lefebvre, Général Jacqueminot, Ben Cant, Dupuy Jamain, Captain Hayward, Mme. Gabriel Luizet, A. K. Williams, Louis van Houtte, Horace Vernet, Prince Camille de Rohan, Victor Hugo, Ulrich Brunner, Alfred Colomb, Hugh Dickson, Helen Keller, S. M. Rodocanachi and Mrs. John Laing.

Among the Hybrid Teas I would select: Mrs. David Jardine, Mamie, Marquise Litta, Augustine Guinoisseau, Mme. Abel Chatenay, Cherry Ripe, Cheshunt Hybrid, La France, La France '89, Daisy, Gladys Harkness, Johanna Sebus, Richmond, General McArthur, Mme. Jules Grolez, Souv. de Maria de Zayas, Dr. O'Donel Browne, Mrs. Stewart Clark, Avoca, Gustave Grunerwald, Lyon Rose and Lady Helen Vincent. Then there are two Roses quite different from the above but quite delicious in their way: Zéphirine Drouhin (Hybrid Bourbon) and Princess Bonnie (Hybrid Tea), to which may be added the best of the Scotch Roses, Stanwell Perpetual, as fragrant as it is beautiful.

For the Tea scents, first by a long way is Maréchal Niel; then Catherine Mermet and its two sports, Bridesmaid and Muriel Grahame, Socrates, Mrs. Edward Mawley, Sunset, E. V. Hermanos, Meta and Molly Sharman Crawford.

Finally I must mention the following Roses, each of which has a fragrance somewhat elusive, but quite typical in each case: La Tosca, La Marque, Goubalt, Camoëns, Mme. Alfred Carrière, Souvenir de la Malmaison and Pink Roamer.

THE RARE SCILLA LILIO-HYACINTHUS ALBUS IN A SCOTTISH GARDEN. (See page 266.)

THE FRUIT GARDEN.

FRUIT NOTES.

RASPBERRIES.—There are few fruits which call for more incessant attention during the early months of the summer than Raspberries, and there is none which gives a more generous or more highly appreciated return. It is the custom of many people to allow all the sucker growths which spring from the stools to remain in position right through the season; but it is an obvious error, for they have no permanent value and are constantly taking food from the bearing canes and those which will have to crop in the following year. One would not, of course, go so far as to advocate the limitation in numbers to the five or six which remain for fruiting, but to keep all is most unwise. For example, those which come through the surface some feet from the row will certainly never be wanted, and the quicker they are pulled up the better; the same may be said for many of those which are quite close in. Beyond this it is most necessary that all weeds shall be kept in subjection; just as they rob the plants in the flower garden of food, so do they take nutrient matter from the fruit, and Raspberries cannot tolerate any interference in that direction. Having removed superfluous suckers and cleared away every weed, the grower should lightly loosen the surface—deep stirring will result in serious injury to the roots, which are just beneath the surface—apply a good mulching of manure, and leave the weather to carry its virtues into the ground.

BIG-BUD IN BLACK CURRANTS.—If the infallible cure for this dreaded pest has really been discovered, as has been asserted more than once, it is perfectly obvious that all growers have not taken advantage of it, for it is doubtful if as many evidences of the presence of the mite in the plants have ever been seen in any previous year as have been apparent this season. It really seems that there is now scarcely a garden that is free from the enemy, and the amateur is becoming more and more disappointed with the results which he achieves. Incessant hand-picking and burning of every abnormal bud is tedious, helps to keep idle fingers out of mischief and does an immense amount of good; but one wishes that a reliable remedy which could easily be applied could be found. As a close observer and a thoroughly practical grower it would not be easy to find the superior of Mr. Alfred H. Pearson of Nottingham, and his advice on any subject appertaining to the culture of fruit is always worthy of the most careful consideration. On more than one occasion he has stated that he has found very great benefit follow upon the use of a soft soap and quassia solution applied through a sprayer during May and June. Mr. Pearson's formula is 4oz. of quassia and 2oz. of soft soap to each gallon of water, and he recommends spraying at intervals of ten days. No one can take exception to the wash as difficult to compound, expensive to procure or offensive to apply, and therefore all readers of THE GARDEN who suffer from the infestation should give the dressing a thorough trial. Mr. Pearson has proved that perfect cleanliness may be confidently expected after applications have extended over two seasons. It may be added that Mr. Pearson watches for and removes any big buds that are seen, and to ensure the absolute destruction of them and their contents takes them to the fire.

MULCHING STRAWBERRIES.—The mulching of Strawberries in such a manner and with such a material that the swelling fruits will be kept perfectly clean is a most important detail of management. Early in the spring the use of long, stained straw is recommended, as food is conveyed to the plants and sufficient time is allowed for the straw to become quite clean before the fruits will rest upon it. But it is not always convenient to do this, and when the present date is reached it is preferable to rely upon new, clean straw packed well up to the plants on each side of the row, but not covering the crowns. This, however, should never be placed in position until the bed has been hoed to remove all weeds and the surface soil has been left in as dusty a condition as possible.

FRUIT-GROWER.

A CLUMP OF ROBINSON'S WOOD ANEMONE (A. NEMOROSA ROBINSONIANA).

THE FLOWER GARDEN.

ANEMONE NEMOROSA ROBINSONIANA.

THERE are few more beautiful plants among the Windflowers than the varieties of our native Wood Anemone (A. nemorosa), which is more varied in its colours and forms than many understand. Very beautiful in the garden are its varieties, some of which, such as A. n. bractaeta, the Jack-in-the-Green of Windflowers, or A. n. flore-pleno, the double variety, interest and please all who see them.

Even more fascinating are the coloured varieties, giving shades of rose, purple and blue. These are now more numerous than of yore, but one of the most appreciated of all is the lovely A. n. robinsoniana, whose opal-like flowers in a group or a mass are of the highest beauty indeed. I call it "opal-like," but it is difficult to give its colouring its proper description, although some say it is soft pale blue and others call it almost lavender. At any rate, it is fascinating in the extreme, while the form and the poise of the blooms on the plant render it one of the most perfect of all the varieties of the Wood Anemone. It came, I believe, originally from Ireland, and was espied in the Oxford Botanic Gardens by Mr. W. Robinson and brought into notice by him.

There is no difficulty in cultivating A. robinsoniana, which, by the way, is not so much inclined to ramble at the roots as some of the forms of the Wood Anemone. It is never out of place, as it is lovely for the rock garden, the border of hardy flowers, the wild garden or the mixed border. It loves a soil of loam and leaf-soil with a little sand in it, and there it grows with comparative freedom, although not particular in its requirements, flowering well in either full sun or partial shade, such as it has in its native haunts. If plants can be secured in pots, they may be planted at any time; but autumn is generally the most suitable season for planting purposes when the Anemones are not in pots. The tubers should be planted about 1 inch deep.

Dumfries. S. ARNOTT.

SAXIFRAGA CLIBRANII.

As will be seen by the illustration on page 264, this Saxifrage has large flowers of good shape, the colour being a pleasing shade of red. It belongs to the extensive mossy section, and as it is very free flowering may be looked upon as a most welcome acquisition. It was shown by Messrs. Clibrans of Altrincham, Manchester, before the Royal Horticultural Society on the 4th inst., when it received an award of merit.

CHIONODOXA LUCILIÆ ALBA.

THE white variety of the lovely Chionodoxa Luciliæ, not yet surpassed in beauty by any of its allies, is a charming thing indeed in the garden in spring, and a potful when in bloom is one of the prettiest things one can have in the window or in the conservatory. It is as yet far from plentiful, and seedlings do not always come true to colour, many giving blue flowers, so that it is not cheap enough to plant by the hundred in the garden. It is so lovely, however, that those who can should remember when autumn comes round to purchase some bulbs of this beautiful Glory of the Snow. S. ARNOTT.

SCILLA LILIO-HYACINTHUS ALBUS.

A VERY old plant in gardens, but for years little cultivated, the Lily-leaved Scilla is likely once more to come into its own again, and more and more people appear to be coming to the conclusion that they will have room in their gardens for this pleasing plant. It is a native of the

THE TEMPLE SHOW.

THE exhibition held in the Temple Gardens this year was one of the most beautiful we have ever seen, but unfortunately lacking in extra good novelties, excepting for a few beautiful Roses, which we shall mention next week. The first day the show was drenched with rain, which was welcomed by farmers and gardeners, but not by those who wished to see the exhibition under the best conditions. All praise must be given to those who have helped in making this show such a success, especially the Council, Mr. S. T. Wright, Mr. Frank Reader and, of course, above all, to the president, Sir Trevor Lawrence, and the Rev. W. Wilks.

ROSES.

Messrs. Cutbush arranged, in conjunction with Carnations, a beautiful group of Roses. Large and attractive specimens flanked the back of the tent, and other dwarf forms made a charming carpeting. Notable among other free-flowering Roses were Hiawatha, Lady Gay, Mrs. F. W. Flight, White Dorothy and Crimson Rambler; altogether a beautiful array.

Roses from Messrs. William Paul and Son, Waltham Cross, were beautifully shown in a charmingly disposed group. Ramblers in variety formed an excellent background, and the foreground was well set out with specimen Roses in variety. The plants were freely flowered and the blooms were large and full. A new rambler from this firm is Fairy, a charming white single Rose.

Slough was well represented by the fine exhibit from Mr. Charles Turner, who has shown without intermission for years. Standard specimens of Mme. Norbert Levavasseur were distinctly charming and freely flowered. Hiawatha and Lady Gay were also shown. Of the exhibition Roses, Mme. Jules Gravereaux, White Maman Cochet, Souvenir de Pierre Notting and J. B. Clark were shown. This was a most interesting exhibit.

Mr. George Prince, Oxford, staged a group of Roses in the large tent, and included in the display were many beautiful specimen ramblers. Hiawatha was in good condition, and Lady Gay, Dorothy Perkins, Blush Rambler, Minnehaha, Delight and many others were all charmingly represented.

Rambler Roses were wonderfully well shown by Messrs. H. Cannell and Sons, Swanley, Kent. A most notable feature in this glorious display was the new American Pillar Rose. The large and attractive rich rose pink blooms are produced in immense clusters, the white centre of the blooms adding to their attractiveness.

Messrs. Paul and Son, The Old Nurseries, Cheshunt, occupied their usual space in one corner of the large tent with a very beautiful and striking group of Roses in many types. Rambler Roses were finely shown, weeping standards standing out conspicuously. Hiawatha, Dorothy Perkins, White Dorothy, Lady Godiva and the new Rambler Buttercup were all charmingly displayed.

A new Polyantha Rose named Jessie was exhibited by Messrs. H. Merryweather and Sons, Limited, Southwell, Notts. This is a glowing crimson, dwarf little plant, freely flowered and attractive, and should be in much demand.

Messrs. Alex. Dickson and Sons, Belfast and Dublin, had a pretty table group of their new Roses, and several were of very considerable promise. Lady Ursula, Walter Speed, May Kenyon Slaney, W. E. Lippiatt, Florence Edith Coulthwaite, Mrs. David Jardine, Margaret Molyneux and others were distinctly pretty.

A large and interesting group of Roses was exhibited on one of the centre tables, and embraced rambler and other forms of this subject, as well as seven large boxes of superb exhibition Roses. This striking exhibit came from Messrs. B. R. Cant, Colchester, and was much admired.

A most attractive group of several types of the better Roses came from Mr. Frank Cant, Colchester. Delight and Hiawatha, Dorothy Perkins (a beautiful weeping form), Minnehaha and Tausendschön were really charming. The yellow Persian Briar was distinctly pretty, as was also the Austrian Briar.

One of the most beautiful exhibits of Roses in the show was that put up by Mr. George Mount of Canterbury. His effective method of staging huge mounds of one variety is very commendable, Any of the flowers were good enough for the exhibition stand. Mrs. John Laing, Frau Karl Druschki, Richmond, Joseph Lowe and Ulrich Brunner were excellent.

Messrs. Hobbies, Limited, Dereham, grouped Roses in very charming fashion, standard Ramblers and Ramblers in natural form, besides numerous other types of Roses, being set up in a very pretty group. Hiawatha, Paradise, the new Coquina, White Dorothy and others were grouped artistically, and were the admiration of crowds of visitors.

CARNATIONS.

Messrs. W. Cutbush and Sons, Highgate and Barnet, made a most attractive display of Carnations in their large group at one corner of the big tent. Mounds of neatly disposed plants were contrasted in pleasing fashion, and included such sorts as King Arthur, Lady Coventry, the new pink Malmaison Marmion, Mercia, Lord Rosebery and Robert Craig.

A grand bank of well-grown flowers was staged by Mr. C. Engelmann, Saffron Walden. This exhibit was most artistically disposed, fronds of Asparagus being charmingly interwoven, giving a very delightful effect.

One of the best groups of Carnations came from Mr. W. H. Page, Tangley Nurseries, Hampton. Large vases of handsome flowers were beautifully arranged and the flowers were superb. Winsor, Beacon, White Lawson, Enchantress, Britannia and Governor Roosevelt were all remarkable for their good colour.

Mr. Hayward Mathias staged an interesting series of flowers of good quality. Britannia, Gwladys, Rose Enchantress, Cecilia, Harlowarden and Lord Welby were some of the best in a charming selection.

Superbly fine was the exhibit from Mr. H. Burnett, Guernsey. The flowers were of the highest quality, colour, size and form being all that could be desired.

Messrs. Bell and Sheldon, Guernsey, made a very handsome exhibit of Carnations. The flowers were richly coloured, of large size, and were tastefully displayed.

A pretty little exhibit of Carnations came from Messrs. Thomas S. Ware ('02), set up in pleasing fashion in Bamboo stands and stately vases and fronted with foliage plants. Fair Maid, Mrs. T. W. Lawson and Britannia were good sorts.

Mr. S. Mortimer, Rowledge, Farnham, Surrey, set up a pretty group of Carnations, arranged in pleasing fashion in stately clear glasses. Britannia, Winsor, Robert Craig, Enchantress and Lady Bountiful were all good.

Mr. C. F. Waters, Balcombe, Sussex, again excelled with his Carnations. Mrs. H. Burnett, Harry Fenn, Princess of Wales, Marmion, Victory, Winsor, Fair Maid and others were well shown.

A dainty group of Carnations was exhibited by His Grace the Duke of Northumberland, Winsor, Beacon, Robert Craig, Britannia and Enchantress being the more noteworthy specimens. The plants were well grown, and looked very pretty set in a groundwork of some of the better Nephrolepis.

A pretty exhibit of these flowers came from Messrs. R. H. Bath and Co., Wisbech. The flowers were set up in vases and were arranged effectively. Good examples of Beacon, Winsor, Fair Maid, White Lawson, Aristocrat, Tokio, Mrs. T. W. Lawson and Robert Craig were most conspicuous.

Very handsome indeed was the group of Carnations set up by the American Nursery, Sawbridgeworth, Herts. Vases and Bamboo stands were used to display the well-grown flowers.

Mr. James Green, March, showed well. He used Bamboo stands for his flowers most effectively. Enchantress, Mrs. Burnett, Winsor and Variegated Lawson were attractive.

A superb little group of the better Carnations was set up by Messrs. Hugh Low and Co., Enfield. Hanging baskets, unique vases, stately and otherwise, displayed beautiful flowers most artistically. Princess of Wales, Winsor, King Arthur, Black Chief, Britannia and Afterglow were among the more noteworthy.

Progress, the new perpetual-flowering Carnation, was shown by Mr. C. H. Herbert, Birmingham. This is deliciously fragrant, and is wondrously free-flowering. The colour is rosy mauve.

A large exhibit of the new Carnation Rose Doré was attractive. The colour is a sparkling rose, and it appears to be a good doer. This came from Mr. W. H. Lancashire, Guernsey.

A very fine lot of Carnations came from Mr. A. F. Dutton, Bexley Heath. The blooms were large, full and of beautiful form, and the colours were also good. Fair Maid, White Enchantress, Winsor, Enchantress, Mrs. T. W. Lawson, Rose Pink Enchantress and Britannia were all good.

ORCHIDS.

Messrs. Stanley and Co., Southgate, N., had a very pretty little group, in which was the splendid pure white Lælia purpurata Queen Alexandra, with three large flowers, and forming a very fine plant; this is a very rare form of this species and is the most valuable of albinos. In addition we noticed a fine lot of Cattleya Mossiæ hybrids, C. Lady Dainty, C. M. Sunset, C. M. Sunrise, C. M. Wagnerii and C. M. reineckiana splendens, a grand plant carrying eight good flowers in a 6-inch pot.

From Messrs. Cypher and Sons of Cheltenham came a most interesting group arranged in their usual high-class style. Miltonias were superb, and the many Cattleyas, Lælio-Cattleyas, Odontoglossum hybrids and others all added their quota of beauty. Among others of special interest were fine specimens of Dendrobium dalhousieanum luteum, some very fine Brasso-Cattleyas, such as digbyanum Mossiæ, d. Mendelii, d. Trianæ, d. gigas and d. Schröderæ; Cattleya Dusselldorfii, with pure white flowers, and a fine set of Cattleya Mossiæ.

Messrs. Charlesworth and Co., Hayward's Heath, Sussex, staged a large and very attractive group of admirably grown plants, the whole forming a large floral bank of great beauty. At

the back were arranged masses of Odontoglossum hybrids of high merit, groups of Lælio-Cattleyas and various others, while in the front were displayed numerous rare plants. A large specimen of Cattleya Skinneri formed a very conspicuous feature. A new Oncidium named Charlesworthii (a natural hybrid of chestnut brown and yellow colouring) and Lælio-Cattleya Eurylochus (a very bright and distinct hybrid), were some of the more interesting subjects to be seen in this very good group.

F. Menteith Ogilvie, The Shrubbery, Oxford (gardener, Mr. Balmforth), had a remarkably fine group, this being most tastefully arranged in a solid bank. Two fine masses of green-flowered Cypripediums were represented by C. lawrenceanum hyeanum, C. Marjorie and C. callosum Sanderæ.

Messrs. William Bull and Sons, King's Road, Chelsea, brought a very nice group of well-flowered plants, these all being in a most healthy condition.

Messrs. Sander and Sons, St. Albans, had a remarkably fine group arranged in a series of promontories and bays, the effect being a most pleasing one. A large mass of Oncidiums made a central feature, some very fine Lælio-Cattleyas being well arranged beneath. In the bays were numerous choice Odontoglossums, Cypripediums, Miltonias and many other kinds, the whole forming a group of unsurpassing beauty and interest.

The group from Messrs. Armstrong and Brown, Tunbridge Wells, was of a highly ornamental character, this again being formed in a sort of series of bays and recesses, beautiful plants ensconcing themselves among Ferns and moss in a very natural-like manner, the whole being of the highest quality. Odontoglossum hybrids, Cattleyas, Cypripediums, Sophronitis, Brasso-Cattleyas and many others all added their quota of beauty to the group.

Messrs. Hugh Low and Co. of Enfield put up a good group of well-grown plants, this containing many that were of more than usual interest. A few that specially appealed to us were a very fine set of Cattleya Mendelii varieties, these being of a large colour range and most pleasing in every way.

M. Charles Vuylsteke, Loochristi, Belgium, staged half-a-dozen very fine Odontoglossums, these being very beautifully and heavily marked, the flowers attracting considerable attention.

Mr. J. Robson, Bowdon Nurseries, Altrincham, showed a very choice lot of Odontoglossum hybrids, these being shown under numbers. One with a pale yellow lip specially appealed to us.

His Grace the Duke of Northumberland exhibited a very fine bank of well-grown plants, some particularly fine examples of Dendrobium thyrsiflorum forming the top back row. Beneath these Miltonias, Cattleyas, Odontoglossums and other kinds were freely arranged, the whole being very attractive. Among others Lælio-Cattleya canhamiana and Chysis bractescens were of special merit.

Mrs. Woods, Glossop (gardener, Mr. Gould), put up a good-sized bank of medium quality plants, some excellent Odontoglossums forming the background. In front we noticed some good forms of Cattleya Mossiæ, Lælio-Cattleya hyeana, L.-C. highburyensis and a good specimen of Miltonia vexillaria.

Leopold de Rothschild, Esq. (gardener, Mr. Reynolds), exhibited a very good group of the seldom-seen Vanda teres, the plants being large and especially well flowered.

Messrs. Moore, Limited, Rawdon, Leeds, had a very beautifully arranged group, the plants being well spaced out so that their beauty could be seen to the best advantage, the two Fern-lined bays being particularly attractive. The quality of the plants, too, left nothing to be desired.

The group from Sir Jeremiah Colman, Bart., V.M.H., Gatton Park, Surrey (gardener, Mr. J. Collier), was a remarkably fine one, the plants being noticeable for their high quality. Miltonias were particularly good, and Odontoglossums, Cattleyas and many other families which are not frequently met with were freely employed.

Richard Ashworth, Esq., Ashlands, Newchurch (gardener, Mr. J. Fletcher), had a small group of Orchids in a side tent, these comprising some good Odontoglossums and a good specimen of Dendrobium Victoria Regina, these bearing numerous lilac-tinted flowers.

MISCELLANEOUS GREENHOUSE PLANTS.

Messrs. Jackman and Son, Woking, well maintained their reputation as Clematis specialists by the fine exhibit they put up. Beautiful specimens, bearing ideal flowers in profusion, were in evidence. Among the better specimens were Fairy Queen, Miss Bateman, Nelly Moser, Ville de Lyon, Lady Northcliffe, Blue Gem, La France, purpurea elegans and the double Belle of Woking.

The superb group of stove and greenhouse plants from Messrs. James Veitch and Sons' Royal Exotic Nurseries, Chelsea, S.W., was an object of admiration. Handsome Caladiums Mme. J. Box, Rose Laing, Pantia Ralli and many others were conspicuous, as well as highly coloured Crotons in variety. Other splendid foliaged plants included Maranta insignis, Alocasia argyrea and A. watsoniana, as well as a beautiful lot of Orchids and Antirrhinums. Messrs. Veitch also had a miscellaneous group of flowering plants made in many pleasing tones and forms, all charmingly set up. Hardy Azaleas, Rhododendrons, Hydrangeas, Andromeda, Clematis, Roses and other subjects were each done full justice.

Exceedingly handsome was the group of Rhododendrons from Messrs. John Waterer and Sons, Limited, American Nurseries, Bagshot, Surrey. Superb examples of Pink Pearl predominated, the flowers being very large and handsome and the plants freely flowered.

Clematises from Messrs. Richard Smith and Co. of Worcester were represented by several capital specimen plants. Among other good sorts we noticed Sensation, Nelly Moser, Enid (very pretty) and Marie Lefebvre, all useful single sorts. Good doubles were Royal Purple, Venus, Victrix and Willisonii. Rambler Roses and Acers formed the background.

Fancy Pelargoniums were nicely shown by Mr. W. J. Godfrey, Exmouth. There was a charming series of plants embracing most of those worth growing. We noticed as specially good H. S. Davy, Devonshire Queen, Black Prince, Mabs, Queen of the West and Godfrey's Success. Of Ivy-leaved kinds Devonshire Lass and Countess de Grey were promising.

Messrs. James Carter of High Holborn, W.C., occupied the entrance to the first tent with a marvellous array of beautiful flowering plants—Schizanthus in variety, Gloxinias (a very fine strain), brilliant Cinerarias with large individual flowers and large, well-grown plants. Herbaceous Calceolarias filled one bay completely, and these were very good. There were also the stellate Cinerarias that were much admired, and with the new Spiræas in variety this firm worthily upheld their high reputation. The hanging baskets of Schizanthuses were very fine. Carnations and Begonias were also represented in this comprehensive display.

The Hon. Vicary Gibbs, Aldenham House, Elstree, staged a beautiful lot of new hybrid Streptocarpi. They were set up in blocks of a colour and were really beautiful.

Messrs. Hugh Low and Co., Enfield, had a miscellaneous array of plants, including the Bottle-Brush Tree (Metrosideros floribunda), Hydrangeas, Calla elliotiana, Schizanthus, Spiræas and many other plants.

Schizanthus in charming variety and in well grown plants were staged by Messrs. J. Garraway and Co., Clifton, Bristol. This firm has a very fine strain, the flowers being large and the colour beautifully varied.

New and choice plants were staged in delightful variety by Messrs. James Veitch and Sons, Limited, Chelsea. This is always a most interesting group, containing as it does many very choice subjects. Lobelia tenuior, Amphicome Emodii, Richardia elliotiana, Streptocarpus, Cannas, and the beautiful Cineraria Feltham Bouquet were included.

Messrs. Ker and Sons, Liverpool, exhibited a very beautiful series of Hippeastrums. There were many flowers of exceptional merit, and the whole of them were of good quality. Nestor, Empress, Cherry Plum, Chiron and The Queen were exceptionally good.

Caladiums from Messrs. John Peed and Son, West Norwood, S.E., were a most attractive lot, and were represented in a group of large and handsome plants. This was a superb display and did this firm great credit; Ferns and C. Argyrites made a pretty fringe to this fine group.

Messrs. Sutton and Sons, Reading, occupied the northern end of the large tent with a series of five large groups, representing in beautiful form and condition Schizanthuses, herbaceous Calceolarias, stellate Cinerarias (a really lovely group), with insets between each group of Clarkia (single salmon), double tuberous Begonias (a glorious array), Gloxinias in beautiful marking and a charming series altogether. Nemesia Suttonii, large and small flowered, and Nicotiana affinis hybrids were a pleasing feature.

Fragrant Heliotropiums made a charming group as set up by the King's Acre Nurseries, Limited, Hereford. The plants were well grown, each one bearing a grand head of bloom. Several varieties were represented, and the colours were pleasingly diverse.

Messrs. Sander and Sons, St. Albans, had a miscellaneous group of stove and greenhouse plants representing both flowering and foliage specimens. New and choice aptly describes this collection, which contained many gems.

A charming display of hardy Azaleas was made by Messrs. R. and G. Cuthbert, Southgate, N. The specimens were beautifully fresh, and the colours also warm and pleasing. This group was, indeed, a feast of soft yet warm tones of colour, and the plants were charmingly disposed. Interspersed among the Azaleas were richly coloured Acers for contrasting effects.

Messrs. William Bull and Sons, King's Road, Chelsea, London, had a most interesting group of stove and greenhouse plants, in the centre of which a smaller group of richly coloured Hippeastrums were a conspicuous feature. The latter were large and of good form.

A choice group of plants came from Mr. L. R. Russell, Richmond. There was a wealth of material in this group, but the plants might have been disposed to better advantage.

Mr. Frank Lloyd of Coombe House, Croydon, made a very handsome display of his new seedlings of Begonia Lloydii. Both in colour and form there are many charming variations, and this new type of Begonia must be regarded as a valuable addition to the long list of attractive greenhouse flowering plants.

An excellent lot of herbaceous Calceolarias came from Mr. Vivian Philips, Crofton Court, Orpington, Kent. The individual flowers were very large and well grown. The plants were much admired by the crowds of visitors, but required more table space to do them justice.

Mr. W. H. Page, Hampton, had a pretty bank of Rambler Roses, Liliums, Pelargoniums and the new pink Spiræa Queen Alexandra.

A very beautiful group of Ferns and other choice foliage plants was set up by Messrs. J. Hill and Sons, Barrowfield Nursery, Lower Edmonton.

A really handsome collection of Ferns in infinite variety was exhibited by Messrs. H. B. May and Sons, Upper Edmonton. We have seldom seen these plants better represented.

A collection of double and single Zonal Pelargoniums, in which were many of the new Cactus type, was set up by the same firm.

Messrs. H. Cannell and Son, Swanley, excelled in their representation of Phyllocactus, Fuchsia triphylla, Spiræa Peach Blossom and a gorgeous array of Cannas, all well grown. Begonia nitida was also a welcome feature in this large group.

Zonal Pelargoniums came from Mr. Vincent Slade, Taunton. The bunches, of which there were many, were of large size, and included a large number of sterling sorts — Lucania, Cymric, Mentmore, Hibernia and Lord Strathcona. This firm makes a speciality of this subject and does it well.

Messrs. W. H. Rogers and Son, Limited, Southampton, exhibited a group of their new hybrid Pelargonium James T. Hamilton. This is a cross between an Ivy-leaved variety and a Zonal, and the result is distinctly good. The colour is a brilliant crimson and is most effective.

Mr. Howarth, gardener to Mr. Wickham Noakes, Selsdon Park, Croydon, exhibited a very beautiful lot of herbaceous Calceolarias. The plants were in excellent condition, and seldom have we seen their equal.

Messrs. W. and J. Brown, Stamford, exhibited a great variety of flowering and foliage plants in the form of a table group. Verbenas in variety, Spiræas, Lilacs, Heliotropiums and a variety of other plants were a feature of the long tent.

Small Ferns in wonderful assortment came from Mr. H. N. Ellison, West Bromwich. There were many plants that appealed to a large number of visitors, so interesting and varied were they.

Indian Azaleas were represented by a large number of trained specimens that were exhibited by Mr. Charles Turner, Slough. The plants were of good size, freely flowered and distinctly pleasing. Mme. van Houtte, Chicago, Professor Walters and others were notable specimens.

Herbaceous Calceolarias came from Messrs. Toogood and Sons, Southampton. There was a nice table group of well-grown plants.

SWEET PEAS.

Mr. Robert Sydenham, Birmingham, made a display of about forty vases of Sweet Peas, which included standard sorts and novelties, George Herbert, White Spencer and several very fine seedlings being charmingly represented. Lily of the Valley, growing in fibre, was shown in attractive fashion in this group.

A beautiful collection of Sweet Peas came from Messrs. E. W. King and Co., Coggeshall, Essex. Bamboo stands and vases were used on which to dispose the blossoms, and they looked most attractive. Mrs. William King, Lord Charles Beresford, Evelyn Hemus and Princess Victoria stood out from the rest.

H. J. Jones's Nurseries, Limited, Lewisham, S.E., set up a large and comprehensive display of Sweet Peas in glasses specially well adapted for the purpose. All the standard kinds were seen in excellent condition, and quite a number of new ones were largely in evidence.

Messrs. G. Stark and Son, Great Ryburgh, staged a small collection of Sweet Peas.

Beautiful, indeed, were the Sweet Peas from Mr. Breadmore, Winchester. The better varieties in this charming exhibit were King Alfonso, Marjorie Linzee, Dazzler, Elsie Herbert, Constance Oliver, Princess Juliana (a new primrose), Mrs. C. W. Breadmore, Audrey Crier and Etta Dyke.

Sweet Peas from Messrs. Dobbie and Co., Rothesay, were very fine indeed, although not numerous. The flowers were daintily set up, of good colour and were well grown. Dobbie's Mid Blue, Mrs. A. Ireland, Betty Cantley, New Crimson, Masterpiece, Earl Spencer and others were all very striking.

Mr. Robert Chaplin, Waltham Cross, had a dainty exhibit of Sweet Peas. The flowers were fresh and nicely coloured, and included most of the standard sorts. George Herbert, Mrs. Collier, White Spencer, E. J. Castle and a good seedling were noteworthy.

Messrs. G. and A. Clark, Limited, Dover, displayed a small collection of Sweet Peas in rustic metalware. The flowers were well grown and embraced several excellent sorts.

BEGONIAS.

Magnificent quality was represented in the group of plants shown by Thomas S. Ware ('02), Limited, Feltham. Large and attractive flowers of a beautiful series of colours and of exquisite form, all grandly staged, revealed the decorative quality of the Begonias as is seldom met with.

Messrs. Blackmore and Langdon, Twerton Hill Nurseries, Bath, set up a group of Begonias staged in artistic fashion, and this included magnificent quality throughout. We liked this arrangement very much.

A small group of Begonias was staged by Messrs. John Laing and Sons, Forest Hill, S.E. Although a pretty little exhibit, we have in our mind the fine quality of exhibits staged in years gone by.

HARDY PLANTS AND ALPINES.

At the opening in No. 3 tent Messrs. Barr and Sons, Covent Garden, displayed, as usual, a fine assortment of hardy plants, embracing bulbous, alpine, and the more showy and choice of herbaceous perennials. Early flowering Pæonies, Irises of the Xiphioides section, Heucheras, Columbines, Pyrethrums and other showy plants were in profusion.

The Guildford Hardy Plant Nursery displayed a good variety of alpine and other hardy plants, among which we noted Cypripediums, many choice Androsaces, alpine Phloxes, early Irises, Ledums, Heucheras and other plants. Anthyllis montana and Onosma alba rosea were also noted.

Messrs. Dobbie and Co., Rothesay, had a delightful lot of the Tufted and exhibition Pansies or Violas, together with a large assortment of the fancy sorts. It is almost impossible to give names where a representative gathering of all the sections named was to be seen.

Mr. G. Reuthe, Keston, Kent, had one of his remarkable displays of choice alpines, Rhododendrons and other plants, such Daphnes as Cneorum, Ourisia coccinea, Onosma taurica, Primula cockburniana, many beautiful Androsaces and Ramondias.

Mr. R. C. Notcutt, Woodbridge, had a compact group of herbaceous flowers, Poppies, Lupines, Geums, Irises, Pyrethrums and other things being prominently displayed.

Mr. Howard H. Crane, 4, Woodview Terrace, Highgate, N., had a delightful lot of the Tufted Pansies and Violettas, of which for some years past he has made a special study. In the latter group in particular we now find many beautiful and decided colours, notably such as Rock Yellow, Purity, Vestal, Gertrude Jekyll, Diana and many seedlings.

Bakers, Wolverhampton, displayed a very fine assortment of Tufted and exhibition Violas, a large and representative gathering of herbaceous and bog plants, Poppies, Saxifrages, alpine Phloxes, Cypripediums, and Sarracenias also being noted. In a further extension the firm displayed a rockery exhibit, which was furnished with many good and delightful plants.

Clarence Elliott, Stevenage, displayed alpines on limestone rock, and the alpine Saxifrages and Gentians were very beautiful.

Messrs. Pulham, Broxbourne, Herts, also had a rock garden arrangement, whereon Incarvilleas, Trilliums, Gentians and other plants were placed. Androsace Chumbyi was very beautiful.

Mr. M. Prichard, Christchurch, Hants, set up a rock garden in the open, and arranged many choice plants thereon. Among the choicer things were Wahlenbergia saxatilis, Iris gracillipes, Ramondias, Viola pedata, Primula bulleyana, Anemone alpina sulphurea, Potentilla Miss Willmott and a fine form of Campanula Allioni.

The rockwork arrangement from Messrs. Backhouse and Son, York, was pleasing and good, the colonies of Ramondias, Iris cristata, Primula sikkimensis, Gentians, Cypripediums, Saxifrages, Daphnes, Haberleas, Phlox canadensis and the like being very charming.

From Messrs. Bees, Limited, Mill Street, Liverpool, came Incarvillea Bonvalotii, a very fine plant. Primula bulleyana (with verticillate inflorescences of orange flowers), P. Forrestii and P. lichiangensis were a trio of very beautiful plants.

Messrs. Harkness and Sons, Bedale, had a fine group of Globe Flowers, the blossoms individually of large size and rich colouring showing these things to advantage.

Messrs. Cutbush and Son arranged a rock and water garden in the open, the arrangement reflecting taste and skill on the operators. Eremuri, Darlingtonias, Sarracenias, Primulas, Liliums and flowering shrubs were disposed in a most natural manner. Flowering shrubs were abundant and good.

The King's Acre Nurseries, Hereford, had a pretty group of alpines on rockwork, a large number of choice plants being displayed, Primula Sieboldii in variety, Incarvillea grandiflora, many showy Saxifrages, hardy Cypripediums, Onosma taurica, alpine Phloxes, Primula sikkimensis, Haberlea rhodopensis and other good things being noted.

Messrs. Jackman and Sons, Woking, displayed a sumptuous group of the best herbaceous plants, in which the Globe Flowers, Oriental Poppies, Lupines, Spanish Irises, early Gladiolus and Pyrethrums were well represented. Hardy Cypripediums were particularly good, and with such things as Incarvillea grandiflora and Daphne Cneorum a very fine show was made.

Messrs. G. and A. Clark, Limited, Dover, had a capital group of hardy flowers, in which alpine Phloxes, Pyrethrums, Irises, Eremuri, Poppies, Tulips and Globe Flowers were displayed to advantage.

Mr. Godfrey, Exmouth, displayed his many beautiful varieties of the Oriental Poppy in shades of red, crimson and salmon.

The Tulips from Messrs. Hogg and Robertson, Dublin, were very fine, the self-coloured Darwins commanding attention at once, La Tulipe Noire, Velvet King, Clara Butt, The Fawn and Scotia, a flamed flower with good perfume, being particularly noticeable.

Mr. B. Ladhams, Southampton, had a fine group of herbaceous plants, in which a gloriously fine Heuchera named Shirley was strikingly displayed. Ostrowskia magnifica, Aquilegia Stuartii and Incarvillea grandiflora were good.

Messrs. Gilbert and Son, Bourne, Lincolnshire, had many varieties of Anemones, these being very beautiful and effective.

Messrs. Alex. Dickson and Sons, Limited, Belfast and Dublin, had a remarkably good lot of Tulips, chiefly May-flowering and Darwins, Europe, N. F. Barnes, Negro, Mr. Farncombe Sanders, La Candeur, Gorgeous, Duchess of Westminster, La Tulip Noire and Cherry Ripe being conspicuous among the latter.

Messrs. William Artindale and Sons, Nether Green, Sheffield, had a delightfully fresh lot of Violas, and these arranged on dark velvet with small pieces of Asparagus made a pleasing display. The firm also set up a rockery exhibit, and here, too, many good and choice things were advantageously displayed.

Messrs. George Bunyard and Co., Maidstone, had a very fine hardy plant group, in which Pæonies, Tulips, Eremuri, Poppies, Geums and other showy plants were to be seen. Meconopsis integrifolia, the double Anemone sylvestris, Geum Heldreichii, Irises and Pyrethrums were amply displayed and in superb condition.

The Craven Nursery, Clapham, Yorkshire, brought a delightful exhibit of alpines, arranged with much taste and skill. Perhaps

the most charming plants in a very delightful lot were the lovely tufts of Iris cristata full of flower and buds and the exquisite rose pink Daphne rupestris from the Tyrol.

Messrs. Gunn and Sons, Olton, near Birmingham, exhibited a fine mass of Viola cornuta atropurpurea and V. c. alba, the former making a superb bank of colour, well demonstrating the value of the plant.

Messrs. Joseph Cheal and Sons, Crawley, had a pretty rockwork arrangement, displaying choice alpines in the best and most natural manner possible.

Mr. Amos Perry, Hardy Plant Farm, Enfield, had a sumptuous group of hardy plants, displaying to advantage such as Papaver Mrs. Perry, Thalictrum orientale, Phlox canadensis Perry's variety, Lithospermum canescens, Tree Pæonies, Thermopsis fabacea and, not least, a very remarkable lot of Irises.

Mr. M. Prichard, Christchurch, Hants, had a rich display of good things—Poppies, Pæonies, Irises, Pyrethrums, Eremuri, early flowering Gladioli and others.

Mr. H. Hemsley, Crawley, had a capital rockery exhibit arranged with alpines and shrubs, the former including Edraianthus, Achillea, Myosotis rupicola, Phloxes and other good things. Iris cristata was also noteworthy, and Ramondias, and other plants were nicely disposed.

The Misses Hopkins, Shepperton, had a large rockery exhibit arranged in the open and tastefully planted with choice alpine and hardy plants. The alpine Phloxes and Saxifraga pyramidalis were prominent features.

The hardy plant group from Messrs. Wallace and Co., Colchester, presented an imposing picture of the best hardy herbaceous and bulbous flowers, in which Lilies, Irises, Tulips, Poppies, Eremuri, Ixias and other things were prominent. Particularly good were the displays of Eremurus robustus, E. himalaicus and others, while handsome groups of many Lilies were also noticeable. In the open Messrs. Wallace arranged a natural rock and water garden, where many alpines, rock plants and shrubs were seen to advantage.

Messrs. R. H. Bath, Limited, had a very fine display of Tulips and Irises, the former including Darwin and May-flowering varieties.

OUTDOOR GROUPS.

Messrs. James Veitch and Sons, Limited, arranged a very charming group outdoors, in which was included Primulas in variety, Phloxes, Eremuri, Rhododendrons, Deutzia, Meconopsis and Wistaria. Altogether a beautiful display.

Roses and Carnations in beautiful variety, prettily disposed, as shown by Messrs. Hugh Low and Co., made a welcome break-away from the orthodox grouping followed at this show.

Messrs. Barr and Sons' Japanese pigmy trees were as fascinating as ever. A large number of specimens were shown of various ages and most of them in good condition.

Miscellaneous flowering and foliage plants were prettily grouped by Mr. R. C. Notcutt, Woodbridge. The Azaleas were very charming, as were the Hydrangeas, Cytisus and the Spiræas. Altogether a most interesting series of plants.

Clipped trees of Yew and Box were splendidly shown by Messrs. W. Cutbush and Son. The representations in this instance were pleasing and very varied, and the trees were all in the pink of condition. Messrs. Cutbush also had a group of Spiræas Pearl Blossom, Verbenas and other flowering plants.

Messrs. Paul and Son, Cheshunt, made a small group of beautiful Lilacs and other useful hardy plants, both flowering and foliage.

Rhododendrons and Japanese Maples were freely shown by Messrs. John Waterer and Sons, Limited, Bagshot. The first mentioned were very handsome, and with Kalmias made a beautiful piece of colour on the green sward.

Japanese Maples and a fine batch of Rhododendrons Pink Pearl well upheld the reputation of Messrs. Thomas Cripps and Son, Limited, Tunbridge Wells, Kent. Acer palmatum palmatifidum was a grand specimen, and there were many such plants as Retinospora obtusa Crippsii in variety.

Messrs. H. Lane and Son, Great Berkhamsted, Herts, grouped in impressive fashion hardy Azaleas, Rhododendrons, Rambler Roses, Genistas and other plants. The rain interfered with the display seriously.

Messrs. J. Cheal and Sons, Crawley, Sussex, set up a large group of useful hardy flowering and foliage plants. Spiræa confusa, Rhododendrons, Clematis and a large and varied collection of subjects, all most interesting, filled a large space and did this firm great credit.

FRUIT.

Messrs. George Bunyard and Co., Maidstone, had, as usual, a very interesting exhibit of Apples in a remarkably good state of preservation, some seventy varieties being very tastefully displayed on dishes, a raised stand in the centre adding to the beauty of the whole. Two fine Cherry trees in full fruit in pots were placed one at each end.

Messrs. Laxton Brothers of Bedford were well maintaining their high reputation with a splendid exhibit of Strawberries, gathered fruits and fruiting plants in pots being freely and tastefully displayed. The colour and size of the whole was excellent.

Messrs. T. Rivers and Son of Sawbridgeworth were showing Peaches and Nectarines, Cherries and Grapes in pots in their usual high-class style. The Peaches were particularly well coloured, the trees bearing very heavy crops of large-sized fruits. Peaches Peregrine and Duke of York and Nectarines Cardinal and Rivers' Early were all shown to perfection.

VEGETABLES.

Messrs. Sutton and Sons of Reading well maintained their high reputation with two superb vegetable exhibits. One was composed of Potatoes grown under ordinary frame culture from sets planted on February 26th. These were of good size and excellent quality, the whole being most tastefully displayed. Messrs. Sutton's other vegetable exhibit included all that is good in the vegetable world, and the produce was a silent but strong testimonial to the value of the Sutton strains. Over forty varieties of vegetables were included, these comprising such as Peas, Asparagus, Climbing French Beans, Lettuce, The Sutton Rhubarb, Tomatoes, Cucumbers, Radishes, Vegetable Marrows, Mushrooms and many others, the whole forming a most interesting and praiseworthy group.

Mr. S. Mortimer, Farnham, Surrey, exhibited a very good lot of Cucumbers and Tomatoes, these being in first-class condition. Among the former were Express, Tender and True (extra good), Mortimer's Bounteous, Improved Telegraph, and Approved or Lord Roberts.

The Thatcham Fruit and Flower Farm, near Newbury, which is really a school of gardening for girls, staged a group of vegetables and salads grown under the French system. Lettuces, Cabbages, Turnips, Carrots, Mushrooms, Peas and Cauliflowers were all freely displayed in good condition, the whole forming an interesting exhibit.

OFFICIAL LIST OF AWARDS.

Gold Medals.—Messrs. Charlesworth and Co., Hayward's Heath, for Orchids; Messrs. W. Cutbush and Son, Highgate, for rock garden plants; Messrs. James Veitch and Sons, Chelsea, for stove foliage plants, herbaceous plants, flowering plants, trees, &c.; Messrs. R. Wallace and Co., Colchester, for Tulips, Lilies, Pæonies, Irises, hardy plants and water garden; Messrs. William Paul and Son, Waltham Cross, for Roses, trees and shrubs; Messrs. Paul and Son, Cheshunt, for Roses, Lilacs and new shrubs; Messrs. H. B. May and Sons, Edmonton, for exotic and hardy Ferns, and flowering plants; Mr. H. Burnett, St. Margaret's, Guernsey, for Carnations; Messrs. J. Waterer and Sons, Limited, Bagshot, for Rhododendrons, flowering and evergreen shrubs.

Silver Cups.—Sir J. Colman, Bart. (gardener, Mr. J. Collier), Gatton Park, Surrey, for Orchids; Leopold de Rothschild, Esq. (gardener, Mr. G. Reynolds), Gunnersbury Park, W., for Vandateres; Mrs. Kershaw Wood (gardener, Mr. J. Gould), Glossop, Derbyshire, for Orchids and Gloxinias; Messrs. Armstrong and Brown, Tunbridge Wells, for Orchids; Messrs. Sander and Sons, St. Albans, for Orchids and foliage plants; Messrs. J. Veitch and Sons, Chelsea, for hardy flowering plants and shrubs; Mr. L. R. Russell, Richmond, Surrey, for flowering trees and shrubs; Messrs. J. Carter and Co., Holborn, W.C., for flowering plants, Begonias, Carnations, Gloxinias, &c.; Messrs. Barr and Sons, Covent Garden, W.C., for hardy plants, pigmy trees and herbaceous; Messrs. G. Jackman and Son, Woking, for Clematis and hardy plants; Mr. A. Perry, Enfield, for Tree Pæonies and herbaceous; Mr. G. Reuthe, Keston, for alpines, Rhododendrons, Tulips and rare shrubs; Messrs. H. Cannell and Son, Swanley, for Cannas, Cacti and Phyllocactus; Messrs. J. Cheal and Sons, Crawley, for trees and shrubs, alpines and rock garden; Messrs. Bell and Sheldon, Guernsey, for Carnations; Messrs. F. Cant and Co., Colchester, for Roses; The Craven Nursery, Clapham, Lancaster, for alpines; Mr. G. Mount, Canterbury, for Roses; The American Carnation Nursery, Sawbridgeworth, for Carnations; Messrs. T. Cripps and Son, Tunbridge Wells, for Japanese Acers, &c.; Messrs. Alex. Dickson and Sons, Newtownards, for Tulips and Roses; Hobbies, Limited, Dereham, for Roses; Messrs. J. Backhouse and Son, York, for a miniature rock garden; Messrs. R. and G. Cuthbert, Southgate, N., for Azaleas; Messrs. R. P. Ker and Son, Liverpool, for Amaryllis; Messrs. W. Cutbush and Son, for clipped trees, Carnations, Roses, &c.; Messrs. Sutton and Sons, Reading, for greenhouse plants; and Messrs. T. Rivers and Son, Sawbridgeworth, for fruit trees in pots.

Sherwood Cup (value £21).—Class 1 B, for group of Orchids, F. Menteith Ogilvie, Esq., Oxford, for Orchids; silver cup to Sir Jeremiah Colman, Reigate, for Orchids. Class 1 C, group of Orchids, not exceeding 75 sq. ft., first (Veitch Memorial Medal and £5), Duke of Marlborough; second, small silver cup, Mrs. Kershaw Wood of Glossop. Class 1 D, Orchids not exceeding 35 sq. ft., first, silver cup, not awarded; second, silver Flora medal, to Mr. R. Ashworth, Manchester.

Silver-gilt Flora Medals.—F. Lloyd, Esq., Coombe House, Croydon (gardener, Mr. M. Mills), for a group of Begonias; R. Adnet, Esq., Cap d'Antibes, France, for hybrid Gerberas; J. W. Moore, Limited, Rawdon, Leeds, for Orchids; M. Prichard, Esq., Christchurch, Hants, for alpine and rock plants; Bakers', Wolverhampton, for Violas, Sweet Peas, rock garden and herbaceous plants; Messrs. T. S. Ware, Feltham, for Begonias, Carnations, &c.; Messrs. Blackmore and Langdon, Bath, for tuberous Begonias; Messrs. R. H. Bath, Wisbech, for Tulips and Carnations; Messrs. H. Low and Co., Enfield, N., for Orchids, Carnations and Roses; Messrs. C. Turner, Slough, for Roses and Azaleas; Messrs. B. R. Cant and Son, Colchester, for Roses; Messrs. A. F. Dutton, Iver, Bucks, for Carnations; Messrs. J. Peed and Son, West Norwood, for Caladiums; Mr. C. F. Walters, Balcombe, for Carnations; Messrs. J. Hill and Son, Lower Edmonton, for Ferns; and Messrs. W. Fromow and Son, Chiswick, for Japanese Maples.

Silver-gilt Knightian Medals.—Messrs. G. Bunyard and Co., Maidstone, for fruit trees in pots; and Mr. S. Mortimer, Farnham, Surrey, for Carnations, Cucumbers and Tomatoes.

Silver-gilt Banksian Medals.—Mr. W. H. Page, Hampton, for Carnations, Liliums, Roses, &c.; Mr. R. C. Notcutt, Woodbridge, for hardy flowers: Messrs. W. Bull and Son, Chelsea, for Orchids, foliage plants and cut flowers; and Messrs. R. Smith and Co., Worcester, for Clematis.

Silver Knightian Medals.—Messrs. Hughes, Jones and Peers, Thatcham Fruit Farm, Newbury, for vegetables and salads; Mr. R. Stephenson, Burwell, Cambridge, for Asparagus: Messrs. J. and F. Chatfield, Southwick, Sussex, for Strawberries; and Messrs. Laxton Brothers, Bedford, for Strawberries.

Silver Flora Medals.—The Hon. Vicary Gibbs (gardener, Mr. E. Beckett, V.M.H.), Elstree, Herts, for Streptocarpus; Wickham Noakes, Esq. (gardener, Mr. W. Howarth), Selsdon Park, Croydon, for Calceolarias; H. Mathias, Esq., Stubbington, Hants, for Carnations; Mr. A. R. Upton, Millmead, Guildford, for alpines; Mr. J. Piper, Bayswater, W., for trained Box trees; Misses Hopkins, Shepperton, for alpines and rock plants; Mr. C. Engelman, Saffron Walden, for Carnations; Messrs. Cypher, Cheltenham, for Orchids; Messrs. G. and A. Clark, Limited, Dover, for hardy flowers, plants, &c.; Mr. C. W. Breadmore, Winchester, for Carnations, &c.; Messrs. Dobbie and Co., Rothesay, for Violas and Sweet Peas; Messrs. Hogg and Robertson, Dublin, for Tulips; Mr. H. Hemsley, Crawley, for alpines and rock plants; Messrs. H. J. Jones, Limited, Lewisham, for Sweet Peas, &c.; Mr. W. R. Chaplin, Waltham Cross, for Sweet Peas; Mr. J. Green, March, for Carnations; Messrs. E. W. King and Co., Coggeshall, for Sweet Peas; Messrs. Ladhams, Limited, Shirley, for hardy flowers and plants; Mr. W. H. Lancashire, Guernsey, for Carnations; and Mr. George Prince, Longworth, for Roses.

Silver Banksian Medals.—Messrs. Stanley and Co., for Orchids; Messrs. W. Artindale and Son, Sheffield, for alpines, &c.; Messrs. G. Mallett and Co., Cheddar, for rock and herbaceous plants; Mr. W. H. Page, Hampton, for Carnations, Roses, &c.; The King's Acre Nurseries, Limited, Hereford, for alpines and herbaceous plants; Mr. C. Elliott, Stevenage, for a miniature rock garden; Mr. H. H. Ellison, West Bromwich, for Ferns; Messrs. Gunn and Sons, Olton, for hardy herbaceous plants, &c.; Mr. Frank Lilley, St. Peter's, Guernsey, for Gladioli and bulbous plants; Messrs. Storrie and Storrie, Perth, for Polyanthus and Auriculas; and Vivian Phillips, Esq. (gardener, Mr. T. Hobbs), Orpington, for Calceolarias.

yrenees, and there are places where the typical lue flowered plant is found in the greatest rofusion, its pretty blue flowers casting a heen upon the mountain-side almost, but ot quite, comparable with that of our native cilla festalis, the Bluebell of the English voodlands. How long this Scilla has been in British gardens it is hard to say, but it was nown to Parkinson, who described and figured t under the name of "The blew Lilly leafed tarre Iacinth." The white variety, now carce, and shown in the illustration on page 265, was also referred to by the old writer in is "Paradisus" in this manner: "Hyacinthus Stellatus Lilifolius albus: The White Lilly leafed Starre Iacinth. The likenesse of this Iacinth with the former, causeth me to be briefe, and not to repeate the same things againe, that haue already been expressed: You may therefore vnderstand, that excepting the colour of the flower, which in this is white, there is no difference betweene them. I heare of one that should beare blush coloured flowers, but I haue not yet seen any such."

Parkinson refers to a distinguishing feature of the plant, which has received due notice from writers; this is the Lily-like scales of the bulbs. The general character of this Squill is so clearly shown by the photograph that few details are necessary. It grows to about 1 foot high in medium soil; the broad leaves are rather handsome, of a glossy green, and among them rise the stems, bearing graceful heads of pretty flowers, pure white in the one photographed, but of various shades of blue in the typical species. It flowers about May, or sometimes late in April. This white Scilla Lilio-Hyacinthus is scarce in gardens, but the writer knows of one old place where it has been cultivated for many years, and where it thrives in common soil, as it does with him. The variety having reddish or blush flowers I have never met with, and judging from Parkinson's reference it must have been rare in his day. It is probably a plant yet to be found in some old garden, or "on the Pyrenean Hills or that part of France called Aquitaine," where our "father of English gardening" tells us this Lily Hyacinth grows.

Dumfries. S. Arnott.

NARCISSUS POETAZ IRENE.

POETAZ NARCISSI.

The ups and downs of different kinds of Daffodils and Tulips in public favour would form an interesting and surprising article if anyone were to take the subject up and write one. The man who first bought the stock of Tulip Coleur Cardinal was blamed by his father for making such a poor purchase, and for a long time it was practically unsaleable; and only last year Glory of Leiden Daffodil might have been purchased in the wholesale market for a less sum than it can be bought to-day. The Poetaz section of the Narcissus family has now been in commerce for some years, but up to the present it is not appreciated as much as its intrinsic merits warrant it should be. Perhaps when it is better known the flower-loving public will grow it in larger quantities. My object in these notes is to introduce some of the best kinds to the notice of the readers of The Garden, feeling sure that their verdict will not be very different from that of a friend whom I persuaded to try them this spring. "Thanks so much," he said, "for telling me about the Poetaz. Everyone liked them and said they must have some themselves another year." Their special value consists in their adaptability and suitability as pot plants. Compared with the old-fashioned Polyanthus Narcissus they have many points in their favour. First, their scent is pleasant and agreeable, quite unlike the heavy and (to use a word of Parkinson) stuffing perfume of the latter. Secondly, they have nice long flower-stems and the flowers are carried well above the foliage. Thirdly, they are as hardy in the coldest districts as any ordinary Daffodil. And, lastly, the flowers themselves, although never so many in a bunch, are much finer and better than any in the older section, with the exception of Bazelman major, Muzart orientalis and, possibly, one or two more. The only caution that I feel I need give with regard to their cultivation under glass is that my present experience warns me not to attempt to force them too early, but to treat them more like ornatus and to be content with flowering them about the middle of February and onwards. In the open they are perfectly hardy and may remain for two or three years in the same place; longer would not be advisable, as most varieties increase quickly.

Origin and General Description.

In the year 1885 there happened to be growing side by side in the bulb fields of Messrs. R. van der Schoot and Son, at Hillegom, some beds of ornatus and different kinds of Tazetta. A happy inspiration suggested that an attempt should be made to cross them. The ornatus was chosen as the seed parent, and such kinds as Bazelman major, Gloriosa, Grand Monarque, Staten Generaal, and two or three of the best yellows were used for their pollen. There was a fair crop of seed, which in due course was sown and germinated. When the seedlings became flowering plants the best were selected and the task of working up stocks began. I had the pleasure of seeing large patches of them in their original home in Hillegom at the end of April. I then understood why two varieties, Jaune à Merveille and Sunset, are so expensive compared with others like Elvira and Alsace; it is because they increase so slowly compared with the others. In their general appearance this new race partakes of the characters of both parents. The Poet shows itself in the larger flowers and in some of the cups, while the Tazetta appears in their having several flowers upon one stem. To sum up, they may be described as a large-flowered Polyanthus Narcissus having from two to six blooms on a stem, more pleasantly scented and, generally speaking, with a looser and more artistic perianth. The photograph of Narcissus Poetaz Irene on this page gives a good idea of their general appearance.

Varieties.

Alsace. The best for early work in pots Perianth, white; cup, yellow; about three flowers on a stem.

Aspasia. — The best of the whites for out of doors. Fine large flowers, carried well above the foliage. Perianth, white and flat; cup, yellow; from two to five flowers on a stem.

Elvira.—Good for the latest batch in pots. Nice flat flower with a white perianth and a yellow cup, edged with orange when it first opens. Generally three to five flowers on a stem.

Ideal.—A small flower with a rather uneven white perianth and a very deep orange cup. Very free, with usually four to six flowers on a stem.

Irene.—A small-flowered variety with a pale primrose perianth and a fluted deep yellow cup. A very free bloomer.

Jaune à Merveille.—A magnificent yellow. It is very nearly a self, but has an edge of red round the cup when it is grown cool. The individual flowers are large and their perianths even and flat. From four to six flowers on a stem. The best yellow for pots. Late flowering.

Klondyke and Lucia.—Somewhat similar varieties of a deeper shade of yellow than Irene. Of the two I consider Lucia the best. It has better foliage and its perianth does not turn back so much. Both kinds are very free.

Sunset.—A very beautiful flower with a broad, overlapping yellow perianth and a deep orange cup. It is a very delightful flower in pots and quite unlike any other variety. Unfortunately, the price of this kind and also of Jaune à Merveille is high, and as they increase slowly I fear it will be some time before it is lower.

Triumph. – A very large white, but not wanted if Aspasia is grown. There are a few other fine things in this section which at present are not in commerce or are very expensive. One is Orient, a fine tall variety raised by Mr. Engleheart, with a beautiful white Almira-shaped perianth and a yellow cup with a most distinct red edge. Another is Scarlet Gem, a new variety with a red cup, listed by Messrs. Cartwright and Goodwin at £5 each. It obtained an award of merit this year at Birmingham. A third is a lovely variety which I saw this year at Messrs. de Graaff's in Holland. It is a larger edition of Scarlet Gem. There may be other kinds in the making, but until they make their appearance I think there are enough in the above list to supply sweet-scented pots of flowers for the house or the conservatory in the early months of the year.

Joseph Jacob.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Bedding-out will this week be in full swing, and if the information given in previous calendars has been acted upon the plants and beds will be in proper condition for the work. The designs, of course, will be decided upon before the work is commenced. All the plants which are to occupy a

I.—AN OLD PLANT OF SAGE LIFTED READY FOR DIVISION.

bed should be laid out before planting is commenced; then it is an easy matter to make any rearrangement that may be necessary, and the planter is also able to see whether the material available will allow of the plants going as close together as is desirable. Planting should always be done with a trowel and the soil made firm around the roots, levelling over the surface as the work proceeds. A good watering in must be afforded as soon after planting as possible, and should the weather subsequently prove dry, other waterings must be given until the plants are well established. Where tall, old plants of Geraniums and Marguerites have to be used to eke out the supply, these may with advantage be planted in a sloping manner, so that their tops do not unduly rise above the others. In most localities it will now be safe to plant out Dahlias from pots, and where the stations were prepared as advised a few weeks ago, the work will not take up much time. A stout stake should be placed in position first and then the plant set against this. A sprinkling of soot around, not on, the plant after watering will keep slugs at bay. Where seeds of annuals were left over in the packets at sowing time, some of these may be sown now, and if the weather proves at all favourable, the resultant plants will give a good account of themselves in the autumn.

Vegetable Garden.—French Beans in pots may now be planted out in rows 15 inches apart, allowing a distance of 1 foot between the plants. Make a further sowing of Scarlet Runners to follow those sown earlier; that is, where a considerable quantity of this vegetable is desired. Tomatoes may be planted out in warm, sunny positions, taking care to disturb the roots as little as possible. Where grown against a wall or close boarded fence, the plants may be placed 18 inches apart, keeping all side shoots pinched out as they appear, so as to confine the plant to one stem. They must be secured to the wall as soon as planted, but be careful to allow room for the stem to swell. Where planted in the open the rows should be 3 feet 6 inches apart and the plants 18 inches asunder, providing stout stakes for support and pinching out side shoots as previously advised. Greens, such as Brussels Sprouts, Cabbages and Cauliflowers, that were sown in the open as advised in March, are now ready for planting in their permanent quarters, and a rainy day should, if possible, be chosen for the work. The plants should be lifted from the seed-bed with a hand-fork or trowel (not pulled, as is usually done) and replanted where they are to grow by means of a trowel. The distance apart to plant will depend upon the variety, but instructions on this point are usually given with the seed. Watering will be needed should the weather prove at all dry, and any neglect in this respect will mean considerable losses.

Fruit Garden.—The fruits of Strawberries are now swelling freely, and where extra fine specimens are desired a good soaking with weak liquid manure at intervals of about four days will be of great assistance, first watering with clear water. Vines in cool houses will by now have set their fruits, and the latter will be swelling freely, consequently thinning of the berries must be attended to. A long, pointed pair of scissors must be used and a piece of stick about a foot long employed to steady the bunch, it being unwise to touch the berries with the hands. First cut out all small and malformed fruits, then those that are placed inside the bunch, taking into consideration the general shape it is desired the cluster should take. Shoulders, which are produced freely in some instances, should be thinned the same as the main portion of the bunch and then looped up with raffia or Raffiatape to the wires. It is a mistake to cut these shoulders right off unless bunches of a particularly good shape are required.

Greenhouse and Frames.—It is now time to sow Cinerarias, and every beginner in gardening should try his or her hand at these. The one point to observe above all others in their culture is cool treatment; coddling must not at any time be resorted to, or disaster is certain to accrue. Shallow pans or boxes that are well drained are the best receptacles for sowing the seeds in, soil composed of good loam two parts, peat or leaf-soil one part, and silver sand one part being suitable. This must be finely sifted and made moderately firm in the pans or boxes, filling these to within half an inch of their rims. Scatter the seed thinly and evenly on the surface and cover with a mere sprinkling of the fine soil, after which carefully water and cover with brown paper, standing the boxes or pans in a cool corner of the greenhouse. Remove the paper as soon as the seedlings appear and grow them on near the glass in a freely ventilated house or frame. When large enough to handle they must be potted singly into small pots and moved into larger ones as growth advances.

H.

THE COMMON SAGE AND ITS CULTURE.

THE common Sage is one of our most popular garden herbs and is a subject that may be grown with comparative ease. The plant is known to botanists by the name of Salvia officinalis, and is a perennial; an evergreen shrub more correctly describes the plant. Market growers often devote considerable areas to this subject and find it more profitable than most other herbs. It revels in a border that has a warm aspect, and if the plants are to be seen to advantage they should be planted in a border facing west, where the soil is of a well-drained character. Should the soil of the garden be of heavy texture, this may be improved by thoroughly trenching it, incorporating at the time a heavy dressing of well-rotted horse-manure, road-grit, wood-ashes and leaf-mould when the latter can be obtained on the spot. The common Sage may be propagated by seeds, cuttings, or by division of the old plants. Seeds should be sown in a warm border in the spring, March or April answering the purpose well. As soon as the seedlings can be handled with ease, they must be pricked out in specially prepared quarters, observing a distance between the young plants of about 4 inches. A year subsequent to this operation these seedling plants will have developed into useful little specimens, at which period they should be planted in their permanent quarters. This method of raising Sage from seed, however, is a rather slow process, and few growers are disposed to wait so long for results when they can obtain useful plants in a much less time with a minimum of trouble by division of the old plants or by the insertion of cuttings. Of these methods the former is to be preferred. In order to make the matter quite clear to the beginner, we have portrayed in Fig. 1 a well-established plant that has been lifted from the open border. A close observation of the plant will reveal the well-rooted character of this specimen. Now, the

2.—TWO EXAMPLES OF THE DIVIDED PIECES OBTAINED FROM THE PLANT SHOWN IN FIG. I.

beginner should understand that plants of this description divide quite easily. By inserting the thumbs and fingers well into the crown of the plant we may first of all divide such a specimen into three or four pieces of goodly proportions, too large in themselves to plant individually if our object be that of making the most of our material. These large pieces should therefore be sub-divided, and as many pieces as possible, similar to those represented in Fig. 2,

3.—A SAGE CUTTING PREPARED READY FOR INSERTION.

be brought into being. In the two pieces in the illustration readers will notice there is a plentiful supply of roots.

How to deal with these rooted divided portions of the old plants is the next matter for consideration. Those which are well furnished with roots should be immediately planted in the prepared quarters already referred to in rows about 2 feet apart, observing a distance between the plants of about 1 foot. This will afford ample space for the plants to make good, useful specimens without being overcrowded. If the plants are made to alternate in the rows thus * * * * * * so much the better, as more space is gained ultimately when the plants need it. The method of planting outdoors is aptly portrayed in Fig. 4. Water in after planting, so that the soil may be nicely settled round the roots. We should have mentioned before that planting must be done in a firm manner. Propagation by cuttings is simple enough. Slips that are pulled off the old plants and having no roots are quite suitable. Decaying or seared foliage must be removed and the cuttings dibbled in forthwith in rather fine soil in rows 6 inches apart and a distance observed between the cuttings of about 4 inches. Make the soil firm at the base of each. The soil must be maintained in a moist condition during the rooting process. When rooted, the cuttings (young plants) should be planted as suggested for the divided pieces that were rooted. Fig. 3 is a good type of Sage cutting. The present is an excellent time to propagate the common Sage, and under conditions such as we have described we have no anxiety about the ultimate result. D. B. C.

MULCHES AND WHEN TO APPLY THEM.

The summer mulching of various plants is an important phase of English gardening, yet it is one that there seems to be a good deal of confusion over, more particularly in the minds of amateurs. At the outset of these notes it may be as well to consider the object of mulching during the summer months, and this may be briefly summed up in the following sentence: For the preservation of moisture in the soil and, in some instances, the providing of food for the plants. Then the substance of which the mulch is composed must be considered, and there can be little doubt that the best is short, partly decayed stable or farmyard manure. Even a mulch of fine soil will frequently be of considerable advantage. Having thus decided why mulching should be done and the best material for the work, we may now consider when the mulch should be applied and to what crops it is likely to be of especial benefit. There is no doubt whatever that the majority of mulches are applied far too early in the season, *i.e.*, before the soil has become thoroughly warmed by the sun, with the result that the roots are kept in a cold medium for a considerably longer period than they would be were the mulching material withheld for a time. Again, it is useless putting on a mulch to preserve moisture when the soil is in a comparatively dry condition. These two points fully grasped, the beginner is not likely to go far wrong; he will know that the mulch must not be put on until the soil is thoroughly warmed and well soaked with rain; just when this will be, of course, will depend on circumstances, but, generally speaking, a mulch is not required until June is in.

Next comes the question: To what plants may the mulch be given with advantage? Generally speaking, all newly planted trees and shrubs derive great benefit from a mulch intelligently employed, and the same remark applies to herbaceous plants where the soil is of a rather sandy character. Then there are such plants as herbaceous Phloxes, which naturally delight in a moist root-run, and these will very much enjoy any attention given them in this respect. Sweet Peas, too, will benefit from a good mulching of partly decayed manure. To whatever plants it is applied, however, it is wise to keep the manure from coming into actual contact with the stems; in many cases it may not do any harm, but sometimes serious injury is caused, and it is best to err on the safe side.

THE TOWN GARDEN.

Bedding-out.—The season has once more come when the work of bedding-out for the summer months must be attended to. This work is generally regarded very seriously by owners of town gardens, because so much depends upon the work being done well. The general appearance of the whole garden for several months to come may be good or bad, just according to the arrangements made at the present time. To satisfactorily fill a small border demands as much care and forethought as to deal with a very large one; indeed, it is often a more difficult matter. In the first place, it is advisable to make notes of the different stocks of plants in hand, and so ascertain how many must be purchased if certain designs are to be carried out or whether there are sufficient. Of course, if previous hints given in The Garden have been carried out, all the beds will have been well manured, so that at present it will be necessary only to level the surface of the soil and put in the plants.

Formal Bedding-out.—Where rather small beds have to be filled, to avoid a somewhat formal arrangement is not always possible; but where dwarf-growing subjects are grown chiefly, then the surface of the border must be raised more or less; more if the soil be clayey and not so much if it be of a light, sandy nature. For example, Violas and Pansies look best in beds which have been nicely raised; large borders filled with dwarf plants to form a carpet and tall ones as dot plants may have a perfectly level surface. If in some cases plants are scarce, edgings to small beds may be omitted; but in the others broad, bold edgings look well in large beds.

The First Plants to Put Out.—Pansies and Violas ought to be planted first and then Calceolarias. The latter rarely prove quite satisfactory if they are planted late in the season, especially if the soil be very light. Calceolarias are more hardy than is generally supposed by many amateurs, and they always succeed best if planted in their flowering quarters pretty early. Of course, it is not always convenient to plant them as early as one would wish where the beds are filled with spring-flowering subjects, but directly the latter are cleared away put in the Calceolarias. They are fine plants for town gardens, and grow well in any ordinary soil and in almost any position. A very hot one is the least suitable, but partially shaded beds and rather draughty places are more suitable for them than many other kinds of plants.

Hardening Tender Plants.—Continue the hardening process in the case of tender subjects, as by the middle of June every plant must be put out, and if duly hardened the most tender kinds will withstand the weather at that time. They ought to be exposed now, but be kept in a sheltered part of the garden.

Vegetable Marrows.—Not only are these plants useful, but they are ornamental, too. Being of strong constitution and rapid in growth they are very suitable for town gardens. There is no need of large manure-heaps on which to grow the plants; they often suffer much on the dry beds. The cultivator must dig out some soil, making a hole 18 inches deep and 3 feet across; then a portion—about half—of the original soil must be returned to the hole mixed with a similar quantity of well-rotted manure. A hot-bed is not necessary. Two plants may be put in each prepared bed, one being trained to the left and the other to the right. The best position is one where the sun will reach the plants during the greater part of the day. Vegetable Marrow plants may be trained on walls or low fences, where they will bear fruits freely and are really very ornamental. The soil must be prepared for the young plants just the same as when they are grown in an open border. If the beds are got ready now, the plants may be put out during the second week in June. Where a collection of the different varieties are grown, they prove very interesting. Hibberd's Prolific bears small, egg-shaped Marrows; Muir's Hybrid Prolific bears globular fruits about 6 inches in diameter; so also are the fruits of Pen-y-byd, the latter variety being very prolific. Long Green, Long White, Moore's Cream, Green Bush and White Bush are all splendid sorts bearing long fruits. Avon.

4.—ROOTED PIECES PLANTED IN THEIR PERMANENT QUARTERS.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Flower Garden.

TUBEROUS-ROOTED BEGONIAS.—Where these are used extensively for the embellishment of the flower garden it is very essential that the plants be grown sturdily and hard. They require a deep, well-manured soil, and the plants should be allowed a reasonable amount of room for development. During the summer months good soakings with liquid manure at intervals will add greatly to the growth and size of bloom.

Calceolarias may be put out on well-prepared beds; let the soil be well worked and a good supply of thoroughly decayed manure added.

Pansies are often in great request, and give a good display where the position and soil suit them. They thrive best in a cool, rich, deeply worked soil, and should be given a good mulching over and about the roots during the heat of the summer, with copious supplies of water during very dry weather. Sow more Sweet Peas and stake others as soon as the plants are high enough to need supporting. Stake Carnations before the flowers fall about and get damaged by coming in contact with the soil.

Sub-tropical Gardening.—Plants for this purpose need to be well hardened, so as to withstand the strong rays of the sun; otherwise the leaves quickly assume a sickly appearance. If the positions are suitable for this class of bedding, avoid formal designs.

Hardy Fruits.

Wall Trees.—Examine the borders of all fruit trees growing against south walls, and should water be required to moisten the roots and soil to a good depth, see that this is abundantly supplied. Go over all Peach and Nectarine trees, removing shoots not wanted and tying in those required to fruit next season before they get hard and brittle. Rub off any of the small fruits where they have set very thickly, so that others may be strengthened. Prevent overcrowding of the wood and heavy cropping, which are the cause of many trees failing to fruit regularly. Newly planted trees must not be overlooked. If the weather proves dry, attend well to the watering and mulching.

Pear Trees.—These may be gone over and the shoots growing outwards stopped. Some of the new wood which will not be wanted can be removed entirely and other growths shortened. An active man can do much of this work and go over a large number of trees in a few days.

Kitchen Garden.

Globe Artichokes.—Suckers taken from older plants a week or two ago and planted in clumps of threes, the clumps being 4 feet to 6 feet apart, should be kept watered till they have become well established; from these a capital supply of heads will be supplied and form a good succession to the older plants. I much prefer suckers to raising the plants from seeds. Attend to staking Runner Beans, Peas, and sow more seed for later supplies.

Green Crops.—If the land intended for the Brassica crops is not at liberty when the plants are large enough to be planted from the seed-beds, prick them off into nursery quarters to prevent a weak growth, and where club is troublesome do not let the young plants remain in the seed-beds longer than is necessary, as plants when left too crowded till they get drawn and the roots dry are, as a rule, more subject to club.

H. Markham.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

Indoor Fruits.

Vines.—In the early house fruit will now be changing colour, or perhaps approaching ripeness. As the former condition becomes apparent more air may with advantage be admitted, subject, of course, to outside influences, and a drier atmosphere maintained within the house. At night the top ventilators may be left slightly open, and after a few days the same can be followed with those below, thus providing a circulation of air, at the same time keeping a gentle heat in the pipes to assist in this, as well as to dispel moisture and prevent its condensation on the berries in early morning, to their after disfigurement. In late houses growth should be encouraged by closing the ventilators early and, at the same time, using moisture freely until the flowering period. In newly constructed houses with the overhead trellis 18 inches or more from the glass, tying down of the shoots may profitably be deferred until the fruit is set, as by then some degree of toughness is assured, and the risk of breakage at the point of junction with the rods is reduced.

Figs.—With the increase of sun-heat and the admittance of more air to the house, together with the greater expanse of foliage, abundant supplies of water at the roots will be required. Heavy syringings are helpful in this, as well as in keeping the plants clean. If the water supply is ample for all requirements, mulching to retain moisture may be dispensed with, as it is apt to encourage gross growth and consequent unfruitfulness; but rather than allow the plants to suffer for want of this essential element, covering the root surfaces with light, clean litter may decide between success or failure of the crop.

Strawberries.—To maintain the supply of fruit until the outside crop is ripe, it may be advisable to retard some of the plants in pots by placing them, when the fruit is set, in a north aspect, as behind a wall or hedge. Stimulants by way of liquid manure may be more freely applied than formerly, and a greater number of fruits may correspondingly be allowed to mature on each plant. Plants that have fruited and been hardened off may, if healthy, be planted in the open for producing another crop in autumn.

Kitchen Garden Department.

Celery.—Rich soil and sufficient moisture are essentials for this crop, and the well-known method of making trenches and placing manure and soil therein finds favour with cultivators in general. The practice, however, may vary according to situation and depth of good soil, for it is inadvisable to raise a crude subsoil so that it gets in contact with the roots; but the same heavily manured and turned over and exposed to the weather for a time if possible, makes an excellent stratum whereon to place better material to receive the roots. Single lines of plants in trenches 4 feet apart from centre to centre, are best and most conveniently managed; but if a third more space is given, two lines may be planted in each trench, thus allowing of more plants being grown upon a given area.

Summer Salads.—Lettuces are the principal for this, and to obtain these well-hearted and succulent, good soil and careful attention paid to thinning the plants in good time are necessary. For some time to come transplanting may be dispensed with. The ridges between Celery trenches are very suitable for Lettuces in hot weather; here the seed may be sown and the plants thinned, thus avoiding any severe check to growth. Corn-salad deserves more prominence than it apparently gets at present. Sown in a shady position it is soon ready for use, and many gatherings may be taken from the same plot.

James Day.
(Gardener to the Earl of Galloway.)
Galloway House, Garlieston, Wigtownshire.

NEW PLANTS.

Odontioda Vuylstekeæ crawshayana.—This is a remarkably bright and attractive flower, the blossoms being of good shape. The colour is an intense scarlet crimson, with the usual small yellow patch in the centre of the labellum. Shown by de B. Crawshay, Esq., Sevenoaks. First-class certificate.

Rhododendron Souliei.—This remarkably beautiful and distinct species was found in Western China at an altitude varying from 9,000 feet to 11,000 feet, the flattish, or slightly saucer-shaped, flowers being of a warm rose-pink hue and borne in close clustered heads. The exhibited example was a flowering specimen less than 1 foot high, the blue-green leaves constituting quite a distinctive feature. Seen in woodland places in the wild state the plant is said to reach 3 feet or more in height, while in the more exposed situations it is of a decidedly dwarf habit of growth. It is a welcome addition to this already important genus, and doubtless the newcomer will be in great request. Shown by Messrs. James Veitch and Sons, Limited, Chelsea. First-class certificate.

Primula bulleyana.—A lovely, interesting and valuable addition to the genus Primula, which, if not absolutely unique taking the genus as a whole, is probably quite so among purely hardy species. This newcomer is from Yunnan, where it was found at a great elevation by Mr. Forrest. Our first impression of this handsome species was that it was either an artificial or natural hybrid between P. cockburniana and P. pulverulenta, which would, of course, appear out of the question. The leaves are entire, about 6 inches long by 1 inch broad, and slightly crenate at the margin. The flowers are produced in whorls on the erect stems, the upper portion being of a mealy character, the entire inflorescence consisting of five or six whorls of the blossoms. In colour the latter are of an apricot orange, the tube and the buds prior to expansion being of a reddish tone. The plant is obviously a free-flowering one, and from the colour point of view and its vigour and perennial character promises to prove quite an acquisition. Shown by Bees, Limited, Liverpool. First-class certificate.

Rose Lyon.—A very handsome variety that should prove a great favourite, if only for its good forcing attributes, its fragrance and perpetual flowering. At first the buds are of coral red tone and the opening blossoms of a pink shade, which presently merges into the pale pink of the Enchantress Carnation. The flowers are full, globular and of large size. Shown by Messrs. T. Rochford and Sons, Broxbourne, and Messrs. Hugh Low and Co., Enfield. Award of merit.

Saxifraga decipiens Miss Willmott.—A further addition to the mossy section of Saxifrages, the large and well-formed flowers being of a blush pink shade, with somewhat deeper colouring at the base. It is obviously very free in flowering and very pleasing in effect. Shown by Bakers, Wolverhampton. Award of merit.

NEW FRUIT.

Strawberry George Monro.—This is the result of crossing Royal Sovereign with Sir Charles Napier, and is said to be a remarkably heavy cropper, producing fruits in abundance with the minimum amount of heat, thus proving of great value for pot work. In general appearance and flavour the fruits are very similar to Royal Sovereign and the leaves are not unlike this variety. Shown by H. Staples, Esq., Swanley, Kent. Award of merit.

All the above were shown before the Royal Horticultural Society on the 18th inst., when the awards were made.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends make* THE GARDEN *helpful to all readers who desire stance, no matter what the branch of gardening may and with that object will make a special feature of the nswers to Correspondents" column. All communica- s should be clearly and concisely written on one side he paper only, and addressed to the* EDITOR *of* THE RDEN, *20, Tavistock Street, Covent Garden, London, C. Letters on business should be sent to the* PUBLISHER. *name and address of the sender are required in dition to any designation he may desire to be used in the er. When more than one query is sent, each should on a separate piece of paper.*

FLOWER GARDEN.

Growing Stocks and Asters (*Joseph tts*).—There is little chance of your succeeding th these in the open air. The latter group ve no pretentions to hardiness, and at best ve to be regarded as half-hardy annuals. You ght try the Stocks, sowing the seeds in August early September, and by growing them very ily and cold, as in well-ventilated frames, make rge plants for putting out early or for flowering the greenhouse in April. Unless the plants e well managed, however, and pinched to retard e flowering, we fear that they would be of little e to you. If you have a small greenhouse just cluding frost, sow the seeds in January, and by owing the plants very hardily and allowing enty of pot-room you might succeed. In a atted-up frame the Asters would be almost re to rot away, and as these require to be own without check, or without being stopped, cannot recommend them for your purpose less you have a greenhouse at you disposal.

Plants for pond (*W. Surrey*).—If you ve planting room at the margin at A and B, u might with advantage arrange such subjects Primula japonica, Caltha palustris flore-pleno, e Royal Fern (Osmunda regalis) and its variety stata, together with Sedges, Rushes and other ings. At C, should a large plant be required, u might arrange Gunnera scabra or G. mani- ta, or even the Goat's-beard Spiræa (S. uncus). Where the plants are immersed in the ter, and the latter is not too deep, you would d the double-flowered Arrow-head a good nt, likewise Alisma Plantago or Butomus bellatus. Quite one of the best things for allow water or for marshy or wet ground uld be Iris Pseud-acorus or Saxifraga peltata, d there are some Grasses which would be of vice also. Just what you might plant will pend upon circumstances, and none of the ngs we have named is likely to become a isance or to overrun the place. It is one of se instances where someone competent on the t is best able to give information.

Perpetual-flowering Carnations (*Mrs. W.*).—As a general rule, these Carnations not grown on for another year, particularly en they have become thin and straggling. st cultivators prefer to keep up their stock by ans of cuttings struck early in the year. You y, however, if you particularly wish to save ur plants, shorten back any very long shoots d repot the plants for another year's growth. re must be taken not to overpot; that is to , if the plants are now in 5-inch pots, those nches in diameter will be quite large enough. other mode of treatment sometimes applied these Carnations is to plant them out of rs in a well-dug border for the sake of the wers that may be developed between the time planting and the frosts of autumn, and a good play is frequently secured from many varieties.

Violets diseased (*A. J. W.*).—The Violets are acked by the fungus known as Urocystis Violæ, one of the most destructive and disfiguring to the plants. Your plants are also very anæmic or pale-looking, a condition due, we imagine, to an impoverished condition of the soil, or to some local condition or circumstance of which we have no information. We do not think the position is at all to blame, though we do not regard it as an ideal one. You might give the ground a good dressing of soot and, before planting out, a free dressing of superphosphate of lime. For the disease use sulphide of potassium, half an ounce to two gallons of water, and syringe the plants once every ten days with the mixture.

Early Violets (*F. Cloake*).—We hardly realise what you mean by the "earliest single bloom," inasmuch as earliness is very largely a question of cultivation, method and general treatment. For example, by securing strong, unflowered runners in November, growing them in a cold frame all the winter and planting out in good ground early in April, very large plants are secured that give a much earlier flowering than those plants which are simply built up from divisions of the old plants after these latter have finished their flowering. Of these you send, (No. 1) The Czar is the earliest, but, as you know, it is a small flower when compared with La France or (No. 2) Princess of Wales. In your district, by the special treatment we have described, we should give a decided preference to La France or Princess of Wales.

Twin-flowered Violet for inspection (*H. S.*).—The Violet that you send is an example of fasciation, or the growing together of two stems, and although such freaks are comparatively common among some plants, they are not often met with in Violets. Such a specimen is worthless.

TREES AND SHRUBS.

Information about a shrub (*Ribes*). The straggling yellow-flowered shrub you refer to is doubtless Forsythia suspensa. It is not grown as a standard, but by cutting it well back each year after flowering you can obtain strong, upright shoots 4 feet in length, which blossom profusely. As you say, it can be grown in many ways. The dark-leaved, yellow-flowered shrub must be Berberis (Mahonia) Aquifolium; it thrives almost anywhere and is an excellent plant to place beneath trees. A good rich-flowered form of Ribes sanguineum is known under the name of atrorubens; another very good variety is splendens, while atrosanguineum is also good.

Shrubs and Roses attacked by caterpillars (*C. H. L.*).—I am sorry to say I do not recognise from your description the caterpillar which attacked your shrubs last year. If the means you employed were thoroughly carried out, you ought to be tolerably free from them this year. If your shrubs are again infested, please send up a specimen or two and I will give you the best advice I can about their destruction.—G. S. S.

Clearing a wood (*Kim*).—To clear your wood of undergrowth, all the smaller things ought to be grubbed up and burnt if not of any value. The strongest of the Elm suckers might be found to be of use for stakes if trimmed up. At all events, all the suckers ought to be trimmed off the old stumps; holes 1½ inches or 2 inches in diameter should be bored into the middle of the stumps and filled with common salt. You might also have a few of the main roots bared, bore holes in them and fill them with salt. This ought to kill the stumps. Weed-killer is a very dangerous thing to use for the purpose, and you would probably kill more trees than you intended to.

Treatment of Pyrus japonica (*Moor Hen*).—When this Pyrus needs pruning it should be pruned on the spur system—that is to say, you should encourage the formation of short growths on the main branches, for it is upon these that the flowers are principally produced, as you have already observed. You may wait a very long time before the stout shoots bear blossoms, and your most satisfactory plan will be to cut them away at once. If these long, vigorous shoots that you speak of form as it were a breastwork to the plant, we advise you to cut them off quite close. If, on the other hand, they are scattered over the surface of the plant, they may be cut back to within two or three eyes. You speak of the plant having no new wood if you cut off the vigorous shoots; but such removal would naturally throw more energy into the main branches and cause them to push out short-jointed shoots of medium vigour, which naturally form flower-spurs, especially if their points are pinched out during the summer.

ROSE GARDEN.

Tonk's manure for Roses (*E. B.*).—This manure is compounded as follows: Superphosphate of lime, twelve parts; nitrate of potash, ten parts; sulphate of magnesia, two parts; sulphate of iron, one part; and sulphate of lime, eight parts. Apply it in February at the rate of a quarter of a pound to the square yard of surface. When heavy rainfall follows, a second dressing may be given with advantage at the end of May, but this should be rather less in quantity. The manure should be hoed in, and, if possible, applied just before rain. This preparation is given in addition to the usual dressing of farmyard manure. This latter is essential to maintain the soil in a healthy condition, although it is not necessary to apply it every year.

Rearranging Rose beds (*S. S.*).—We think you are well advised in replanting your Roses, especially as they did not grow very well last season. When removing the soil, take it out to a depth of 2 feet and fork up the bottom. Put on this forked-up soil 2 inches or 3 inches of cow-manure, then some of the soil removed, following with another layer of cow-manure. The remaining soil should have some half-inch bones admixed with it, and it would be as well to add some fresh soil from another part of the garden, especially where vegetables have been grown. The whole should be made firm before replanting. When the plants are removed for replanting, trim over the roots, cutting away very long portions, also any jagged ends. Then dip the roots in some "puddle" or mud. Cut back growths before planting to about 6 inches of their base, and see that the roots are made firm when replanting. Afterwards go over the plants in about a fortnight and tread up the soil against them, choosing a dry day for this operation. We have pleasure in naming the order in which the Roses should be placed to conform with your idea as to colour, which we think will harmonise very well. Some of the strongest Teas we have kept in Bed A. Perhaps you could shield this bed from the cold gales by a belt of Penzance Briars or a few evergreen shrubs, or a trellis of wichuraiana Roses acts very effectively as a wind-break. We cannot make out the variety you are unable to decipher unless it be Mme. Thirion Montauban. The variety Dr. Rouges is more fitted for arch or wall, so also is Duarte d'Oliveira. This is the correct way of writing this name, not Merte d'Oliveira. We have added a few names to each colour which we think you should possess, and have marked them with an asterisk. For Bed A to B: Deep red, Duke of Albany, Eugène Fürst, *Commandant Felix Faure, *Charles Lefebvre, *Mme. V. Verdier and *Fisher Holmes; pink, Mme. E. Resal, Mme. L. Messimy, Caroline Testout and *Gustave Grünerwald; white, Kronprinzessin Victoria, Souvenir de la Malmaison, *Gloire Lyonnaise, *Antoine Rivoire and *Admiral Dewey; pink, Captain Christy, Homer, La France, Viscountess Folkestone, *Mme. Abel Chatenay, *Mme. Leon Pain and *Mme. Edmée Metz; red, Marquise de Salisbury, G. Piganeau, Ben Cant, General Jacqueminot, *Ulrich Brunner, *Hugh Dickson, *Dr. Andry and Earl of Pembroke. Bed C to D: Yellow, Dr. Grill, Princess of Wales, Jean Pernet, Le Progrès and *Mme. Hoste; orange, Aurore, Mme. Ravary, *Perle des Jaunes, *Mme. Charles, *Paul Ledé and *Lady Roberts; red, Princesse de Sagan, Pierre Guillot, Papa Gontier, Beauté Inconstante, Souvenir de R. Rambeaux, Lady Battersea, *Richmond and *General MacArthur; pink, Maman Cochet, Mrs. B. R. Cant, Mme. Lambard, Belle Siebrecht, Mme. Jules Grolez, Mme. de Watteville, Dean Hole and *Earl of Warwick; orange, *Mme. Falcot, *Prince T. Galitzine, *Lena and Instituteur Sirdey; yellow, Comtesse de Frigneuse, Gustave Regis, *Harry Kirk, *Sulphurea and *Marie van Houtte; white, Hon. Edith Gifford, Pharisaer, Mrs. M. Kennedy, *Mme. Antoine Mari, *Peace and Prince de Bulgarie.

THE GREENHOUSE.

Arum Lilies in greenhouse (*Mrs. B.*).—If the greenhouse is only "supposed" to keep out the frost and does not actually do so, the probabilities are that the frost got in and is, therefore, responsible for the mischief. This is the more obvious when viewed in conjunction with those you kept in a dwelling-room. The Arum Lily, while enduring low temperatures with comparative impunity, cannot endure frost, and the "rotted roots" emphasise the fact. Saucers of water for such things are quite right for the plants when in free growth, but are quite unnecessary and often harmful when constantly employed before that stage is reached.

Treatment of a Camellia (*E. L. Rielley*).—If your Camellia appears to be in fairly good health in June, you may place it outside in a position where it will get a little shade for two or three hours about midday. If, however, you have any doubts at all about its health, leave it inside. While it is indoors you will have more control over the watering and you can keep it syringed more conveniently, which will be an advantage. Should you place it out of doors, stand the pot on a piece of stone or slate, so that worms cannot enter by means of the hole in the bottom of the pot. Really healthy plants with good roots are benefited by having two or three months out of doors. Plants left indoors ought to be given all the ventilation possible, and both

top and bottom ventilators ought to be left open night and day during summer and early autumn. A fortnightly application of soot-water helps to keep the soil free from worms.

Woodlice in a greenhouse (*M. H.*).—Woodlice seek shelter during the day in any crevice or spot where they can hide themselves. Where it can be done without injury to the plants, boiling water should be poured into any place where they are likely to congregate. They may also be readily trapped by cutting Potatoes in two and scooping out some of the centre. Then lay these Potatoes with the hollow side downwards, and when examined next morning the woodlice will be found sheltering there, when they can be readily destroyed by dropping them into a bowl of boiling water. If these hollowed out Potatoes are laid on a hard surface, a notch or two must be cut in them in order to allow the woodlice to enter, otherwise they will be unable to do so. Another good means of trapping these pests is to take some small clean pots, then place in each a freshly cut piece of Potato and fill up with a little dry moss or hay. These pots must be laid on their sides in the most likely places and examined the first thing in the morning, when the pests found therein may be destroyed.

Information about Palms (*R. G. T.*).—The different Palms referred to in your letter are all natives of tropical districts, hence you cannot hope for any measure of success in attempting to raise and grow them in a greenhouse temperature. They need at least a structure in which a night temperature of 60° to 65° is maintained, and if the pots or pans in which they are sown can be plunged in a gentle bottom-heat, so much the better. A night temperature as above given would mean, of course, a rise of 10° to 20° during the day. In sowing seeds of Palms it will be found that germination is assisted if they are soaked for twenty-four hours previously in water at a temperature of 80° to 90°, but not higher. Whether pots or pans are used, they must be thoroughly, but not excessively, drained, and a suitable compost for Palms in general may be formed of loam, lightened by an admixture of leaf-mould, peat and sand. This compost must be pressed down moderately firm, leaving sufficient space to sow the seeds. A good guide for the depth at which they are to be sown is that the seeds are covered with soil equal to their own depth. After sowing, enough water should be given to keep the soil fairly moist, but the saturation stage must be avoided. When the young plants make their appearance, a good time to pot them off singly into small pots is as soon as the first leaf is developed, as if done at that time the roots start away into the new soil and do not feel the check of removal, whereas if left longer they are apt to experience a decided check, particularly those that form very stout roots, as some of them do. For their after-treatment these Palms need a warm, moist structure and shade from the direct rays of the sun.

Name and treatment of Orchid (*Mrs. E. J. P.*).—The name of the Orchid is Cœlogyne cristata. You will find directions for its culture in the prize essay on "The Six Most Popular Orchids and How to Grow Them," which was published in THE GARDEN for April 17.

Hippeastrums not flowering well (*G. H. G.*).—You have omitted two very important items in your question. First, you give us no idea as to the age of your Hippeastrums, or whether they have ever flowered before; next, nothing is said as to the size of the bulbs themselves or the pots they are in. The treatment seems quite correct, except that many cultivators do not now repot annually, and when it is done the operation is carried out directly after flowering. With increased age, size and vigour your Hippeastrums should all, or nearly all, flower another year. In any further questions please write on one side of the paper only.

Plants for a greenhouse (*Mrs. J. F.*).—We assume that you need your greenhouse to be as gay as possible throughout the year, and consequently you require a selection of flowering plants. For clothing the wall at the back there is nothing to equal Camellias, as the foliage is so handsome throughout the year, and during the flowering season they are, of course, additionally attractive. The one drawback is that they are of rather slow growth, and consequently take some time to effectually cover a wall. If this is an objection, a white Abutilon (Boule de Neige), a yellow one (Golden Fleece), a red Habrothamnus (fasciculatus or Newellii) and the yellow-flowered H. aurantiacus would quickly cover the wall and flower freely. For the roof you have the choice of the white and red Lapageria, Passiflora Imperatrice Eugenie, Tacsonia Van Volxemii, Lantana salvæfolia, Hibbertia dentata, Clematis indivisa and any of the loose-growing, medium-flowered Fuchsias. It will be an easy matter to keep such a structure gay during the summer, for plants suitable for this purpose will soon be purchasable at a cheap rate. Of the long list of plants available for such a structure, mention may be especially made of the numerous forms of Pelargoniums, Fuchsias, Cannas, tuberous-rooted Begonias, Achimenes, Campanulas, Gloxinias, Lantanas, Lilies and other subjects. These will keep on until the autumn, when Chrysanthemums, Salvia splendens and the blue-flowered S. azurea grandiflora will serve to keep the structure gay. For the winter and early spring display we cannot do better than refer you to THE GARDEN for December 19, 1908, in which is printed the first-prize essay on "Flowers for a Small Greenhouse in Winter." The subject is there dealt with far more exhaustively than it would be possible for us to do in the space devoted to "Answers to Correspondents."

KITCHEN GARDEN.

Manchurian Oil Beans (*Robert Bunell*).—It is quite probable that the Beans you refer to are the seeds of Glycine hispida, though it is not possible to be certain without seeing and comparing them with typical Beans. They are also known as Soy Beans and are, at the present time, a considerable article of commerce. Glycine hispida is an annual which is grown largely in China, Japan and India. It may be grown in English gardens under similiar conditions to culinary Beans or Peas, but it is doubtful whether it will find favour as a vegetable. Its chief uses are as a cattle food and as a basis for sauces, though, doubtless, in times of scarcity it would form a valuable food product. Quoting from the Kew Museum Guide in reference to this plant: "In China and Japan, a kind of cheese or curd cake is prepared know as 'Natto.' The chief products of Manchuria are Bean oil and Bean cake. The seeds yield 17 per cent. of an edible oil obtained by expression, and the residue is made into large circular cakes, weighing about 60lb., used in the East for feeding cattle and also as a manure. Soy is imported into Europe in barrels and is said to form the basis of most of the popular sauces."

Measurement and heating of a Mushroom house (*A. L.*).—We think that a house 15 feet long by 10½ feet wide (inside measure), 9 feet high at back and 8 feet high in front, would be likely to meet your requirements. The bottom part under the first tier of beds could be used for forcing Rhubarb and Seakale, leaving room then for two tiers of beds round both sides and two ends, excepting where the door is fixed, which should be in the middle and made wide enough so that a barrow-load of soil or manure can be tipped inside the house if necessary. The beds should be 3½ feet wide and 11 inches deep, and there should be 18 inches clear space between the top of the bed when formed and the bottom of the next. In forming the bottom tier of beds, bear in mind to leave a fair space for the Rhubarb and Seakale to grow. The fittings for supporting the beds should be made of cast-iron, and you would be well advised to place this part of the work in the hands of a horticultural builder or someone who knows how the work should be done. We prefer that the bottom and sides of the beds should be formed of boards. Mushrooms do not like much fire-heat. Two 4-inch hot-water pipes starting at the corner next the boiler and running round the house until they came to the doorway, where they could be dropped into the return pipe, would be quite enough. The pipes should be fixed by the side of the lower tier of beds on the path-side and supported by iron brackets from the pillars supporting the beds. A skylight must be provided in the roof to open when wanted. The walls should be built thickly, 13½ inches if possible, and the roof covered with Heather or straw thatch in order not only to keep the house warm in winter, but also cool in summer.

Young Tomato plants dying off (*G. T. B.*)—Judging by your description, we conclude that your young seedling Tomato plants are suffering from an attack of the Tomato or Potato disease. There can have been nothing wrong, we think, with the seed; certainly there is nothing wrong in the soil in which the plants are potted. It is seldom the disease attacks plants in so young a state. The only occasion we can call to mind where this has been the case is when the young plants had been packed too close together, where little or no air could circulate among them, the temperature also in which they grew being too cold and damp. The best thing you can do is to cut the stems of the plants below where they are affected. If the stem below the cut is unaffected, another growth will soon start from the base of the plant. But if you find after cutting that the stem is diseased below the cut, the best thing to do is to immediately burn the plant, and either sow more seed or procure a healthy stock from some other source. The healthy plants left should be placed on the shelf of a greenhouse, or some other structure where there is a little warmth and plenty of air. With careful attention to watering and to potting, if they want it, they will soon come round and make good plants again.

Tomato leaves for inspection (*F. J. C.*).—There is no fungus present, and the few green flies are not accountable for the variegation, which appears to be constitutional and through which none of the deeper-lying tissues is affected. The plants may be watered now and then with a weak solution of potash sulphate, and this may help them.

Growing Beans in pots (*Miss A. K. M.*).—The pots for the French Beans must be three-parts filled with compost and the seeds buried nearly 2 inches deep. When the resultant plants are about 7 inches high, more compost must be put in so as to fill the pots to within 1 inch from the top. This will act as a mulch and greatly assist the plants. Strongly sprouted Potato "sets" must be used; then the growth will be early.

MISCELLANEOUS.

Black Currants (*W. J. P.*).—The white appearance on the buds of the Black Currant is not due to the presence of any parasite, either insect or fungus, but that of numerous hairs, which have become filled with air and are, no doubt, characteristic of the variety.

Can Scarlet Runners and French Beans compete as two distinct exhibits in a collection of vegetables? (*C. L. N.*).—We believe the two to be distinct in the same way that Cos and Cabbage Lettuce or Broccoli and Cauliflower are distinct, and consider that both may be shown as distinct dishes in a collection. There is no authoritative rule bearing on the subject, and some judges might decide differently; therefore you will be well advised not to include the two in any collection if it can be avoided. The probabilities are that reduced points would be given to each dish as being too much alike, making the total of points about the same as one good dish of either would receive; better substitute something else, even if less choice. In classes for single dishes there is generally one for Scarlet Runners and one for French Beans, confirming our contention that the two are distinct.

Names of plants.—*M. C. Havard.*—Hoya carnosa. Cut out dead wood only.——*D. M.*—Sanguinaria canadensis.——*L. B. Wittier.*—1, Saxifraga muscoides Rhei; 2, S. cæspitosa hirta; 3, S. muscoides variety; 4, S. Geum dentata; 5, S. Wallacei; 6, S. hypnoides variety; 8, S. Geum elegans; 9, S. G. crenata; 11, S. cuneifolia subintegra; 12, S. muscoides atropurpurea; 13 and 16, forms of S. hirsuta.——*F. W. C.*—Staphylea pinnata.——*Gisburn.*—1, Cotoneaster horizontalis; 2, Jasminum officinale; 3, Amelanchier canadensis; 4, Cornus alba Spæthii; 5 and 6, Pernettya mucronata.——*G. J. Ips.*—1, Ruscus aculeatus; 2, Salix Caprea.——*P. G. D. S.*—Chelidonium majus (Celandine).——*T. Cleghorn.*—Tulip elegans alba.——*W. H. Stabler.*—Rose Liberty.——*L. Taylor.*—The yellow flower is Kerria japonica flore-pleno. The other is too shrivelled to identify.——*B. T. G.*—Helianthemum vulgare variety; Eranthemum Portellæ.——*D. Vawdrey.*—1, Epimedium pinnatum; 2, Staphylea colchica; 3, Scilla campanulata (one of the many forms).——*R. N., North Devon.*—Begonia semperflorens; Fuchsia bacillaris.——*E. Bryant.*—1, Ribes aureum; 2, Lonicera involucrata.——*Duncom.*—Pink Cherry is Prunus H. J. Veitch. The other is too far gone to name accurately.——*W. M.*—Scilla hispanica (S. campanulata).——*S. V.*—1, no specimen; 2, Fritillaria Meleagris (the Snake's-head); 3, Yucca filamentosa; 4, Carex acuta.——*F. E. Stokes.*—1, Gentiana acaulis; 2, Panax fruiticosum var. Victoriæ; 3, Codiæum variegatum Von Oerstedi; 4, C. Wiesmannii 5, Peperomia argyreia; 6, Pteris longifolia.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C

NEW PLANTS AT THE TEMPLE SHOW.

Odontoglossum mirum Emperor of India.—A beautiful large-flowered variety of good shape, the petals being rather wider and more fringed than the sepals, which, however, are more pointed. The latter are of a clean, dull crimson hue, the petals being slightly marbled white, all the segments being edged white also. The labellum is similar and has the usual small yellow cushion.

Odontoglossum Princess Victoria Alexandra.—This is quite the purest and prettiest member of this family we have yet seen. All the segments are remarkably regular in outline, the deep blood red colour not being sullied in the least, its purity being enhanced by the narrow and regular white margin. The petals and labellum are prettily fringed, and altogether it is an Orchid to be proud of.

Odontoglossum Aglaon.—A very refined-looking flower of dull purplish mauve colouring, this being mottled and marbled with varying shades of white. The flowers are large, the sepals and petals being rather acutely pointed. All the above were shown by Mr. C. Vuylsteke, Loochristi, Belgium, and each received a first-class certificate.

Lælio-Cattleya Eurylochus.—A very rich member of this bi-generic race, and although the flowers are rather small, this is more than compensated for by the remarkable colour combination. The sepals are rather narrow and pointed, the petals being about twice as broad, the colour of both being a rich reddish apricot, this being rather the deepest in the sepals. The labellum, which is comparatively large, is of a rich velvety crimson colour, the outside of the throat being rich yellow. The plant exhibited had four well-developed flowers. First-class certificate.

Oncidium Charlesworthii.—A very richly coloured flower that is most difficult to describe. The sepals and petals are rich brown in colour, this being lightly mottled with yellow, the large labellum being the same with the exception of the good-sized bright yellow patch at the base. The plant had one large raceme composed of twelve fully developed flowers. First-class certificate. Both were shown by Messrs. Charlesworth and Co., Hayward's Heath.

Cattleya Mossiæ Gatton Park variety.—A large and deeply coloured form of the well-known Mossiæ, the labellum being prettily marked with crimson and yellow. Shown by Sir Jeremiah Colman, Bart., Gatton Park, Surrey. Award of merit.

Sigmatostalix Eliæ.—A very small-flowered Orchid of botanical interest only. The labellum is the only conspicuous part of the blossom, this being fan-shaped and yellow, thickly dotted over with reddish brown spots. Botanical certificate.

Oncidium retermeyerianum.—A very small-flowered form of this race, the sepals and petals being a light reddish brown and the labellum dull crimson. Botanical certificate. Both the above were shown by Mr. J. Birchenall, Alderley Edge, Cheshire.

Bulbophyllum lemniscatoides.—A very curious little member of this family. The plant shown had two inflorescences, each forming a sort of enlarged pendulous catkin, each tiny black flower having three thread-like appendages and the whole clustering round a central column, the inflorescence being supported on a long, upright, slender stem. Botanical certificate.

Gongora quinquenervis.—This is a remarkable and striking flower, the dull yellow ground colour being heavily striped with chestnut brown bars placed crossways. Two comparatively large segments stand upright like pointed ears, the pouch and labellum being also of a weird character. A flower that defies description. Botanical certificate. The two plants were shown by Sir Jeremiah Colman, Bart., Gatton Park, Surrey.

Rose Coquina.—A charming pure white single-flowered Rambler, virtually a single white Hiawatha, which may be better imagined than described. Shown by Messrs. William Paul and Son, Waltham Cross; and Hobbies, Limited, Dereham.

Rose Margaret.—A delightfully full and shapely Hybrid Tea Rose of much the same colour as Mme. Abel Chatenay, and not unlike Queen of Spain in shape. The flower is of large size. Exhibited by Messrs. William Paul and Son, Waltham Cross.

Rose American Pillar.—A single-flowered variety of resplendent beauty and large size, producing immense clusters of bloom. The colour is deep rose pink, the base of the petals being white. A very striking variety that is bound to become popular. Shown by Messrs. Cannell and Sons, Swanley.

Rose Jessie.—A double-flowered variety of the Polyantha class, the colour being clear bright crimson and the habit branching yet compact. A very free and continuous bloomer. Exhibited by Messrs. H. Merryweather and Sons, Limited, Southwell.

Rose Mrs. Taft.—A Polyantha Rose, the flowers of which are rose pink, very double, and produced in great profusion. From Messrs. Hugh Low and Co., Enfield.

CARNATION CAROLA.—A perpetual-flowering variety of the largest size, the blossoms being produced on long, stiff stems. The colour is maroon crimson and the petals slightly lacerated. The flowers are strongly Clove-scented. A good advance on existing varieties. From Mr. C. Engelmann, Saffron Walden.

BEGONIA PINK PEARL.—A double-flowered variety of much excellence, the blossoms being of the largest size and of an exquisite clear salmon hue. A most lovely shade of colour. From Messrs. Blackmore and Langdon, Bath.

FICUS AUSTRALIS VARIEGATA.—The exhibited examples of this novelty suggested a dwarf-growing, small-leaved variety of F. elastica, the leaves, which are of creamy yellow variegation, possessing much of the substance of the old species. From Messrs. Sander and Sons, St. Albans.

PTYCHORAPHIS SIEBERTIANA.—A pretty and graceful Palm after the style of Geonoma gracilis or one of the Arecas. From Messrs. Sander and Sons, St. Albans.

CHRYSANTHEMUM FRUTESCENS WHITE PERFECTION.—A pure white variety of the Marguerite type, having a flattish Anemone or quilled centre. From Messrs. G. and A. Clark, Limited, Dover.

IRIS HYBRIDA SIR DIGHTON PROBYN (I. pallida dalmatica × I. iberica).—A very handsome and showy plant of good stature and considerable merit. The standards or erect petals are coloured a rosy mauve and faintly though freely lined with white. The purplish crimson or reddish falls are of a large size and are rendered more conspicuous by a signal or blotch of dark velvet colour. The style-branches are coloured a rich brownish crimson, which renders the variety very conspicuous. The variety, too, is possessed of a fine habit, and this largely partaking of I. pallida will render it most welcome for the decoration of the garden. From Mr. Amos Perry, Enfield.

IRIS HYBRIDA SIR TREVOR LAWRENCE (I. pallida dalmatica × I. iberica). The standards and falls are coloured a rather deep rose-mauve shade, the former being heavily pencilled to the outer edges of the flower, and the latter heavily and profusely veined about the base. This and the preceding kind are both handsome, and were raised by the late Professor Foster of Cambridge. From Mr. Amos Perry, Hardy Plant Farm, Enfield.

Each of the foregoing received an award of merit.

PRIZES FOR READERS. JUNE.

THE PRINCIPAL INSECT FRIENDS AND FOES OF THE GARDEN, AND THE BEST MEANS OF EXTERMINATING THE LATTER.

A First Prize of FOUR GUINEAS,
A Second Prize of TWO GUINEAS,
A Third Prize of ONE GUINEA,
And a Fourth Prize of HALF-A-GUINEA
are offered for the best essays on the above subject.

The notes (restricted to 1,500 words) must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, W.C." The essays must reach this office not later than Wednesday, June 30. Both amateur and professional gardeners may compete, but it is hoped that those who contribute regularly to the pages of THE GARDEN will not do so. The name and address of the competitor must be written upon the MS., and not upon a separate piece of paper. The Editor accepts no responsibility for and cannot undertake to return the MSS. of unsuccessful competitors. The Editor's decision is final.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

June 8.—Royal Horticultural Society. Exhibition of Flowers, &c., 1 p.m. to 6 p.m. Lecture at 3 p.m. by Rev. Professor G. Henslow, V.M.H., on "Some Old Superstitions about Plants." Admission, 2s. 6d. Royal Horticultural Hall, Vincent Square, Westminster.

June 9.—Royal Cornwall Show (two days).

June 16.—Grand Yorkshire Gala (three days).

June 28.—Isle of Wight Rose Society.

The Dean Hole Medal.—At a general committee meeting of the National Rose Society, held on May 18, the Dean Hole Medal was, by unanimous vote, awarded to the Rev. J. H. Pemberton, on account of his work, "Roses: Their History, Development and Cultivation," which was published last year by Messrs. Longmans, Green and Co. This medal is awarded from time to time to those who have rendered service in forwarding the culture of the Rose, and we think it could not have been awarded to anyone better on the present occasion.

Sale of Orchids, Carnations and other plants.—Messrs. Wilson and Gray, auctioneers, of Mount Street, Grosvenor Square, W., have been instructed to sell the collection of Orchids, Carnations and other plants which belonged to the late Mrs. Goddard of The Elms, Crawley, Sussex, where the sale will take place on the 21st inst. We understand that catalogues can be obtained from the auctioneers.

The Isle of Wight Rose Show.—This will take place at Newport on June 28 next, and a fine display of flowers is anticipated. That enthusiastic rosarian, the Rev. G. E. Jeans, is the hon. secretary, Shorwell Vicarage, Isle of Wight.

Carnations at the Temple Show. In our report of the Temple Show published last week we omitted to mention the beautiful group of perpetual-flowering and Malmaison Carnations staged by Messrs. Hugh Low and Co. of Enfield. This was an exceedingly pretty arrangement, baskets filled with the flowers being suspended from semi-arches and festooned with Smilax. Then large vases were placed on pedestals and shorter ones stood beneath, the whole being very effective. The new Black Chief, King Arthur and all the better standard varieties were shown in good condition.

Rhododendrons at Regent's Park.—The annual display of Rhododendrons arranged by Messrs. John Waterer and Sons, Limited, of Bagshot, Surrey, is to be opened this week at the Royal Botanic Gardens, Regent's Park, and will remain on view throughout the month. This exhibition of Rhododendrons is always well worthy of inspection, and tickets of admission can be obtained free by writing to the firm at the address given above.

Mr. E. H. Wilson.—It was a pleasure to see Mr. Wilson once again in the Royal Horticultural Society's Hall, after his third visit to China for the purpose of collecting plants. Mr. Wilson is a young man who has proved himself worthy of the trust placed in him by Messrs. James Veitch and Sons, Limited, and Professor Sargent. He is worthy of all honour; a man of great knowledge, resource, and possessing the great virtue, in spite of his successes, of not proclaiming aloud his remarkable enterprise. The plants he has collected are in many gardens, and are becoming in many instances the greatest treasures that surround the English home.

The Kew Guild Dinner.—The annual dinner of the members of this Guild was held at the Holborn Restaurant on the first day of the Temple Show, Dr. L. C. Burrell, M.A., presiding. Previous to the dinner the annual meeting was held, about thirty members being present. The chief discussion centred round the resolution adopted at the last meeting in regard to the Journal, for which it was stated a large majority of the members had voted. As a result of this voting the following members of the committee decided to resign: Messrs. W. Dallimore, H. Spooner, W. Hales, W. N. Winn (secretary) and H. H. Thomas, the treasurer. It was decided to ask them to reconsider their decision, but in the event of their not doing so, Messrs. Raffil, Hutchinson, Mayhew and Cole were asked to fill the vacancies.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Exhibiting Roses.—The time of year when all exhibitors of the Queen of Flowers look forward with anticipated additions to their laurels of last year is fast approaching, and to assure success immediate attention must be given to the Rose trees. In my own garden maggots have already commenced their havoc upon the young shoots, and are easily traced by their indentations on the foliage and destroyed by hand-picking. Green fly will also soon put in their appearance, and must be destroyed by frequent use of special mixtures for the purpose. Thinning, too, is another important point which must not be overlooked. By thinning I mean the removal of all weak or blind shoots; but from experience I have found that it is better to do this at different periods, otherwise if too much growth is removed at one time root action is liable to receive a violent check. Now is also the time to see that our equipment for the wars of the Roses is adequate. When showing under National Rose Society's rules, it is necessary to have regulation-sized boxes; so when one is increasing this part of one's equipment it is only a matter of forethought to have the correct article, assuming one is sufficiently ambitious to show under these rules. Particulars of measurements will be found in the society's schedule, which may be obtained from the hon. secretary, Mr. Edward Mawley, Rosebank, Berkhamsted, Herts. For protecting blooms against the frequent inclemency of the weather it is necessary to use shades, and for this purpose West's patent is undoubtedly the best, being cheap, lasting and easy to manipulate. The price is 1s. each or 9s. per dozen, which includes a stick half an inch square and 4 feet long. If it is difficult to obtain these from local nurserymen, they can be procured from any of the leading Rose-growers complete and ready for use. Then it is necessary to have tubes for the boxes. I consider the Frank Cant patent is far away the best, being a great improvement on any other I have ever used. These tubes are made with a half-inch flange; therefore they will fit any tube hole, and are held in position by four tacks. The blooms are thus held firm and upright, and cannot be bruised during transit. Another great advantage in this tube is that it is made in two separate cylinders; the inner cylinder holds the water, flower and label, and may be raised above the moss 4 inches if desired, but the stem of the bloom still remains the same depth in the water, a distinct advantage on a hot morning. A sample tube may be obtained from the inventors, Frank Cant and Co., Braiswick Rose Gardens, Colchester, for nine penny stamps, when its good qualities will be more easily observed. I think there is every prospect at present of a good Rose season, although the old adage, "As many frosts in March so many in May," is proving very true this year.—ENTHUSIAST.

Cheiranthus Harpur Crewe.—Herewith I send you two flowers, one of them the common (in gardens) Erysimum cheiranthoides, said to be wild in places in this country, and known by the names of Treacle Mustard (Hooker,

"Students' Flora," 1878, page 29) and alpine Wallflower. The other is a plant which I believe is known in the trade as Cheiranthus Harpur Crewe. I had the plant originally some forty years ago from my old schoolfellow and, later, friend, the late Rev. H. Harpur Crewe, and have kept up the stock ever since. It resembles a small double yellow Wallflower, but its compact, dwarf, bushy habit, distinct and much fainter scent and smaller flowers have always caused me to doubt it being a form of Cheiranthus Cheiri, and I am now convinced that it is a double form of Erysimum cheiranthoides.—A. O. W.

Cotoneaster angustifolia.—I think Mr. Arnott's experience of this much over-rated plant is quite general. A specimen was ordered after it received an award of merit and was duly planted against a south-west wall, which it soon mounted and now reaches the top, which is 10 feet high. Very late last summer it set a considerable number of berries for the first time. These were all killed by the frost long before they were fully grown, and herein, I think, lies its uselessness as an ornamental wall plant. I do not think it will set its fruits early enough to ripen before frost comes and destroys them; at any rate, if it is to be of any value in this part of Gloucestershire, it must be planted in the most sheltered spot that can be given it. We have it planted on an east wall also, but here all the newly formed growth has been entirely killed by the late severe frost, and I think it will be quite useless in such a position. No fault can be found with the amount of growth it makes each year, as this has been at the rate of 2 feet or 3 feet, and I think it is almost too early to say much about its fruiting capacity. Probably when a little of its exuberance of growth has been spent, it will settle down to fruiting freely; but this will be of small value if produced too late in the summer to ripen. Of course, in a mild winter it would no doubt ripen well, but I fear it can never approach Cratægus Pyracantha Lelandii as an ornamental wall plant.—T. A., *Cirencester*.

Daffodils growing wild.—I enclose a photograph, taken by myself ten days ago, of Daffodils growing wild in the grounds here. Seeing one in a recent number of THE GARDEN has made me think you might care for it for your paper. This is a single Narcissus, and our gardener thinks it is called bicolor Empress, though to me it seems pretty much self-coloured and a most delicate bright yellow. The grounds here are full of trees, and as it is a very old place, these Daffodils must have been spreading for years.—MARGARET F. SMITH, *The Yair, Selkirk*.

COLOURED PLATE.

PLATE 1375.

SOME OF THE NEWER STRAWBERRIES.

DURING the past few years considerable additions have been made to these fruits, and I will in this article note some of the newer varieties. So recently as May 18, the Royal Horticultural Society gave an award of merit to a new one named George Monro, on account of its good forcing properties. As shown, it was certainly an enormous cropper, and evidently one that comes to maturity very quickly, as the plants referred to had not been hard forced. The parents were the well-known Royal Sovereign and the older but good Sir Charles Napier. The introduction of the popular Royal Sovereign by Messrs. Laxton of Bedford was an immense boon to growers, as it is unequalled for forcing and general culture, and is now the most popular Strawberry grown. I take a great interest in this variety, because it was first exhibited at the Gardening and Forestry Exhibition in 1893, when it came under my notice, and, observing its splendid qualities, I secured the first stock sent out from the growers and exhibited it the following year at one of the Royal Horticultural Society's spring shows. This year the Royal Horticultural Society had a trial of forcing Strawberries at Wisley, and Royal Sovereign came out first for crop and good quality.

I now come to the newer varieties shown in the accompanying coloured plate. Laxton's Cropper was introduced in 1907, and is, I think, of special merit. It may be termed an improved Fillbasket, as it has the cropping qualities of that variety but is of a darker colour, the fruits more solid, and the quality superior. The fruits may be termed above medium size, and it is a splendid midseason variety; it should prove a good one for market. I consider it one of the best for planting out in frames, as it is such a heavy cropper, and even the small late fruits swell up freely.

The Bedford, another new variety, is less known than its merits deserve; it must not be confounded with Bedford Champion, a larger and softer fruit. The Bedford is, in my opinion, one of the best of the Laxton introductions. It is a midseason variety, and claims as parents that excellently flavoured Strawberry Dr. Hogg and the well-known Sir Charles Napier. It has

WILD DAFFODILS IN GRASS.

the rich flavour of the first named and the splendid colour of the latter. It is of robust habit, and is noted for its splendid cropping qualities.

Doubtless as regards flavour the new Epicure, one of the varieties illustrated, will become a general favourite, as British Queen and the free-growing Fillbasket are its parents. It has always been the aim of Strawberry specialists to get the British Queen flavour with better growth, and certainly in Epicure this has been achieved. The fruits are firm, medium sized, in shape bluntly conical, and the plant will grow where British Queen fails. It is in season about the same time as the older favourite. Pine Apple, a smaller fruit, will, I think, find favour. This is more like British Queen in shape than the others, but is very distinct. Connoisseur promises to be a good fruit of the Scarlet Queen type, and Progress, a late fruit, will, I think, be most valuable for its lateness and good quality.

As regards late Strawberries, no one who has grown Laxton's Latest, a cross between Latest of All and Waterloo, will deny its excellent good qualities. Givon's Late Prolific is a variety that was given an award of merit some years ago by the Royal Horticultural Society for its good quality and lateness combined, and it still holds its own. The parents were Waterloo and Latest of All; the fruits are very fine, dark red, wedge-shaped and firm. My remarks will not be complete unless I just touch upon the newer Perpetual type. With these and forced fruits we can now, without any great effort, have ripe Strawberries from March to November, and the Perpetuals are grown at a small cost, as they finish well in the late autumn months in a cold frame and may be grown close together, as the growth is compact and they fruit freely. The first of this type, St. Joseph, a smaller fruit than the newer ones, was a remarkable introduction, and even now is worth room in all gardens for a late summer crop. There is now St. Antoine de Padoue, a much larger form of St. Joseph, and therefore more valuable. It is a grand autumn variety, and if the plants are grown for succession, by picking off the earliest blooms and being well attended to as regards food and moisture excellent fruits may be had in the open from August to September, and with cold-frame protection much later. Louis Gauthier is excellent; it is a creamy white fruit, and some may object to its colour; but it is well flavoured and rich for a late fruit. A new addition to the Perpetual type is the Laxton Perpetual; this is very distinct and a large fruit in addition; indeed, it compares favourably with the ordinary summer varieties. It is the result of crossing St. Joseph with the large Monarch, and the result is a wedge-shaped fruit, deep red all through the flesh and sweet.

As regards culture, much better results follow when the plants of any type are not allowed to occupy the soil too long, and, like many other things, I have found new stock a great gain at times. With a poor, thin soil resting on gravel the Strawberry plant soon weakens, and in such soil I had a much better return from what may be termed annuals. Only one crop was taken, but if labour is scarce the plants may be given a second year. By making beds yearly splendid fruits resulted; but this does not apply to all varieties, some of the Pine-flavoured family doing better the second year, also those which are none too vigorous. Deep culture and ample food, even in poor land, will give good results if such as Royal Sovereign, Cropper, Reward and Givon's Late Prolific are grown, planting good runners early and not growing them too long in one place. G. WYTHES.

THE FRUIT GARDEN.

THE GRAPE VINE AS A HARDY WALL CLIMBER OUT OF DOORS.

A SHORT note on the above subject was written, giving details of how to form the border, plant, &c., in THE GARDEN of November 28, 1908 (page 580). At the same time a promise was made to revert to the subject again, giving details of the spring and summer culture and pruning. It was then recommended that the small Vine (of one stem) should be pruned back to within three buds of its base; these buds have now started into growth. The best form of training for the outdoor Vine, I think, is that commonly known as the "gridiron" pattern, as shown in the sketch on page 276. Two only of the basal buds are wanted to form a foundation for a tree of this description; but it is always well to leave three at the winter pruning, in case of an accident to one, until the two permanent shoots which emanate from the lower buds are safely secured, when the third may be rubbed off and dispensed with as having completed its function. These two shoots on either side of the Vine will, if all goes well, each make growths from 3 feet to 4 feet or more in the course of the season. When winter pruning time comes round (early in November), each of these shoots should be pruned back to within 2½ feet of its base. The shoot from the bud at the extreme end of the Vine after pruning must be trained

in a horizontal direction, for the purpose of extending the Vine laterally as far as is desired. I think that six of the vertical rods are sufficient for one Vine. These should be 2½ feet apart. A single Vine will then in time cover a wall space 12½ feet in width. If the wall is more than 12 feet high, it will be better to confine each Vine to four vertical rods instead of six.

The shoot which will emanate from the second bud, the one immediately next to the extreme end bud before mentioned, must be trained upright in order to form the vertical rods of the Vine. These upright rods at the winter pruning must each be pruned back to within 2 feet of their base (meaning from the bud from which they emanated in the spring), and the same process carried out each year until the allotted space is completely furnished with fruit-bearing wood. Having endeavoured to explain how the framework of a Vine trained in this way may be formed, a word may now be said regarding the spring and summer treatment of the Vine, which, if attended to in time, is most simple and entails little or no labour in the carrying out.

The side shoots which are growing out of the vertical rods, and which are the shoots which

bear the Grapes, should be 1 foot apart. The bunch of Grapes on these shoots generally follows the second or third leaf immediately the shoot has made one leaf beyond the bunch; then the shoot must be stopped (meaning pinching off the end of the shoot with the finger and thumb). This stopping of the extended growth of the shoot will result in side shoots being formed, which are called laterals. These in their turn should be stopped at their second leaf and all similar subsequent growth which may be formed during the summer. Timely attention to this work prevents the Vine being overcrowded and exhausted by useless leaf-growth, and helps to throw vigour into the crop of Grapes. If time permits, a copious syringing of the Vine about 4 p.m. after each warm day will do much to keep it in good health and also free from red spider, which is its greatest enemy. It should receive an occasional watering in dry weather during summer, say, once every fortnight or three weeks; and another important point to observe is the placing of a mulch of rotten manure 4 inches deep over the surface of the soil as far as the roots extend. This prevents the soil from drying too quickly by evaporation, and is a fertile medium for the new fibrous roots which form in the summer in such large numbers to root into and which help so greatly in nourishing the Vine.

OWEN THOMAS.

THE GREENHOUSE.

THREE CLIMBING GROUNDSELS OR SENECIOS.

THE genus Senecio is a very extensive one, there being upwards of 900 species. These vary greatly in character, among them being annuals, perennials and shrubs, many of which require a stove or greenhouse temperature for their successful cultivation in this country. Three of the most interesting and ornamental members of the genus, all of which are climbers and flower freely during winter and early spring, are enumerated below. The best known of these is

Senecio auriculatissimus.—This plant has been cultivated in our gardens for about twenty years. It is a native of British Central Africa, and was first discovered by Mr. J. T. Last in 1887. The plant is a very easy one to grow, thriving in a loamy soil to which a little leaf-mould and sand should be added. The leaves are bright green and the flowers golden yellow. Of climbing habit, the plant is moderately vigorous in growth, thus forming a very suitable pillar plant, and also for hanging baskets, as it is slender in habit. By some nurserymen the plant is called Cineraria auriculatissima, the flowers, except in colour, resembling the stellate Cinerarias. It is readily propagated by cuttings or seeds. A figure is given in the *Botanical Magazine*, t. 7731. The Cape or German Ivy is

S. macroglossus, a native of South Africa and introduced to this country in 1868. It is an evergreen climber with dark glossy green, Ivy-like leaves. The pale yellow flowers, which average 2½ inches to 3 inches in diameter, are produced more or less throughout the year. The first plants which flowered in this country were raised from seeds, but the usual method of propagation is by means of cuttings, which root readily in sandy soil. The soft-wooded slender stems, the Ivy-like foliage and the comparatively large flowers are very beautiful when the plant is trained up a trellis or along the rafters of a cool greenhouse. The least known of the three species is

S. canalipes.—This is very vigorous, attaining a height of 20 feet or more in one year, thus being very useful for large conservatories. By pinching out the points of the shoots the plant can, however, be kept of sufficient dimensions for a small house. The lobed, heart-shaped leaves are rich green in colour, the yellow flowers being freely produced on terminal corymbs, which are usually large and freely branched. Individually the flower-heads are three-quarters of an inch in diameter. The plant continues to flower practically throughout the winter. Cuttings obtained from the smaller side growths root readily at almost any season. "H. P.," writing in THE GARDEN some time back, doubted if this species was in cultivation in this country, except at Kew. I have heard, however, that there is a fine specimen on the front of the house at Tregothnan, Cornwall; and when at Messrs. Hugh Low and Co.'s Bush Hill Park Nursery some nine months ago I saw the plant there.

Kew. A. OSBORN.

THE ROSE GARDEN.

THE LYON ROSE.

IN the future this Rose will doubtless be looked upon as the commencement of a new group, that is, the mingling of the Briar hybrids with the Hybrid Teas. We have it on the authority of the raiser, M. Pernet-Ducher, that the Lyon Rose is the result of a cross between the Hybrid Tea Mme. Melanie Soupert and an unnamed variety, itself the direct offspring of Soleil d'Or. I cannot say we have gained a hardy Rose in this cross, as one would have thought by a mingling of the very hardy Briar hybrid Soleil d'Or, for plants of the Lyon Rose imported last autumn have behaved most strangely, the growths turning quite black, doubtless the result of frost. This will be a serious hindrance to the extensive planting one would have liked to carry out with such a beautifully coloured Rose. There is this to be said about the variety under notice: I believe if it were earthed up and its growths cut back hard in the autumn we should find the base of the plants little the worse for the winter frosts.

I expect to see some grand flowers this summer from maiden plants. Those who saw the fine group of Roses of his own raising which M. Pernet-Ducher exhibited at the Franco-British Exhibition will remember how grandly Lyon Rose stood out among them all, the marvellously taking colour of shrimp pink being admired by the numerous visitors. The flowers, which are large, full and with broad petals, are generally borne singly, but occasionally two or three appear on the same shoot. The buds are tipped coral red, with a chrome yellow base. The half-open flowers are salmon pink, shaded with chrome yellow at the base, toning to shrimp pink at the tips, a colour-combination that is certain to appeal to all classes.

In planting this Rose one must afford it plenty of space, for its growths are somewhat spreading in habit. It cannot fail to make a beautiful free-headed standard, the spreading nature of its growths aiding in this, which may be still further assisted by pruning to outward-looking eyes. One of the most neglected details of cultivating standard Roses is a fearless thinning out of the centres of the heads of the trees, which not only hinders the perfect development of the outer growths, but is a harbour for many insect pests. When, therefore, we have a variety that is naturally spreading, this relieves us to some extent of the work of such thinning.

Evidently Lyon Rose has "caught on" in America, for they are already asking for it by the thousand. But this is characteristic of our friends on the other side. When a thing is good they "go" for it without any hesitation, and with their system of raising plants from own roots under glass it is not difficult to quickly get up a large stock. I should say Lyon Rose will be a fine market variety; certainly it will be a superb Rose for pot culture. Last season on pot-grown plants the grand flowers, almost as perfect as a Camellia, were much admired.

I intend to try Lyon Rose as a wall plant, believing, as I do, that it will be an excellent variety for that purpose, and if grown on a south or west wall its growths will be assured of a thorough ripening. Being sweetly scented it should become a general favourite, for I find that next to colour this important attribute is more valued than mere form by all lovers of the Rose, excepting exhibitors, who apparently look upon size and form as more essential than vigour or fragrance. Messrs. Merryweather of Southwell, Notts, hold, I believe, a large stock of it, and the well-formed flower shown in the illustration was grown in their nurseries.

P.

CURRENT WORK AMONG THE ROSES.

ROSES have grown so rapidly the last few days that thinning the shoots of Hybrid Perpetuals is necessary and should be carried out at once. There is a trite saying, that "No man should hoe his own Turnips," and, perhaps, this might apply to thinning Rose shoots. One is terribly afraid of overdoing it; but, as a rule, more bushes and standards are spoilt each year by the want of judicious thinning of the young growths than is generally supposed. Those young growths in the centre of the plant that point inwards should be rubbed off, and where two or more shoots start from one eye, only one should be allowed to remain.

Before thinning, be very careful that those shoots which are to be preserved are free from insect pests, for often a fine growth is checked by these little black pests eating away the point. Some growers imagine that the more growths there are the stronger will be the blossoms. This is a great mistake. If we confine the work of the roots to the development of five or six good shoots, the resulting bloom will be far superior. Not only is this so, but we check the ravages of insect pests by depriving them of their hiding-places. Tea Roses, being more diffuse in growth, scarcely need the same thinning as Hybrid Perpetuals and some of the Hybrid Teas; but in their case an over-abundance of shoots is inadvisable.

Caterpillars must be diligently sought after now, and, when found, given a squeeze. The trees should be gone over two or three times a day. To spray the foliage with arsenate of lead wash is the best poisonous article to employ. No time should be lost in using it. It can be obtained in paste form known as Swift's Arsenate Paste, or if a quantity of Roses need spraying it can be compounded as follows: Arsenate of soda (98 per cent.), 1oz.; acetate of lead (98 per cent.), 2¾oz.; and water, 10 gallons. Place the two in water and stir until both are dissolved, then add the rest of the water and apply with a fine sprayer.

The various beetles and other pests that hide in the ground can be kept at bay by using Kilogrub; but frequent stirring of the soil so as not to afford them any hiding-place is also recommended.

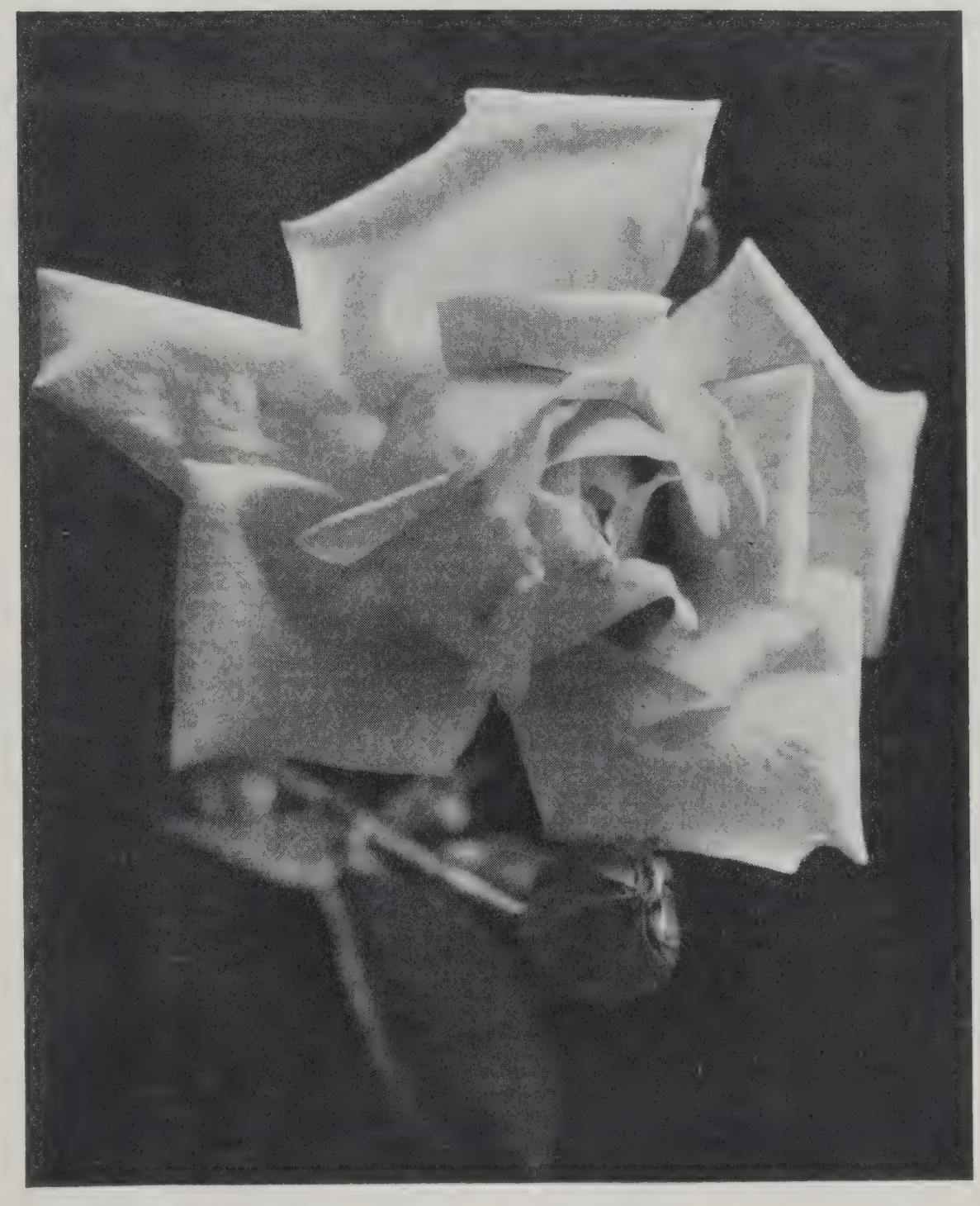
Green fly has already made its appearance, especially on wall Roses, and the pest needs to be checked at once or the foliage will be sadly marred. Dr. Williams has given in "The Rosarian's Year Book" the following excellent recipe for its extermination, and this he has found also good for mildew: Take 1lb. of Jeyes's Cyllin Soft Soap, boil with twice the quantity of water and stir well until dissolved. Take 3oz. of the syrupy liquid and add to 1 gallon of water; apply with a fine sprayer.

Liquid manure should be given now to wall Roses and those on fences. Very forward Rambler Roses may also have some. Wherever buds are showing, liquid manure should be applied; only do not have it too strong at first. If unable to procure cow-manure and soot to make the liquid, guano at the rate of 1oz. to a gallon of water is very helpful. There are also several excellent preparations on the market, which are all mixable in water, and this is one of the best methods of feeding Roses.

Preparations should be made for a supply of liquid manure in readiness when the plants require it, which is usually when the tiny flower-buds are visible. To well-established trees and bushes good strong liquid may be given with much benefit. Old casks or galvanised iron tanks come in useful for storing the liquid, or a brick tank made in the ground. A barrowful of cow-manure and a bushel of soot will make splendid liquid, and may be given undiluted to old and strong plants, but the weakly ones must be cautiously dealt with; merely colouring the plain water will suffice at first.

Artificial manures make good liquid if used with discretion; but I would warn all amateurs to be very careful how they use the powerful fertilisers. House slops are very good if poured into drills and the latter covered up with the soil.

Pot Roses as they go off bloom should be slightly pruned over, and if Teas, Hybrid Teas, Chinese or Polyanthas, they may be grown on to give another crop. Such plants should be given a good soaking with liquid manure. Hybrid Perpetuals are not a success a second time. The plants should be placed in a cold frame, and finally placed outdoors plunged in ashes for the summer. If intended for forcing early they should be repotted in June. Teas and Hybrid Teas are repotted after having produced their second crop of flowers. P.



A SINGLE BLOOM OF THE LYON ROSE.

TREES AND SHRUBS.

A RARE WILLOW.

(SALIX BABYLONICA VAR. RAMULIS AUREIS.)

THE ordinary Weeping Willow (Salix babylonica) is a well-known and deservedly popular tree for planting in the vicinity of water, no tree being of more graceful outline or better suited for the purpose. Its grace of habit is perhaps most apparent when there are trees in the vicinity of stiffer aspect, the contrast being helpful to both. At all times of the year, even in the depth of winter, its peculiarly light outline commands attention, while it is difficult to imagine anything more beautiful in early spring, when the pendulous wand-like branches are clothed with the bright green of the bursting leaves. The variety under notice has not been planted to any great extent, but it is worthy of consideration when a selection of water-side trees is being made, for, in addition to possessing the merits of the type, it has the advantage of having golden bark, which is very showy after the fall of the leaves. It has also another recommendation, for it is a male form, and the slender yellow catkins are very conspicuous in April. Like other Willows, cuttings a foot long planted out of doors in autumn root freely, and strong plants are quickly formed. One point in the culture of Weeping Willows which demands some consideration is the tying up of the leading branches for a few years while the specimens are young. This enables the tree to form a long, erect stem which adds very considerably to its future beauty. If this is not done, a bush-like appearance, rather than tree size, is frequently the result. In addition to growing them by the water-side these Weeping Willows may be planted with advantage in other places, particularly in situations where the soil is naturally rather damp. W. D.

RHODODENDRON SOULIEI.

As recorded on page 270, this Rhododendron is quite a distinct and pleasing species and a native of Western China, where it is found at an altitude of from 9,000 feet to 11,000 feet. As will be seen in the illustration on page 278, the flowers are flattish and borne in a rather close head, the plant also being of a dwarf character. It was shown by Messrs. James Veitch and Sons, Limited, Chelsea, before the Royal Horticultural Society on the 18th ult., when it received a first-class certificate.

THE FLOWER GARDEN.

THE HARDY PRIMULAS.

(Continued from page 243.)

IN the following enumeration of Primula species in cultivation the nomenclature of Pax has been followed.

P. acaulis (P. vulgaris).—The common Primrose of our woods and grassy banks is so familiar to everyone that no description is necessary. It is spread over Central Europe and the Mediterranean region, and has given rise to many garden varieties, of which mention might be made of the variety cærulea with purplish blue flowers, double white, double yellow and double rose. The variety Sibthorpii, with rose-coloured flowers, comes from the Caucasus. All the single forms may be increased by means of seed sown as soon as it is ripe, while all may be propagated by division of the root, either directly after they have finished flowering or during the autumn.

P. algida.—This marsh-loving species is a native of the Caucasus and is nearly allied to our native P. farinosa. The finely toothed obtuse leaves are, however, larger, while the flowers are more showy and of a rich violet-purple colour. It is somewhat rare in gardens, as it generally dies after flowering and does not set seed freely. It grows best in a half-shady position, planted in a mixture of peat and loam, with abundance of moisture.

P. Albionii.—This little gem from the Alps of Piedmont flowers in March and April, and is a very neat and compact-growing plant. It is, however, not an easy plant to grow in this country, owing to the dampness of our winters. While loving moisture at the roots, the leaves are very insceptible to wet. It requires to be planted between stones in a vertical position, so that water drains off readily, or a position might be chosen below an overhanging rock. The delicate rosy purple flowers, with a pale centre, are borne singly on short stalks, quite close to the somewhat hairy leaves, forming a cushion-like tuft. It is a choice little plant for the select rock garden, where it can have special attention. Gritty loam is the most suitable soil.

P. amœna is a handsome species from the Caucasus that was introduced many years ago, but is probably not now in cultivation. It has rugose leaves and heads of good-sized violet-coloured flowers and likes strong loam soil.

P. Auricula.—The typical Auricula of the Alps is widely spread over the mountain ranges of Central Europe. In its several forms it is a well-known plant, but the true wild plant is more rare. This has somewhat fleshy leaves, glaucous in appearance and mealy, the sweet-scented yellow flowers being borne in a dense umbel on stems 4 inches to 5 inches in height. It is a limestone plant, and may be successfully grown in the rock garden planted between large stones, with the rosettes of leaves in a vertical position. The plants should be wedged in the crevices tightly with some smaller stones and stiff, loamy soil, and does best with an eastern or western exposure, where it will get a fair amount of sunshine. One of the parents of the popular garden Auricula, this species has a robust constitution and good seed readily germinates. The seed should be sown in pots or pans in a cold frame in autumn, or in a little heat in spring. As soon as the seedlings are large enough they should be potted off singly in small pots, using a mixture of loam and sand, with plenty of broken limestone mixed with it; or the seedlings may be pricked out several together in pans, to be potted off later as they get large enough. A strong-growing form of this species is

P. Auricula var. ciliata (syn. P. Balbisii).—It is found in the Dolomites and the southern and eastern limestone Alps of Austria, and is distinguished from the type by its deep yellow, scentless flowers and leaves edged with grandular hairs. There is also an absence of the powdery appearance so prominent in P. Auricula. P. A. var. marginata is also another form, with leaves having a conspicuous white margin. It is an unfortunate name, as it is apt to be confused with the totally distinct species of that name, P. marginata.

P. auriculata comes from the alpine regions of the Caucasus and requires plenty of moisture within reach of the roots. Closely allied to P. algida, it chiefly differs in having a longer corolla tube. It has light purple flowers.

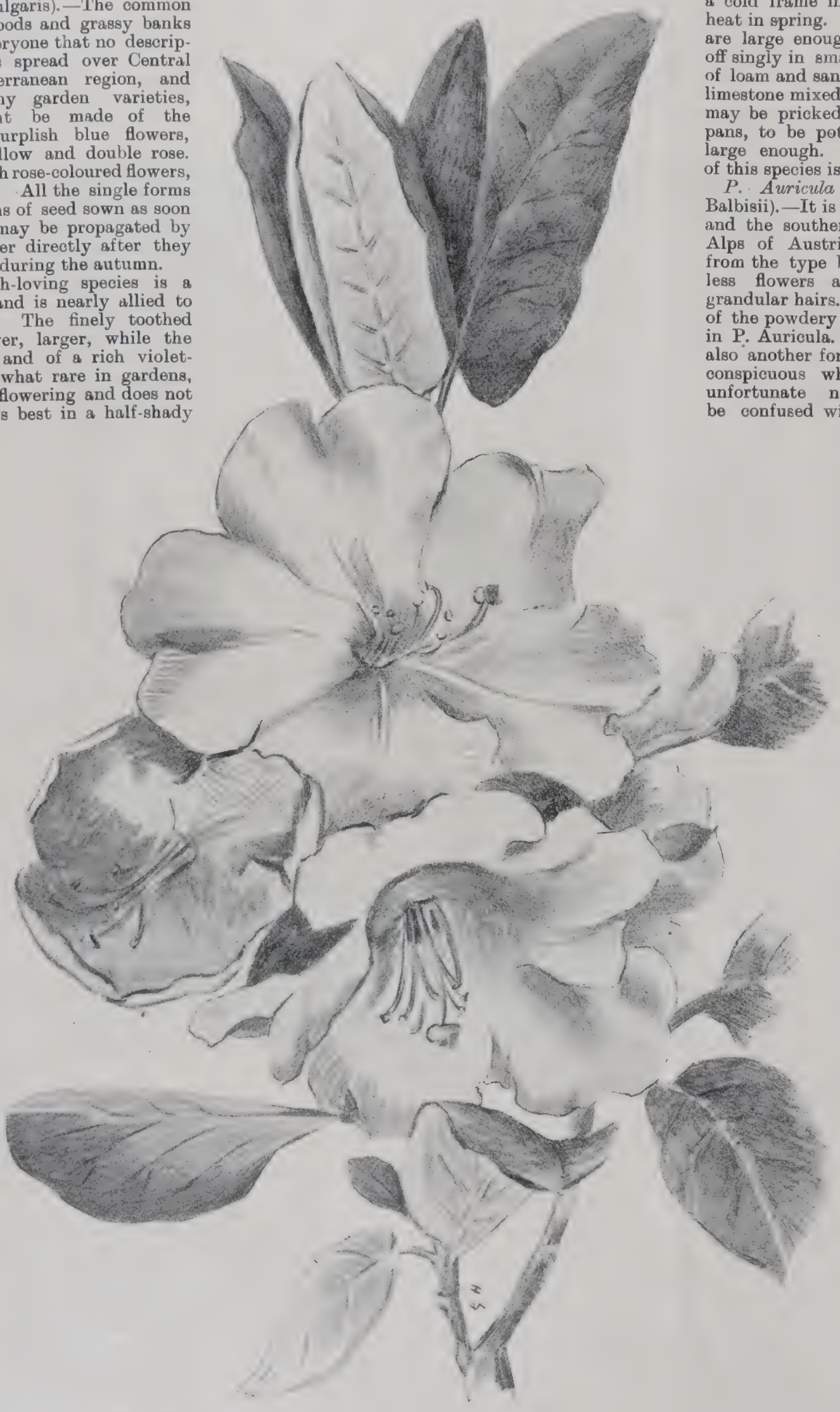
P. Balbisii.—*See* Auricula var. ciliata.

P. calycina.—*See* glaucescens.

P. capitata.—One of the latest of all the Primulas to flower. It belongs to the denticulata section, but differs from that plant in the time of flowering, as well as in habit. P. capitata is a biennial, and seed should be sown early in autumn. As it is rather tender, the seedlings should be kept in a cold frame during the winter, planting them out in spring. A cool, shady place should be selected, where they would get plenty of moisture. Good loam, peat, sand and leaf-soil will suit it very well. The flowers are produced in a compact, globular head on stems 6 inches or 8 inches high, the colour being a deep violet blue, thickly covered with white, mealy powder on the lower parts outside. It is a native of the Himalayas.

W. IRVING.

(To be continued.)



THE NEW RHODODENDRON SOULIEI. (*Natural size. See page 277.*)

SWEET PEA CHAT.

VASES FOR EXHIBITING.—One of the minor troubles of the cultivator of Sweet Peas for exhibition arises when he has thoroughly mastered the task of production and can be fairly sure of the development of excellent blooms. He has the sprays—in what receptacle shall they be shown? The vases of the National Sweet Pea Society place all on an equality; but they are far from being, in themselves, artistic, and it is extremely seldom that they are used where the grower is allowed to choose for himself. Let a good word be said for what is known as the "Ideal." This vase was designed and patented by the redoubtable Mr. T. Jones of Ruabon, and it is now offered for sale at most reasonable prices by Messrs. Dobbie and Co., Rothesay. It is made of the best quality British glass, and has a detachable metal base which ensures firmness when placed on the stage. This is desirable, as all exhibitors have had experience of the stage which moves about freely without the slightest provocation. The removal of the base piece enables packing to be done compactly and securely, and the risk of breakage, which has hitherto militated strongly against the general use of glass vases, is reduced to a minimum. Mr. Jones utilised these vases exclusively last season and won prizes to the value of upwards of £100 sterling; but readers are reminded that to secure the full value of the vases at the show it is imperative that they shall be artistically arranged with flowers of the finest substance, richest colour and splendid size.

WATERING.—Questions are constantly being asked by amateurs and others as to whether it is preferable to use soft water or water from the mains, and, in the event of the latter being the only liquid at command, whether it is necessary to use any softening agent prior to application to the plants. There can be no doubt as to the desirability of soft water, and where there is not an abundant supply at command much good may be done by exposing tap water to the weather in a wide-mouthed receptacle; but even then the supply is almost sure to run out, as large quantities are needed for other plants as well as Sweet Peas. It is, however, common to find that tap water must be used exclusively and that softening is impossible. In these circumstances the grower should guard against directing the liquid immediately to the roots. The best system with which I am familiar is to form drills about 9 inches from the base of the plants on each side of the row and into these put the water, filling and refilling until it is certain that an abundant supply to soak well down beneath the roots has been given. If this method is adopted, the chances of chilling the roots and thus more or less seriously checking the progress of the plants is reduced to a minimum. In no case must water be given until the soil is approaching dryness, and after an application the necessity for more can be reduced by the judicious use of the hoe or by mulchings with short material; in the latter case, when a further supply must be given, the material should be drawn back from the drills and replaced again when the task is completed. The same course is necessary with manure.

EVENING HOSING AND SYRINGING.—When the weather is excessively hot, it is not always easy to keep the stems of the plants in the most satisfactory condition for producing fine flowers on stout stems of reasonable length, and, further, the blooms seem to lack substance and colour. Here will lie the advantage of hosing or syringing—the former for preference—during the evenings following intensely hot, dry days. This will keep the stems in splendid form, and the probabilities are that the plants will develop far superior blooms to those which were not subjected to such a course of treatment. The grower must exercise his judgment as to the frequency of application, and should bear in mind that it is easy to do as much harm as it is good by the practice. These forcible washings will have the further substantial advantage of rendering it impossible for green fly to secure a hold on the plants.

SPENCER.

RAISING WALLFLOWERS FROM SEED.

WALLFLOWERS are almost indispensable to all lovers of spring flowers, and the garden would be difficult indeed to find where a few at least of these charming plants are not grown. Unfortunately, many plants have suffered from the severity of the weather during the past winter. In some cases this is unavoidable; but if care is taken to secure strong specimens for planting out in the autumn, and protection is provided during severe frosts and cold winds, the losses will be considerably diminished.

Some growers defer the sowing of Wallflower seed until the middle or end of June; they aver that plants raised at this season withstand the winter better than the larger plants which are raised in the month of May. This late sowing may be advisable in some cases. Should there be no ground vacant on which to transplant the seedlings raised in May, then put off the sowing until June, and by the time these plants are ready to remove from the seed-beds some of the early crops will be removed from the kitchen garden and more space be available. Should no doubt exist as to the question of room, sow in May and transplant as soon as the seedlings are large enough to handle. This may seem a trivial matter to some; but unless the plants are grown well and these apparently small matters attended to, the results may be anything but satisfactory. It is the robust, well-developed plants that withstand the winter and produce the finest heads of flower.

Prepare shallow drills for the seed, sow thinly and evenly, level the bed with the rake, and if the soil is dry apply water through a fine-rosed watering-pot. As soon as the young plants appear, stir the soil between the rows with the Dutch hoe and remove all weeds from among them. When they are sufficiently advanced to bear handling, prepare a suitable bed and transplant them without delay. If allowed to get overcrowded in the seed-bed they become weakened. Tread down the soil of the bed firmly, level with a rake and plant strong-growing varieties 1 foot apart each way. Smaller varieties may be planted 9 inches apart. Early raised plants require plenty of space; overcrowding must be avoided.

Later-raised plants may be planted out somewhat closer. Plant firmly and apply copious waterings in the absence of rain. Where several varieties are grown, each should be carefully labelled, so that no mistake occurs when finally planting out in the beds or borders. Ply the hoe frequently, both to keep down weeds and also to prevent a hard, caked surface on the bed. Beyond this the plants will require little attention, and nice strong specimens should be available for planting when required in the autumn months.

C. RUSE.

AN AQUATIC AND MARSH NURSERY.

THERE is always an attraction in a visit to a nursery, particularly when that nursery or any portion of it is devoted to specialising in the culture of any one class of plant, as happens to be the case in our illustration of a portion of Messrs. R. Wallace and Co.'s Bog and Aquatic Nursery at Colchester. The photograph was taken in August, and shows the profusion of bloom and effect that the water garden can be made to produce during that month. In the foreground is a mass of Phlox decussata planted among Japanese Iris, which, at that time, had lost their first beauty. To the right is a group of Spiræa gigantea, and towards the centre Astilbe chinensis and A. Silver Sheaf. In the distance are Lythrums, the soft-hued Spiræa venusta, Epilobiums, Arundos, more Astilbes and Spiræas, Actæas, Cimicifugas and numerous other beautiful subjects, all revelling in the rich bog-land. Then there are streams and ponds (not visible in the picture), the true aquatics, Water Lilies, Arrow-heads, Villarsias, &c. Such, too, is the arrangement of the planting that the whole area seems replete with natural combinations of form and colour. This is a distinct relief after the serried lines and orderly array one is inclined to associate with a nursery.

PHLOXES, IRISES AND SPIRÆAS IN MESSRS. R. WALLACE AND CO.'S AQUATIC NURSERY.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—The present is about the best time of the whole year for sowing Wallflowers to provide plants for flowering next spring. If sown earlier the plants are apt to become too large and, consequently, suffer from frost and wet the following winter; while, if the sowing is delayed much beyond this period, the plants do not make sufficiently bushy specimens. Their culture is remarkably easy. Draw drills about 1 inch deep and 1 foot apart, and sow the seeds thinly in these; give a good watering, and then cover in with fine soil. Should the weather remain dry it will be necessary to give other waterings, as it is essential to ensure quick germination and unchecked growth. When the seedlings are about 3 inches high, they should be pricked off about 9 inches apart in rows 1 foot asunder, where they will make splendid specimens for planting in beds and borders next October. Some good varieties are Harbinger, Blood Red, Eastern Queen, Vulcan, Belvoir Castle and Sutton's Yellow Bedding. Canterbury Bells may also be sown now and treated precisely as advised for the Wallflowers. Any bedding-out not yet finished must be completed without further delay, following the general instructions given last week. Sweet Peas that were until recently at a standstill are now making growth freely and mounting the sticks in a vigorous manner. Green fly will probably soon appear on them, and it must be checked at the outset by spraying with one of the many excellent insecticides advertised in THE GARDEN.

Vegetable Garden.—Everything in this department is showing the effect of the prolonged drought experienced during May, and consequently growth of most things is dwarfer than usual. Peas that are flowering or swelling pods must not be allowed to go short of moisture at the roots, or the crops are certain to be at least a partial failure. If they were sown in shallow trenches as advised on this page in the spring, it will now be a simple matter to water them with a certainty that all supplied will find its way to the roots of the plants for which it is intended. A good soaking should be given when watering is done, three gallons to each yard run of row not being too much. All growing plants must be frequently hoed for the double purpose of killing weeds and maintaining the surface soil in a fine condition and so prevent rapid evaporation. Lettuces and the various Greens, except those intended for spring use, will be much benefited by half a teaspoonful of finely crushed soda being sprinkled around each plant about every ten days, afterwards watering it in, unless rain falls soon after it is applied.

Fruit Garden.—Newly planted trees in this department should, if the weather has been dry for some time, be given a thorough soaking with water, after which a 4-inch thick mulch of half-rotted manure may be placed over the roots, and so prevent the moisture evaporating. Currants and Gooseberries are swelling freely, and many of the latter have by now been gathered. Select some fruits from each bush, and so thin the whole crop rather than take all from a few bushes and allow the others to remain thick. Raspberries are throwing up suckers freely, and good will be done by promptly pulling out those which it is clearly evident by their position will not be needed for cropping next year.

Greenhouse and Frames.—Many stock plants, and particularly young ones being grown on from seed, will need repotting now, and the work must not be long delayed. It is far better with most subjects to repot frequently than to use pots very much larger; a small move and often is a good motto. All hard-wooded plants, such as Azaleas, spring-flowering Heaths and hardy shrubs, that were forced will now be making new growth freely, and it is advisable to submit these plants to more air, gradually increasing the supply so that a check is not given, but so that the shoots formed are robust. At the end of the month they may with advantage be plunged to the rims of their pots in ashes in a partially shaded place outdoors, there to remain until early autumn, when they must be brought into the greenhouse again. H.

1.—A TYPICAL SPECIMEN OF THE UMBRELLA PALM.

ROOM PLANTS AND THEIR CULTURE.

THE culture of plants in rooms is a subject that is very seldom dealt with, and, in consequence, much ignorance is displayed by those who desire to make good use of them. There are many points that demand consideration if any real success is to attend the efforts of those who wish to do what is right in this matter.

The state of the atmosphere is frequently responsible for the loss or deterioration of many plants, and yet this is a condition that may be very easily remedied. Rooms in which gas is burned are bad for most plants, yet there are a few that appear to be quite impervious to its evil influence. Those who light their rooms by the aid of electricity or oil have a great advantage over those who burn gas for the same purpose. Readers will, therefore, appreciate the fact that plants in small rooms have less chance of succeeding than those reared in large rooms, where the atmosphere must of necessity be less impure.

Light is also an important factor in the cultivation of plants in rooms. For decorative effect the plants are frequently disposed in positions far removed from the windows, where, if allowed to remain long in the same position, they quickly begin to sicken and, unless removed to more suitable conditions, die. Therefore, where it is necessary to arrange plants in these unsatisfactory positions, from a health point of view they should be shifted from time to time, so that they may recuperate and regain their former vigour. Although plenty of light is advocated for room plants, they must be shaded from the direct rays of the sun. The foliage will soon become browned and uninteresting unless these precautionary measures are taken.

Where plants are arranged in the window, the beginner may ask, What is the best aspect to select? In summer a north window is undoubtedly the best, as there is always good light without there being any risk of damage from the sun. In windows having either an eastern or western aspect these plants do well; but in a south window provision for shading the plants must be made if the results are to be really satisfactory. Again, room plants do not like draughts. In regard to watering, how often

2.—THE LARGE RIBBON FERN (PTERIS MAJOR).

the question is asked, Should I water my room plants once a week or oftener? Just a little thought should instinctively provide the proper reply. Room plants, like all others, should be watered when they need it, and this is when the soil is dry or becoming dry. To maintain the plants in health they must be watered often enough to keep the soil damp. Not infrequently the space between the surface soil and the rim of the pots is so small that one application of water will only suffice to moisten the upper portion of the soil; for this reason and to ensure the soil being moistened throughout, they should be watered two or three times in succession. When very dry, room plants should be stood in a vessel of water until the soil is thoroughly moistened. Tepid water ought always to be used, although some growers may be disposed to use quite cold water in the summer.

The foliage of room plants should be cleansed from time to time. Dust will accumulate, and if the plants are to do well and create the pleasing effect they are so well able to do, they should be sponged over rather frequently, using a soft sponge and warm water for the purpose. When warm, gentle rains are falling, such plants may be stood outdoors with advantage; but we would make the more tender Ferns an exception to this rule. So far as general culture is

3.—THE "FRENCH FERN" OF THE MARKET, ASPLENIUM BULBIFERUM.

concerned, I have in the foregoing notes said all that is necessary under this heading. I will, therefore, deal with just a few of the more popular plants that are especially suitable for room decoration, portraying their character and giving particulars respecting them.

The Umbrella Palm, known to botanists by the name of Kentia or Howea, is one of the most graceful and beautiful of all the Palms, and is in frequent request for indoor decorations. Two of the more popular kinds are Kentia (or Howea) belmoreana and K. fosteriana, both of which in the greenhouse attain a great height and large proportions. Fig. 1 represents a small plant of one of the Umbrella Palms growing in a pot 5 inches in diameter. Readers who may have a plant that needs repotting should pot up into a larger pot in spring, using a compost made up of equal parts of loam and peat and a little coarse silver sand, well mixing these ingredients. See that the crocks are carefully arranged, so that the drainage may be good.

Fig. 2 represents the well-known and extremely popular Pteris. Of this subject there are many species, and there are numerous varieties of most species. The variety represented in Fig. 2 is known as Pteris major, commonly described as the Ribbon Fern. It is of the ordinary type, and has many very pretty crested varieties, each of which is largely grown and easily acquired. The Pterises are usually repotted in March and April, and revel in a compost that is made up of equal parts of leaf-mould, loam, peat and sand. To maintain the plants in health, they should be watered freely in the growing period. Some of the more interesting varieties are: Pteris serrulata (Spider Fern) and its variety P. s. cristata, P. tremula (Trembling Fern) and its variety P. t. smithiana. P. Mayii and P. Wimsettii are also charming plants.

The Asplenium is another beautiful subject, and its many species and varieties are well suited for the purpose under notice. Fig. 3 represents Asplenium bulbiferum, which is largely grown for market. This plant is usually repotted in April in a compost of equal parts of loam, peat, leaf-mould, sand and old mortar rubbish, all well mixed together. The plants divide quite easily.

Another fairly hard and useful room plant is the Aspidium. We portray in Fig. 4 an example of the Holly Fern, which is known to botanists by the name of Aspidium (or Polystichum) lonchitis. The crowns may be divided or the plant repotted in April or later, and a suitable compost should comprise equal parts of loam, peat, leaf-mould and coarse silver sand. In dry weather this subject needs to be watered freely. I hope in a subsequent issue to give particulars of other equally suitable plants for room decoration. D. B. C.

HOW TO OBTAIN COLOUR IN PEACHES.

A HIGHLY coloured Peach or Nectarine has a much better appearance than a badly coloured one. Moreover, a rich colour denotes high flavour, especially in varieties which are naturally and when grown to perfection highly coloured. I well remember taking a dish of six Peaches of the variety Royal George to a large provincial show. The fruits were grown on a tree in a vinery and were staged in competition with fifteen other dishes of Peaches. My fruits were awarded first prize, and, of course, I was greatly elated in consequence. While speaking to one of the judges afterwards, he said, "I noticed that dish of Peaches directly I entered the tent and at once examined them." He praised them a good deal; they were staged on the central table almost in front of the tent entrance. Peaches and Grapes are somewhat difficult to grow in the same structure; but, by the way, I may mention that I was awarded a silver medal at an International exhibition in London for Grapes grown in the same house as these Peaches. I know that many amateurs are obliged to grow several different kinds of fruits in the same structure very often, and I refer to the success I met with in order to encourage such persons to persevere and attain success also. I will briefly state now how I got such a grand colour in my Peaches. At about this time of the year, while the fruits were very small, I made the final thinning and preserved those specimens which were well placed—that is, fully exposed to the sunshine during the greater part of the day. When they were not much larger than Barcelona Nuts, the young Peaches were almost as brown as those Nuts owing to the direct exposure to the sunshine. As time passed the colour deepened, and when maturity approached the deep crimson we so much admire in Peaches was there. This high colour cannot be obtained by full exposure late in the season; it must be from the fruit's infancy. In addition to full exposure, abundance of air must be admitted in suitable weather. SHAMROCK.

THE TOWN GARDEN.

BEDDING-OUT.—This work must be attended to now without cessation until it is completed. Having put out the hardier kinds of plants, the cultivator must devote his time to the planting of the more tender kinds, although it is a wise plan to avoid putting in any plants simply because they look very beautiful now if they will not thrive and continue to do well during the summer months. A hardy plant that will withstand the atmosphere of a town is decidedly better than one which, charming at the present time, will lose its freshness and probably half the leaves by midsummer—a few weeks after the plants are put out. It is then too late to replace the unsatisfactory specimens with suitable ones. When buying plants, choose those which have a rather bronzed or weatherbeaten appearance in preference to the more attractive green-looking examples.

UNSUITABLE PLANTS.—The following kinds of plants ought not to be used except in the best parts, where the atmosphere is fairly clear: Alternanthera, Zinnias, Chilian Beet (grown chiefly in the flower garden on account of its beautifully coloured leaves), Coleuses, Mesembryanthemums, Iresines, tricolor Geraniums, Verbenas, Cannas, Castor Oil Plants (Ricinus Gibsonii), Zea japonica (the striped or variegated Maize) and Acacias. These are all very beautiful plants, and when grown to perfection they look charming in a garden; but where they only just exist, then they make a garden look worse than it would with bare, unfilled borders. Now, I have given a short list of plants which are unsuitable, and I am quite sure that readers of THE GARDEN who possess town gardens and wish, as all do, to make them beautiful will appreciate a list of suitable kinds of plants. The following is a

LIST OF SUITABLE KINDS.—Begonias (especially the tuberous ones), strong-growing varieties of Zonal Pelargoniums, Calceolarias, Fuchsias, Gazanias, Ageratum, Lobelia, Marguerites (more especially the white-flowered, as in shaded borders the yellow-flowered does not bloom freely), Nasturtiums and single Petunias for dry borders and hot corners. Tropæolum Mrs. Clibran (yellow), Vesuvius (crimson) and coccinea elegans (scarlet) are a very fine trio, and soon make a brilliant display in the poor soils in many town gardens. Then we have Cerastium tomentosum and Centaurea candidissima to give a supply of silver-leaved foliage, Koniga variegata to form a dense carpet under a few dot plants, or for a neat edging to borders. Golden Feather supplies the yellow edging and blue Lobelia the blue edging. Portulaca grandiflora is a splendid plant for dry, sunny borders beneath windows, and it blossoms freely. French and African Marigolds and the pretty Tagetes signata pumila are very suitable for growing in poor soils also. Phlox Drummondii, Stocks and Asters, and Pansies and Violas ought to be freely grown, and hardy annuals from seeds sown in the borders where the plants are to blossom.

HOW TO PLANT.—Sometimes the plants after being put out and watered do not prove very satisfactory if the soil is in a dry state at the time. The reason is because the water given does not reach the roots in sufficient quantity to enable them to get a good hold upon the soil, owing to the extreme dryness of the latter. Where the soil is very dry, it is a good plan to give a thorough soaking of water during the evening prior to the day when planting is to be done. Then the soil will be in a nice condition as regards moisture, and if water be given to the newly planted borders immediately the work is finished the plants will grow without experiencing any check, and so quickly get established and fill up the borders.

NEWLY PLANTED SHRUBS.—The soil gets dry in the course of a few days at this season, and in the absence of rain water must be applied to the roots freely by hand; also it would be well to syringe the foliage, thoroughly wetting both this and the stems every evening during rainless days. Further assistance may be given to such specimens by putting on a mulch or top-dressing of rotted manure and turfy loam mixed. A layer 2 inches thick would keep the surface of the soil in a moist state, and it is so essential that such a condition of the soil be maintained in order to induce the free growth of new roots.

ROSES.—Newly planted Roses must be treated in a similar way; if the soil is allowed to get dry around the roots, the young shoots will be very small and also the flowers. AVON.

4.—ONE OF THE HOLLY FERNS (ASPIDIUMS).

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUITS UNDER GLASS.

MELONS.—Keep the roots of these when the fruits are ripening a little more dry and afford more air, so that the best flavour may be obtained. Remove useless shoots, and do not allow the fruits to hang when once they are ripe if there are more than can be used. Remove them to the fruit-room and place them on some rather soft material.

Later Houses.—If the plants are growing in small borders, keep the roots well supplied with moisture, top-dress frequently, using good, rather heavy loam and a little artificial manure. Keep the temperature 70° by night to 85° by day with sun, and if the glass goes up to 90° after syringing in the afternoon it will help them along. Another batch of plants should be raised for later supplies. If planted early, say, the middle of July, the plants should fruit in September and the beginning of October, which, excepting for special purposes and where the houses provided are very suitable, is late enough for the production of good Melons.

Vines.—Madresfield Court: If these have a tendency to crack at the time they commence to colour, allow a little air on the houses night and day. Do not close up with too much moisture. Keep the roots at all times sufficiently watered to prevent the skins of the berries from losing their elasticity, otherwise as the pulp swells the berries are almost sure to split.

Late Houses.—Thinning the berries will need early attention. Alicantes and others, if allowed to get at all large, will prove exceptionally difficult to thin. The berries of Alicante, being oval, may be left a little thicker than some of the round varieties. Be careful when thinning to remove the seedless berries, which may be distinguished by their light appearance. Stop lateral growths, tie down shoots and keep a watch for insects. When tying see that a strong piece of raffia is employed just behind the bunches, especially if large.

FLOWER GARDEN.

Callas.—These may be planted out on good and containing plenty of manure. Plant them 18 inches apart and tread the soil about the roots firm. If the stock is to be increased, divide some of the largest, slightly disentangle the roots and water well if needed in dry weather. Salvias, Eupatoriums, Solanums and several of the kinds required for winter flowering may be successfully planted out, then lifted and repotted in the middle of September. Put in cuttings, if not done already, of some of the best and most useful

Geraniums for winter flowering. Those already struck may need more room, and should be potted on in good soil.

Chrysanthemums.—These must be given ample room and an open position to obtain the best results. At the final potting use good loam and a little bone-meal, with enough grit, leaf-mould or well-decayed manure to make a good mixture. Stake them early to prevent breakage, and pay strict attention to the removal of side shoots and growths generally.

Pot Roses.—When these have done blooming, if necessary repot them, using a good soil. Before repotting see that the whole ball of soil is well moistened, and remove a good portion of the old soil from the ball; a few of the longest roots may be shortened, and use the pots about the same size, well drained and perfectly clean. The plants can be stood in cold frames for a time and then plunged in ashes in the open.

Primulas.—When large enough, prick them off into pans well drained and filled with a sandy compost consisting of loam, leaf-mould and grit. Keep the plants in a greenhouse temperature and as near the glass as possible, but shade from the strong sun.

Campanula pyramidalis.—Pot these on before they get stunted in the small pots and give them liberal treatment. Those coming into bloom feed well, and do not allow them to suffer for the want of water. H. MARKHAM.

(Gardener to Viscount Enfield.)

Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

HARDY FRUIT DEPARTMENT.

STRAWBERRIES.—The work among these just now is important, and the success or otherwise of the crop depends greatly thereon. Weeding and hoeing the surface soil should be done several times successively in dry weather, after which mulching of some kind may be applied, both to keep the fruit clean and to combat the ill effects of drought, should the present atmospheric conditions continue. Where obtainable, straw is the best material for mulching, and often that which has done duty in the stables has perforce to be used. This, thrown into a heap and turned occasionally to destroy any seeds it may possibly contain and to rid it of its unpleasant aroma, is a good substitute for the unsoiled article. Early varieties upon south borders will now be in bloom, and as there is the prospect of this being much in excess of requirements, timely thinning of the trusses, and later of the fruit, upon those retained will considerably accelerate the growth and maturity of a portion of the crop.

Peaches and Nectarines.—Disbudding must be attended to according to the advancement of the shoots, but it is not advisable to act too severely in this until genial weather and free growth clearly indicate which are best to leave, as after the recent cold winds blistered foliage is sure to be more or less in evidence. Badly placed fruits may be removed at once, and thinning out of others where very thickly placed will benefit those left.

Apricots.—These being the earliest of hardy fruits require timely attention being paid to stopping the shoots, which should be done while yet brittle and easily severed by the hand. This is best carried out piecemeal, commencing at the highest part of the trees and gradually working downwards, thus equalising the flow of sap to all parts.

Pears grown as cordons should also have the topmost shoots stopped in good time, while if time permits many of the weaklings may with advantage be broken off cleanly.

Plums appear to have plenty of fruits set, but owing to the irregularity of these, whereby one or two fruits in a cluster swell freely, the others falling off, thinning should not be done until this critical stage is past.

FORCING HOUSES.

Melons.—When the earliest fruits have attained full size and are nicely netted, the use of stimulants must be discontinued, but clear water equal to the maintenance of health and vigour in the foliage be given. To ensure flavour, less atmospheric moisture, more air and sufficient warmth in the pipes to cause free circulation of this are essential. At this season the fruits ripen very quickly, and the first signs of cracking around the stalks should be taken as the signal that removal from the plants must not be long delayed, as the ripening process will proceed equally as well in a cool room, without any risk of disfigurement.

Successional Plants will require copious supplies of water at the roots, which may be surface-dressed with loam and bone-meal from time to time. Ventilate early in clear weather to prevent injury to foliage, and close in the afternoon while the sun has considerable power upon the house, using moisture freely, but avoid as much as possible wetting the stems near the bases. Should canker appear, a little powdered lime will often arrest its progress if applied in time.

Pits and Frames recently cleared of bedding plants may be turned to profitable account during the summer and autumn by being cleaned, prepared and planted with subjects that cannot be depended upon to mature their crops in the open air, such as Cucumbers, which enjoy a rich root-run and bear freely without the aid of artificial heat.

Tomatoes also prove very amenable to cold-frame treatment, but the roots must be kept clear of manure or even rich soil, or growth will be produced at the expense of fruitfulness. These are best planted at the lowest part of the structure and trained to stakes or twine in a sloping position to the top. JAMES DAY.

(Gardener to the Earl of Galloway.)

Galloway House, Garlieston, Wigtownshire.

SWEET PEAS AT THE TEMPLE SHOW.

IT is at the Temple Show that the Sweet Pea enthusiast gets his or her first substantial feast of these fragrant flowers, and this year they were shown in greater quantity than ever. The quality, too, was good in most instances, but really good and distinct novelties were none too plentiful.

Messrs. Robert Sydenham, Limited, Birmingham, was showing a good and well-arranged lot of flowers. Helen Grosvenor is a very pretty waved flower, the large standard being similar in colour to Henry Eckford, but the wings are a delicate soft rose. Romani Rauni is a highly waved member of the cream and pink section, and somewhat resembles Mrs. Henry Bell. Tortoiseshell is another waved one, and may be regarded as a Spencer Henry Eckford. Syeira Lee is a very rich pink sort, with a beautifully waved standard, the bases of the petals being very delicately suffused with cream. In addition to the foregoing new varieties, Zephyr, Helen Pierce and a number of unnamed seedlings were shown in this group.

The exhibit staged by Messrs. E. W. King and Co. of Coggeshall was a beautiful one, the quality of the blooms being good. Blush Spencer is a very faintly coloured new one that is pleasing as seen growing under glass, Cream Spencer and White Spencer forming an interesting trio. Stirling Stent is a novelty for next year; it may best be described as a faintly coloured waved Henry Eckford when grown under glass, but the flowers appear to deepen in colour as they go off. Grown outside, the colour is much deeper and more red than that of Henry Eckford. Helen Lewis, Mrs. Henry Bell and Moneymaker (a large waved white) were all shown in good form.

Mr. C. W. Breadmore of Winchester was maintaining his high reputation with a beautiful group of well-grown flowers. A few that we noted here as being of special interest were Princess Juliana, a larged waved cream variety; Mrs. A. Ireland, a fine Apple-blossom-coloured sort, grand for decoration; Dazzler, a large, slightly waved flower, with rich orange standard and rose wings, being a sort of glorified Helen Lewis; and the beautiful cream and pink Mrs. C. W. Breadmore.

The H. J. Jones's Nurseries, Limited, Lewisham, S.E., had a long bank of good though rather small flowers. A large number of seedlings were included in addition to practically all the good standard sorts. Sunrise is one of the waved Henry Eckford section, the colour being very delicate in these indoor-grown flowers. Malcolm's Waved Cream is very deep in colour, and is undoubtedly a good variety.

We always expect something good from Messrs. Dobbie and Co., and rarely are we disappointed. This year they put up a beautiful lot of flowers, which for size, substance and colour would be very hard to beat. Edrom Beauty, as grown under glass, is an improved Helen Lewis; but the firm is very properly waiting to see how it behaves outdoors before sending it out. Those who like the delicate pale blue colour of Lady Grisel Hamilton will be glad to hear of Masterpiece, a large waved flower of that colour. Earl Spencer (Nancy Perkins) was shown in grand condition on the stand, the large rich orange flowers attracting much attention. New Crimson is a large waved variety resembling The King, a little duller in colour perhaps, but having the advantage of not burning. Betty Cantley is one of the plain standard section, the colour being a delicate suffusion of cream and pink.

Mr. Robert Chaplin, Joynings Nursery, Waltham Cross, had a small group of well-grown and nicely coloured flowers. Miss Collier, Henry Eckford, Helen Pierce and Frank Dolby were all very fine, and we noticed a new flaked salmon red seedling of attractive appearance.

Messrs. G. and A. Clark's group from Dover was very well arranged, the foliage and tendrils perhaps confusing visitors a little. Constance Oliver was very highly coloured here, and St. George was also well developed in this respect. Surrender is a new waved sort of almost reddish violet colouring, the wings being deeper than the standard.

Miss Hemus of Holdfast Hall, Upton-on-Severn, and Mr. George Stark both had small groups of well-grown flowers, but the space available was not sufficient to do them justice.

HOW TO GROW FRUIT TREES IN POTS.

(Continued from page 252.)

NECTARINES.

FORCING varieties best suited for pot tree culture are given in the order of ripening:

Cardinal, the first early, being ten days in advance of Early Rivers', sets its fruit freely, which is an essential point. It colours well, and in point of size may be placed second. It is a cling-stone fruit, but nevertheless excellent. It should not be allowed to hang, like many Nectarines, until it is dead ripe, or it will be found somewhat woolly to the taste.

Early Rivers' follows as the second in order of ripening. In size it is distinctly in the front rank; it colours well and will keep well also after being gathered. Its flavour, too, is first class, while as a packer it will travel well. Compared with many Nectarines it has a relatively small stone to the size of the fruit.

Advance, which I place third (it ripens a little in front of Lord Napier), is one of the finest flavoured of all Nectarines; in fact, I consider it the very best. It has only one drawback, in that it does not always set so freely as those I have named. It is somewhat mottled in its colouring. In size it comes second, while its flowers are as handsome as any, rivalling the old Stanwick.

Lord Napier follows. This is so well known that any further remark is not needed.

Pine Apple and *Humboldt* are next in order of ripening. These are both well known, possibly the first named more than the second, however. They are excellent croppers and of good constitution. The fruits when well finished are very fine, and in point of size should be placed in the front rank. They possess that distinct advantage of keeping well when ripe. Victoria is not a forcing Nectarine, but it is a valuable addition for the sake of its profusion of pollen, a point that should be noted.

PEACHES.

I place *Duke of York* and *Duchess of Cornwall* in the front rank as first early varieties for pot culture. The former is, perhaps, on the whole the better of the two, but both of them are good. Duke of York usually colours better; hence in this respect it is valuable. Both of these surpass Alexander and Waterloo, in that they are not so predisposed to cast their buds as these two last-named American varieties. Hale's Early and Amsden June are uncertain, in that they also cast their buds, but not so badly as some. I recommend

Rivers's Early York and *Early Grosse Mignonne* in preference to either of them. These will follow the two first named on this list.

Crimson Galande and *Stirling Castle*, both with small flowers, but most prolific in pollen, would be my choice to complete half-a-dozen.

Dr. Hogg we always place in the first house with the Nectarines, simply because of the pollen, which is so freely produced. Of Peaches that are not yet so well known as they deserve to be for forcing I recommend

Peregrine, one of the latest of Messrs. Rivers's introductions, and

Dymond, which has a distinct advantage over that old favourite, Royal George, in that it is not liable to mildew. On the whole, we have better success with the first early Nectarines than we do with the first early Peaches, both in quality of fruit and productiveness.

PLUMS.

Until within the past ten or twelve years it was very rare indeed to find the forcing of Plums carried on even in a very limited degree. When we first commenced with Plums I was surprised to find how amenable they were to this treatment. We have forced the same trees now for more than ten years, and it is very rare indeed that a tree fails. For the first early we depend upon

Rivers's Early Prolific. It crops well if not of the very best quality for dessert. I find it ripens about a week later than Cardinal Nectarine in the same house. The next in point of earliness is

Early Transparent Gage.—This is a most reliable cropper and of the richest possible flavour when fully matured. When ripe it is a valuable ornament, even to the dessert. In colour it is a greenish yellow, with blotches and dottings of orange and crimson. It ripens under the same conditions about three weeks later.

Jefferson makes a good succession. This Plum is well known out of doors, and under glass it is equally as good, if not better.

Reine Claude d'Althan makes up a quartette of Plums that for forcing in pots are hard to beat; this last named is a fine-looking Plum, and when well matured of very rich flavour; in colour it is red, with a rich bloom upon the fruit.

CHERRIES.

The earliest Cherry to ripen in pots is *Guigne Annonay*, a rich black fruit with a small stone and a variety that crops well.

Rivers's Early is next to it in the order of ripening. It is an abundant cropper of the largest size, very rich in flavour and one that hangs well after it is ripe. I consider this to be the finest Cherry in cultivation.

Frogmore Early Bigarreau is the best of the light Cherries; in flavour it is excellent, firm in texture, of large size and a good bearer.

Governor Wood, an American variety, is one that we find very useful; though not so large as the preceding, it is very prolific and extremely sweet in flavour.

Elton.—This old variety proves to be excellent in pots; its large fruits are strikingly handsome and it hangs well, being a good succession to any of the preceding kinds.

Reine Hortense is a distinct Cherry, pale red in colour, with thin skin, a good bearer, ripening about the same time as the last named. In addition we grow both May Duke and Empress Eugenie for the sake of their pollen, but their fruits are much appreciated when fully ripe. J. HUDSON.

THE NATIONAL TULIP SHOW.

TUESDAY, May 18, was a real Tulip day at Vincent Square. Seldom, indeed, in the last few years have more varieties been gathered together in one place than was the case then. I have seen a certain number of big days there myself, but I doubt if I have ever seen a more even lot of nice blooms than I saw then. There seemed to be no poor ones, and the silver and silver-gilt medals which were awarded the different amateur and trade groups were well earned. No one was passed over. No one got a "bronze." We Tulip-lovers had a rare treat. The excellent arrangement of pot-grown plants staged right along the whole end of the hall by Messrs. R. and G. Cuthbert, the freshness and size of Messrs. Sutton and Sons' blooms, the grand large Irish flowers of Messrs. A. Dickson and Sons, the old-world bizarres, roses and byblœmens alongside the gayer Cottagers and Darwins that greeted one as they entered on Messrs. Barr and Sons' stand, the glorious mass of Tulip colour, no less than the individual loveliness of some of the "newest of the new" that arrested everyone's attention as they passed up and down the fine collection that Messrs. Wallace and Sons had brought from Colchester; these groups were each of them awarded silver-gilt Flora medals.

Hardly less beautiful and interesting were the groups of Messrs. R. H. Bath and James Veitch and Sons, which received silver-gilt Banksian medals. The former firm had a good many uncommon varieties, while the latter contented themselves with showing in a pleasing fashion the better-known sorts. Messrs. Hogg and Robertson had an interesting mixture of "old and new," and received a silver Flora medal. Their Zomerschroon was an interesting reminder of the past. I never see it without being reminded of all the glamour and romance which belongs to this Eastern potentate. I must not omit to mention the smaller contributions which were made by Lord Hillingdon, Canon Fowler and Messrs. Bull and Sons. They each had their points of interest, and the show would have suffered had they not been there. Each had a hand in making the show of Tulips at Vincent Square on the 18th what I think it may without any exaggeration be called "a great show."

All these, however, by themselves would have left a void. There would have been something wanting—something without which no assembly of fine flowers will ever, I hope, be called "National," and that something would have been the true florist's flowers, those wonderful combinations of colour and form and markings which generations of patient workers have been slowly evolving from the now impossible flowers that startled the floral world of Western Europe in the middle of the sixteenth century. These were there that day, and once again in its long life the Royal National Tulip Society took part in what, without any disrespect to this venerable body, of which I am proud to be a humble member, a real National Tulip show. Tucked away, I regret to say, in one of the annexes, the Southern Section that day held its show. The entries were good, the competition in most classes keen; but on the whole the flowers were weak. The cold, rainless days told a tale, and as a rule the blooms were deficient in size and all the flames very poor. Curiously enough, the feathered flowers were quite up to the average; some few, in fact, were exceptionally good. A fact of great interest and promise is that there were a good many seedlings exhibited, some in a "broken" state, but most as breeders.

I wish Messrs. Chater, Peters and Hall every success in their efforts to raise new varieties. The vitality of such old-time sorts as Julia

Farnese (raised by Slater about eighty years ago), and Guido, a heavy plaited feathered byblœmen (raised about the same time), which I noticed among the single blooms, must be waning, and varieties are wanted to take their place. The flower of the show was Miss Willmott's feathered bizarre William Annibal; its purity and markings were quite exceptional. Mr. Needham had a fine feathered byblœmen in Stockport and a feathered bizarre in George Hayward; while Mr. Hall had an extremely promising bizarre breeder in Gleam. Both Miss Willmott and Mr. W. L. S. Loat staged excellent blooms of Cottage and Darwin Tulips; they were not very nicely arranged. In justice to both it must be said that space was severely limited, and anything very artistic was out of the question. Mr. W. Peters is to be congratulated on the progress of the Southern Section of the society and on his arrangements for the show.

The following were some of the prize-winners: Class A, twelve dissimilar rectified Tulips: First, C. W. Needham; second, Miss Willmott; third, A. D. Hall. Class B, six dissimilar rectified Tulips: First, Miss Willmott; second, W. Dunn. Class C, three feathered Tulips: First, Miss Willmott; second, A. D. Hall. Class D, three flamed Tulips: First, Miss Willmott; second, W. Dunn. Class E, six dissimilar breeder Tulips: First, A. D. Hall; second, Miss Willmott. Class F, three dissimilar breeder Tulips: First, Miss Willmott; second, A. D. Hall.

In the single blooms and pairs Miss Willmott and Messrs. Dunn, Hall and Needham were the chief prize-winners, and for the Darwin and Cottage sections Miss Willmott and Mr. Loat. Mr. William Bolton of Warrington, an old Tulip fancier, who now, however, devotes most of his attention to Orchids, was the judge. J. JACOB.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Selection of Cactus Dahlias (*H. M.*) Seeing that any ordinary list of Cactus Dahlias well up to date, and discarding all varieties of some five or six years old, as now superseded, includes considerably over 200 named varieties, and all in their respective colours very beautiful, it will be evident to you that making a selection of a mere baker's dozen from so many is a matter of great difficulty. This being so, we have preferred to accept as a guide Mr. Edward Mawley's census of the number of times certain varieties of the newer forms were exhibited at the exhibition of the National Dahlia Society last autumn, and in taking those most frequently staged think that such a selection must be the best. These are from the top of the list of eighty varieties published in the society's schedule. You may, if you wish to become a Cactus Dahlia grower, do worse than become a member, as the subscription is only 5s. yearly, and the hon. secretary is Mr. E. F. Hawes, Royal Botanic Gardens, Regent's Park, London. The thirteen varieties are as follows: Nelson, rich crimson; William Marshall, bright orange; Mrs. Macmillan, centre white, deepening to pink; Mrs. F. Grinsted, deep rich crimson, shaded purple; J. H. Jackson, brilliant crimson maroon; J. B. Riding, base yellow, deepening to apricot; Ruby Grinsted, soft yellow, shading to rosy fawn; Mrs. E. Mawley, clear yellow, very fine; Harbour Light, orange red; Thomas Parkin, light terra-cotta, large; H. Shoesmith, brilliant deep scarlet; Pearl, rosy pink, petals tipped white; Rainbow, soft pink, light centre. It will be seen that while all differ in hue, not a few are what are known as shaded flowers. This is a prominent characteristic of the Cactus Dahlia, as it gives us hues and combinations of hues never seen in flowers before this wonderful race was developed as it is to-day.

Injury to Tree Pæony (*W. B.*).—The appearance of the shoot is consistent with injury to the tissues of the newly formed branches just as they arose from the stem when growth began.

Violet leaves turned yellow (*Mrs. B.*).—No fungus is present on the leaves to account for the yellowing, but a deposit of some sort, apparently from the water used, is present on some of them. It is best to use rain-water, but sometimes in districts near smelting works and so on this contains acids brought down from the air, which are liable to do injury to plants. In such places it is almost impossible to grow Violets well.

Name and information about a plant (*West Sussex*).—The specimen you send for name is Lathyrus luteus aureus. As a rule seeds set freely and form a ready means of increase. You may also increase it by taking the young shoots when 2 inches or 3 inches long in spring, and using them as cuttings. They ought to be inserted in sandy soil in a close and warm propagating-case. About mid-April is a suitable time to take the cuttings. You ought, however, to keep a sharp look-out for seeds this summer.

Double Daffodils not flowering (*Young Gardener*).—The non-flowering of the bulbs this year is because no flower-buds were formed last year within the bulbs and could not, therefore, be produced. That no flower-buds were formed may be due to one of several causes., viz., impoverished soil, overcrowding of the clumps of bulbs, or a too dry rooting medium. Because the bulbs have for years flowered well, it does not follow that this can go on indefinitely, and seeing that the plants are apparently healthy, your better plan will be to lift the clumps in early July, freely divide the bulbs, and replant them in a fresh position in well-prepared, moderately manured soil. These Daffodils delight in root moisture, and possibly the position among the trees has been too dry for them.

THE GREENHOUSE.

Treatment of Eucharis amazonica (*Lady B.*).—It is, of course, impossible for us to state positively the cause of your plants of Eucharis amazonica falling into ill-health, but it is generally owing to the soil having been kept too wet, and, consequently, many of the roots perish. This theory is still further borne out by the fact that the leaves of your plants are of an unhealthy yellow tint. You speak of the plants having been repotted in March, and the question is, How was the operation carried out? If the bulbs with their attendant balls of earth were simply transferred to other pots with, perhaps, a little new soil, the plants are not likely to improve. The potting should have been carried out in the following manner: First, turn the plants out of their pots and shake off as much as possible of the old soil. Then wash the bulbs and roots quite clean, and lay them out for an hour or so to drain. By washing the roots you will be able to ascertain their condition exactly, and it is very probable that many of them will be more or less decayed. All such must be cut clean away, leaving only the quite sound roots attached to the bulbs, after which they may be repotted. For this purpose care must be taken not to have pots too large, and in all probability they may with advantage be considerably smaller than those in which the plants have been growing, for the all-important item is to encourage healthy root action, which can never take place if the bulbs are surrounded by a large mass of soil. The pots must be quite clean and effectually drained, a suitable potting compost being two parts yellow loam to one part of leaf-mould and nearly a part of silver sand. The sand should be of a coarse, open nature, and not fine like the Reigate sand. In potting the bulbs should be put at such a depth that the upper part or crown is just on a level with the surface of the soil, which must be pressed down moderately firm. When finished place the plants in a stove where a night temperature of 60° is maintained, rising, of course, during the day. If they can be plunged in a gentle bottom-heat, so much the better. The plants must be shaded from the sun's rays and care taken not to over-water, at all events till the roots are again active, though a liberal amount of atmospheric moisture will be beneficial. As new roots develop and take possession of the soil, the foliage will gradually assume a more healthy tint and become firmer in texture, two very necessary items before one can hope for a good display of flowers. You do not say what size pots your Eucharis are in, but good flowering examples may be had in pots 6 inches in diameter, though, of course, when full of roots larger ones will be needed. Still, once in pots 8 inches or 9 inches in diameter they will stand for years and keep in good health without repotting, but during the growing season a little stimulant in the shape of weak liquid manure and soot-water will be beneficial. For large pots it is an advantage to mix some nodules of charcoal about the size of Hazel Nuts with the soil, as it tends to keep the compost sweet. Healthy plants do not need as much shading as sickly ones, but in any case they require protection from the rays of the sun. Very little fire-heat is needed during the summer months, but in winter a minimum night temperature of 55° should be maintained, rising, of course, 10° or so during the day. It appears to us that your plants have been kept unduly warm, for you speak of a temperature of 75° to 80°. Perhaps, however, you do not intend 75° to be taken as the minimum temperature, but rather as a possible maximum. Some Pancratiums need more heat than others, but P. fragrans or P. speciosa may be grown in the same temperature as the Eucharis or a little cooler.

Calceolaria flower for inspection (*R. W.*).—The Calceolaria flower is a decidedly abnormal one, for although the pouch is quite correct the upper part suggests a fusion of three separate flowers. It is a curiosity, although we have met with flowers very similar before. It is quite possible that seed saved from these flowers would in some cases, at least, reproduce the peculiarity, and in two or three generations the sport might become fixed. Still, we do not advise you to go to that amount of trouble, as such a flower would be of no commercial value but simply a curiosity.

ROSE GARDEN.

Roses decaying (*C. H. Barter*).—The tawny coloured, cancerous-looking marks upon the growths of your Roses are caused by a disease known as Rose tumour. This disease is deep-seated and has permeated the tissues before it makes its external appearance. There is no known cure for it save cutting below the injured parts and burning them. It is found upon Roses not only in Britain, but all over the Continent. Fortunately, we do not hear of much of this disease upon English-grown plants. If you procure your Roses abroad you will do well to examine them, and if any disease presents itself cut it away at once.

Decayed Rose stems (*E. S. L.*).—The portions of growth sent were so very soft and pithy that we were not surprised to find the apparently diseased portions. Such soft growths should be cut clean away at pruning-time. There may be some defect in the soil, which causes the plants to make these soft pithy shoots. In the autumn try cutting a few inches off the extreme ends. By doing this in September the growths are encouraged to ripen better, and when they are well matured they can withstand the vicissitudes of the weather much more satisfactorily.

Growth upon wild Briar (*Miss Montgomerie*). The small knotty growths upon the piece of wild Briar sent are caused by the puncture of a small insect. The growths are often very large and are sometimes called "Robins' Nests." They are not of any great harm.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

FLOWERS, FRUITS AND VEGETABLES FOR EXHIBITION.

How to Gather, Pack and Transmit Them.

(First Prize Essay.)

FRESHNESS and perfect condition are always the first consideration in judging exhibits, whether consisting of flowers, fruits or vegetables, and, as the best methods of gathering and packing differ a little in each case, I propose to deal with each of the three separately.

Gathering and Packing Flowers.

It is best, if possible, to gather the flowers quite early on the morning of the exhibition—the earlier the better, in fact; but where the exhibitor resides at a considerable distance, they should be gathered the previous evening, so that they can be despatched in good time. Cut the blooms with long stems and place in water at once, keeping them in a cool, dark room till they are packed. It requires some experience to select the most suitable flowers; good form and colour are the primary points, size coming next; any blooms with the slightest blemish should be rejected. Flowers which open quickly, such as many of the "thin" Roses, should be cut in the bud stage, fuller-petalled Roses when half open; Sweet Peas are best gathered when the two lower flowers on the stem are open; Carnations when the flowers are almost fully expanded. It is advisable in all cases to cut a few extra flowers, to be held in reserve for replacing any which are not in proper condition for staging.

For packing, shallow boxes should be employed, as the flowers will travel much better if packed in single layers; the boxes should be just long enough to comfortably accommodate the flowers and should be lined with some soft non-absorbent material; wood-wool is the best material to use, but fresh moss will also answer the purpose; over this place a layer of white tissue paper and then lay the flowers in position, packing them as closely as possible; cover with another layer of tissue paper and fill in if necessary with a little more packing material till, when the lid is placed in position, the contents of the box are quite firm and unable to shift. As far as possible, flowers should be packed as they are to be exhibited, either singly or in bunches, and the name of the variety should be securely attached to each. A card showing the section and class for which the exhibit is intended should also be enclosed. When an exhibitor is competing in several classes, each exhibit should be separately packed in light wooden boxes, these being afterwards placed in a stout case. Those who are able to personally convey and stage their exhibits should make use of the vases or tubes in which the flowers are to be shown, these being half filled with water and fixed in position on the show boards.

Gathering and Packing Fruit.

All fruit intended for exhibition should be perfectly dry when gathered and as nearly ripe as possible, any over-ripe fruit being rejected. It should be gathered with the stems attached and be handled as little as possible; to ensure this, it it best to pack straight into the boxes as soon as gathered. Uniformity in size and shape should be the first consideration; in gathering such fruits as Grapes, Peaches, Apples and Pears the best coloured specimens must be selected, even if one has to sacrifice a little as regards size. Boxes just deep enough to hold a single layer of fruit should be used, the smaller soft fruits, such as Strawberries, Raspberries, Gooseberries and Currants being packed together; for these the boxes should be lined with Vine or Fig leaves. The larger fruits, such as Strawberries and Gooseberries, may then be wrapped separately in leaves and packed close together, the smaller kinds being embedded in pockets of leaves, and all intervening spaces filled in; a good layer of Vine, Fig, or other large leaves must be placed over the fruit before the lid is placed on. The lid should be tied on, not nailed, or the fruit may be damaged when opening the box.

Grapes are best packed by themselves, either in wooden boxes or shallow baskets with lids; these are lined with cotton-wool, wood-wool or dry moss, over which is placed a layer of white tissue paper. The bunches are then carefully secured in position with a little packing material. The stems should be tied to the sides of the basket, or, if boxes are used, to a thin cross piece of wood running across the centre. A layer of soft paper is then placed over the fruit and on this a little packing material. It is a little difficult to pack Grapes for sending by rail so that the bloom is preserved, and, where possible, they should be sent or taken by hand.

Peaches, Nectarines, Apricots and Plums must be packed in single layers in shallow boxes, each fruit being wrapped separately in soft white paper and resting on a bed of wood-wool or cotton-wool with a little of the same material placed between the fruits and a rather thick layer over the top. Boxes with divisions, each to hold one fruit, are excellent for the above fruits, a small amount of packing material being placed in each division to prevent bruising. Apples and Pears may be packed in a similar manner. Where a variety of exhibits is to be

sent, the boxes containing them should be packed together in a strong case, placing the largest and least perishable fruit at the bottom. Care must be taken that all exhibits are properly labelled. Those who prefer to take or send their exhibits by hand will find large cross-handled baskets very convenient, especially for such fruits as Grapes, Peaches and Plums. The fruit ought to rest on soft packing material and be lightly covered with paper tied over the top.

PREPARING AND PACKING VEGETABLES.

Although not so liable to damage as flowers or fruit, vegetables require careful packing so that they may be staged in the best possible condition. Potatoes and other roots should be dealt with first, and in selecting for exhibition choice should be made from those of good shape and free from any suspicion of coarseness; they must also be as uniform in size as possible. Potatoes should have firm, smooth skins, and are better if exposed to the air for a short time after lifting. Carrots, Beetroots and other tap-rooted vegetables should be of clean growth and free from blemish. All roots must be carefully washed and dried in a cloth before packing. In the case of Carrots and Turnips a small portion of the top growth should be retained. All exhibits of roots may be packed together in a strong box, using for packing material wood-wool, hay, sawdust or, indeed, anything which will prevent the roots from being bruised. Each root should be separately wrapped in soft white paper. Cauliflowers, Broccoli, Lettuces and other exhibits of a similar nature may be packed together. The two former should have crisp leaves and firm white "flowers." Lettuces must be solid and heavy. In each case remove the coarse outer leaves and portion of the stalk and pack firmly with the heads uppermost, wrapping each plant in paper. Tomatoes should be well coloured, with unbroken skins. They are best packed in single layers in a separate box, using wood-wool or cotton-wool and enclosing each separately in tissue paper. Peas and Beans may be packed together, wrapping up each pod separately. The pods should be long and straight and not too old.

TRANSMISSION OF EXHIBITS.

The best method of forwarding exhibits which cannot be taken or sent by hand is by passenger train, and exhibitors can easily ascertain the approximate time which will be taken on the journey. Exhibits should not be sent by post, as they are very liable to be damaged. Addresses must be clearly written, and the mode of conveyance and the particular train by which they are to travel specified on the label. Boxes should be marked "This side up" and "Perishable Fruit" or "Flowers," as the case may be. Boxes ought to be strongly made but not too heavy, and should be of a convenient size for handling. Exhibits of a light or perishable nature must be packed in separate boxes. For a small extra charge boxes can be sent at the company's risk, and this is advisable in all cases. Exhibitors who intend to personally take their exhibits should have their boxes or baskets furnished with handles or straps for convenience in carrying.

C. W. CAULFIELD.

7, Fetherston Road, Stanford-le-Hope, Essex.

PRIZES FOR READERS.

MAY COMPETITION—AWARDS.

IN this competition essays on "The Best Methods of Gathering, Packing and Transmitting Flowers, Fruits and Vegetables for Exhibition" were asked for. The prizes are awarded as follows:

First prize of four guineas to Mr. C. W. Caulfield, 7, Fetherston Road, Stanford-le-Hope, Essex.

Second prize of two guineas to Mr. H. Tomalin, Tower Hill Cottages, Kingsclere, near Newbury, Berks.

Third prize of one guinea to Mr. E. Argall, The Old Rectory Gardens, North Petherton, Bridgwater, Somerset.

Fourth prize of half-a-guinea to Mr. W. H. Morton, Ellamcote, Gloucester.

Owing probably to the subject and the fact that the long summer days are now here, the essays sent in were not so numerous as usual. The quality, however, was generally good. Those from the following are highly commended: Mr. H. L. Sell, Kempton Villa, Luton; Mr. W. Waterton, Heath Farm House Gardens, Watford, Herts; and Mr. D. E. Elder, Tyne Green, Hexham, Northumberland.

NOTES OF THE WEEK

FORTHCOMING EVENTS.

June 16.—Grand Yorkshire Gala (three days).
June 28.—Isle of Wight Rose Society.
June 29.—Southampton Royal Horticultural Society's Rose Show (two days).

"The Garden" Flower Show.—This will take place on July 28 next, as recorded in our advertisement columns. We may remind our readers of the necessity of collecting the coupons. The display of flowers promises to be of exceptional interest and beauty.

Leonardslee Gardens in June.—The Azaleas are at their best and worth a journey of many miles to see. Such a colour-picture has never been seen before. These with the Himalayan Rhododendrons Aucklandii, Fortunei, cinnabarinum, blandfordianum and others, with also our seedlings, are very beautiful.—W. A. COOK.

The British Gardeners' Association and honorary members.—At the annual general meeting it was decided, after full consideration, that employers of gardeners and others in sympathy with the aims and objects of the association should be allowed to join as honorary members, each paying a minimum subscription of 20s. per annum. The main object of this resolution is to bring owners of gardens and their gardeners more closely together for mutual benefit. The employer will be assured of having a gardener who knows his work, and the gardener of an employer who will recognise in him a skilled workman. Anyone wishing to join as an honorary member should apply to the secretary, British Gardeners' Association, Talbot Villa, Isleworth, for further particulars.

Rhododendrons at Regent's Park.—The splendid exhibition of Rhododendrons arranged by Messrs. John Waterer and Sons, Limited, of Bagshot, Surrey, at the Royal Botanic Gardens, Regent's Park, London, was opened on Thursday, the 3rd inst., and will remain open until nearly the end of the present month. As usual, the plants shown are of very high merit, the many and varied hued trusses of flowers with their foils of dark green leaves providing a beautiful sight. Roughly, the exhibition forms a sort of sunk garden, with an irregular-shaped border filled with Rhododendrons encircling the whole. Inside this gravel paths lead visitors among large beds, where Rhododendrons, fine plants of Kalmia latifolia and Viburnum plicatum, with Japanese Maples for foliage, are most tastefully arranged. About 2,000 Rhododendron plants are on view, these representing something like 170 distinct varieties, many of them being of more than usual beauty. A few that we considered worthy of special notice were Mme. Moser, a double-flowered red variety that is quite new; Mrs. E. C. Stirling, a beautiful self pale pink, the flowers being absolutely free from spots; Gomer Waterer, white, slightly flushed with pink towards the edge, the trusses being very large; Lady Clementina Walsh, light cream, edged with pink and possessing a delicate fragrance; Francis B. Hayes, white, with black spots; Strategist, delicate pink shade; and Dorothy Fortescue, dark cherry red. Naturally, the charming Pink Pearl is well to the front, a large bed being nearly filled with this charming variety. Those who desire to see these Rhododendrons should write to the firm at Bagshot for free tickets of admission. In addition to the Rhododendrons shown by Messrs. Waterer, Messrs. Barr and Sons of King Street, Covent Garden, are showing pigmy trees and hardy flowers. The beautiful gardens look exceedingly well after the refreshing rains of last week, and reflect great credit on the able superintendent, Mr. E. F. Hawes.

Messrs. Stuart Low and Co.—Most of us regret the passing of an old name, but this week sees the lapsing of a name which has been connected with horticulture for nearly 100 years. We refer to the firm of Messrs. Hugh Low and Co., the name of which is so familiar to our readers. The present proprietor, however, has been the man at the helm for the past twenty-five or thirty years, and the name of Stuart Low and Co. we hope has as bright a future before it as the old firm has had in the past. A son of the late Mr. Stuart H. Low of the Clapton Nurseries, he inherits all his father's good business qualities, coupled with an up-to-date style of doing business which those who have had dealings with him will be well acquainted. Many nurserymen of the most remote parts of the country will remember the old days at Clapton. His son is a past-president of the Horticultural Trades' Association, a member of the Orchid committee of the Royal Horticultural Society, a juryman on all the important Continental horticultural exhibitions, and he knows a good plant when he sees it, be it either Orchid, Rose or fruit. The entire staff of Hugh Low and Co. will assist him in carrying on the business of the late firm, and this includes at least two veterans of half a century's service with his father and grandfather. Mr. Harry A. Barnard is well known in the horticultural world, and perhaps personally acquainted with the greater majority of our readers; Mr. F. W. Ashton (late of Stanley, Ashton and Co.) will assist as Orchid expert; Mr. G. F. Salman (late of Dicksons of Chester) is a plantsman of no mean order; and the younger men include Mr. Laurence J. Cook (hon. treasurer of the Perpetual Flowering Carnation Society), who specialises in Roses and fruit trees; and the enthusiastic author of "The Perpetual Flowering Carnation," Mr. Montagu C. Allwood.

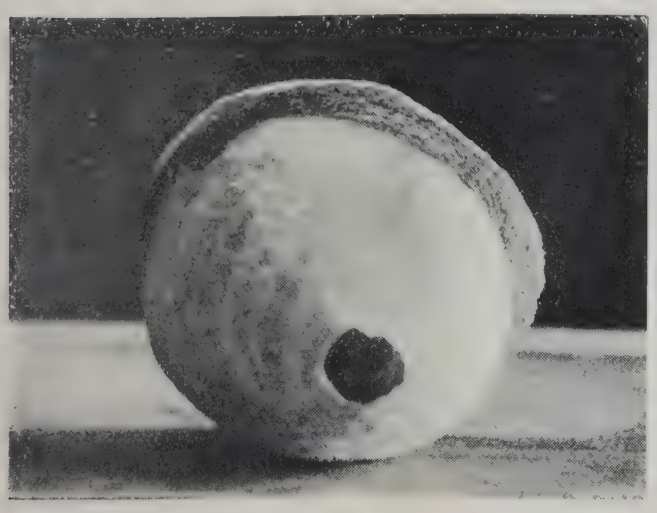
CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Polyanthus Primroses.—Like "A. D.," I was surprised to read the note in a recent issue from Mr. Watts stating that these were raised by a Mr. Walton. If Mr. Watts will refer to THE GARDEN for 1884, he will find some notices in the March issue of the fine exhibits made then from Knap Hill Nurseries in the conservatory at South Kensington, showing the fine strains that existed then. These exhibits are still fresh in the memory of all who saw them. Some few years previous to this I began working at this fine, hardy spring flower, considering then, as I do now, that no other gives the same effect and duration of bloom as these do at the same cost, and from that time till now I have grown each year thousands of seedlings from selection and crosses of my own, striving each year to obtain some new colour or improved shade. I am pleased to add that this season they are considerably in advance of any previous year. During this season a great number have admired the Bronze or Old Gold strain I possess, but this would be ignored by many.—JOHN CROOK.

Tender plants and the winter.—Here our maximum frost was 21·5°, and others nearly as severe. My standard Ceanothus divaricatus was covered every night by a mat during severe days. Only the ends of the branches have died down; but I lost one last year from not protecting it from 12° of frost.—E. CHARRINGTON, *Chamundi, Limpsfield, Surrey.*

An early wasps' nest.—I am sending the enclosed photograph of a wasps' nest that



AN EARLY WASPS' NEST.

was taken at Alton on Saturday, May 22, probably the first this year.—A. V. AMES, *64, Normandy Street, Alton, Hants.*

A cure for slugs.—"Orange" writes in your issue dated May 29 that he finds powdered alum an absolute remedy for slugs, but does not say how he uses it. Might I ask for directions?—SCOTT.

The first Rose of summer.—The first Rose to bloom in my garden here was Billard et Barré on May 21 on a south wall, closely followed by Lady Waterlow, Mme. Jules Gravereaux and Conrad F. Meyer in the order named, the two former also on a south wall.—W. ST. P. BUNBURY, *Bedford.*

Carnations at the Temple Show. In your notice *re* Carnations at the Temple Show, the variety Progress, exhibited by me, is not a Carnation, but a perpetual-flowering Pink, a cross between two of the old florists' laced Pinks.—C. H. HERBERT. [We specially noticed this flower, which is a most welcome addition to the Pink family; it is very free flowering and a good novelty.—ED.]

A complaint.—As we have been asked why, after exhibiting for so many years at the Temple Show, we have not done so this year, and as our absence may give rise to comment injurious to our interests, we should like to be allowed to explain that we withdrew our application and ceased preparing for the show when we found that only 30 square feet (about 7½ feet by 4 feet) of space could be allotted to us. The smallness of the area given to us last year (50 feet) created an impression sufficiently detrimental to our business. We are glad that the show is so deservedly popular, but are sorry that an area sufficient to show off leading exhibits suitably cannot in each case be provided, and that, therefore, for the first time we were not able to be represented. We were not present, but we are told that large banks of strains of seedling plants and other groups or repetitive exhibits were accepted from other firms, occupied considerable space, and were naturally much admired.—KELWAY AND SON.

A fine Cineraria (Antique Rose). As the time for sowing seed to produce plants for next season's display is at hand, a few words regarding this beautiful new Cineraria may be of some interest. It is well named Antique Rose, and this fully describes the lovely shade of warm rose of this sterling novelty. In habit the plants are dwarf and spreading, and produce their large flowers in wonderful profusion. I hope that this lovely colour may be transmitted to the Star varieties, as the shade is telling when the flowers are used for room decoration. It shows up well under artificial light, and is indeed worthy of greatly extended cultivation.—C. BLAIR, *Preston House, Linlithgow.*

Narcissus White Star.—I enclose a photograph I took of White Star (shown by Mr. P. D. Williams) at Birmingham in April. Mr. Jacob describes it in THE GARDEN of May 8 as an incomparabilis. It is quite refreshing to hear Mr. Jacob speaking in the old familiar terms and not attempting to classify this flower as a medium cup for instance; at the same time, I should be inclined myself to class this flower as an Engleheartii. Lowdham Beauty seems rather a troublesome flower to classify, too, but I do not think Mr. Jacob could improve on the term Giant Leedsii, which seems so exactly to describe this type of flower. White Star is, indeed, a beautiful flower and promises to be very useful outside the show.—W. A. WATTS, *North Wales.*

IRISH NOTES.

GLASNEVIN is suffering greatly this year from late frosts; the Potatoes were blackened on Sunday, May 9, and the following week the thermometer registered frost nearly every morning. Trees and shrubs show the effects of this harsh weather and cutting winds. Some Rhododendrons lost their flowers, the growing shoots of Platanus and Pterocarya having also shrivelled up. Many strong and sturdy flowering stems of Primula japonica and P. pulverulenta have bowed their heads to the enemy. Some of the Spiræas, Polygonums and even the hardy Ferns had their soft shoots and fronds injured. But in spite of these drawbacks we have some compensations, for the flowering trees and shrubs are most lavish in their display. Cherries, Barberries, Prunuses, &c., are a mass of flower, while a well-shaped specimen of Pyrus floribunda, 20 feet high by 20 feet through, is literally smothered in pink blossom.

Among the more uncommon plants in flower there is a fine specimen of Sophora tetraptera, a native of New Zealand. Originally it was planted against a wall about 12 feet high, but was allowed to overgrow this protection, and now reaches 26 feet in height. Where protection is afforded by the wall the tree is evergreen; above this wall it looks like an early flowering deciduous tree. The foliage is quite ornamental. The pinnate leaves are 6 inches long, bearing about twenty to thirty pairs of leaflets. The flowers are yellow, 1½ inches in length and borne on short pendulous racemes. One wonders why the specific name tetraptera (four wings) was given until the autumn, when the tree produces a curious four-winged, pod-like fruit constricted above each seed.

Lupinus lepidus is a native of North-West America and was introduced in 1826, but has become extremely rare in cultivation. It is a very local species, found growing from Fort Vancouver to the Great Falls of the Columbia on dry, elevated banks of streams. It is a charming plant, here reaching 2 feet high with the habit of the Tree Lupine, unfortunately of doubtful hardiness. The leaves consist of seven leaflets covered with silky hairs on both surfaces, giving the appearance of glistening silver; even when compared with the leaves of the Silver Tree (Leucadendron) it suffers no deterioration. The standard of the flower of this Lupine is veined with purplish blue, with a creamy white spot at the base; the wings are the same colour, the keel being white, tipped with dark purple. Propagation is by no means an easy matter. Cuttings are difficult to root and seeds are sparingly produced even when the flowers are pollinated, but it can be grafted upon Lupinus arboreus. The new Decaisnea Fargesii from China has passed the winter safely against a wall facing south-west, and was just unfolding its greenish flowered raceme when the frost made short work of the early flowers.

On the same wall Akebia quinata escaped without injury. It is a climbing monœcious shrub bearing quaint, fragrant, claret-coloured flowers. Male and female flowers are produced on the same raceme, the males being the more numerous, but only about one-third the size of the female flowers and with only two petals, whereas the females have three boat-shaped petals.

Pittosporum bicolor is an Australian species, and has been flowering through April and May. It is an interesting evergreen shrub, but only suitable for mild districts. The flowers are rather small and bell-shaped. Before opening they are tinged with red; as they open the petals become recurved and appear yellow. The leaves are 1 inch in length, the under-surface covered by a buff tomentum. Against a wall it has reached 10 feet in height, but in the open, without protection, is only 4 feet high.

A heavy shower of hail has helped Pæonia Mlokosewitschii (P. wittmanniana tomentosa) to shed its petals. However, it is not a great loss, and one can only regret that the colour is not so good a yellow as figured in the *Botanical Magazine*, t. 8173. The foliage is certainly bold and handsome, and in vigour the newcomer is a great improvement upon P. wittmanniana.

The new Pæonia Cambessedesii is the earliest to flower at Glasnevin, opening in April. The flowers are solitary, of a deep rose pink and about 3½ inches to 4 inches across; the plant is dwarf, only reaching 1½ feet to 2 feet high. The most striking point about the plant is the bright crimson colour of the stems and young leaves in spring. Though many other forms are bright in this way, yet none can compare with this new

NARCISSUS WHITE STAR. *Reduced.*)

species in this respect. P. Cambessedesii was collected by Miss Frances Geoghegan of County Dublin in the Island of Majorca, where it was found growing in a rocky and almost inaccessible spot on Cape Formentor. Miss Geoghegan kindly presented her plant to enrich the Glasnevin collection, t. 8161 of the *Botanical Magazine* being figured from this plant. C. F. BALL.

Botanic Gardens, Glasnevin, County Dublin.

A TRIBUTE TO MR. HARRY J. VEITCH, F.L.S., V.M.H.

A PRESENTATION.

IT was with unfeigned pleasure we published a note recently in THE GARDEN signed by the Rev. W. Wilks, secretary of the Royal Horticultural Society, and Mr. H. B. May asking for subscriptions towards defraying the cost of a portrait of Mr. Harry J. Veitch, to be presented to him and then placed on the walls of the Council Chamber of the society in Vincent Square, in which many of the most celebrated of scientists and horticulturists seem to speak to us of the past from those famous canvases. Six hundred guineas are asked for, and so spontaneous has been the response, testifying to the worth of a man who has earned the respect of all with whom he has come in contact, that this sum has been in great part subscribed. We have known Mr. Veitch for many years, worked with him in connexion with the Horticultural Club, known the many difficulties through which he has passed, and his example is one for all young men to strive and follow. We write this in no maudlin spirit. His love of flowers, his devotion to everything that makes for good in the horticultural world, and his intense and practical interest in those who are needy will leave an unfading memory. Mr. Harry Veitch is a splendid type of Englishman, and we look forward to the presentation with delight. We anticipate the warmth of his reception, and we hope Mrs. Veitch will be present also to share in the outburst of affection that will be meted out to one of the foremost horticulturists of the present generation. The midsummer volume of THE GARDEN, 1901, was dedicated to Mr. Veitch, and there we mention that "Throughout the world, wherever horticulture has gained the affections of the people, the name of Veitch is honoured. Mr. Veitch is known for his splendid business capacity and his untiring energy in promoting good work. Mr. Harry J. Veitch was born on June 29, 1840, at Exeter, and received his education at the Exeter Grammar School and in Germany. He afterwards attended the course of botanical lectures given by Dr. Lindley at the University College, and gained an insight into the working of the seed department of the business, which he was soon to manage, in the establishment of Messrs. Vilmorin at Paris. Mr. Veitch commenced work in the Chelsea Nurseries now over fifty years ago, when his activity soon became apparent. When it was determined to hold the Great International Horticultural Exhibition in 1866 in London he entered with zest into the work, forming one of the general committee and of many of the sub-committees. At the continental horticultural gatherings during the past thirty or forty years Mr. Veitch was a constant visitor, and it is interesting to know he was present at the first International exhibition ever held in Russia, this occurring at St. Petersburg in the spring of 1869, when the party —among whom were Sir Joseph Hooker, the late Dr. Robert Hogg, Dr. Moore of Glasnevin and Mr. Robert Warner — were cordially welcomed by the Czar. Through the death of his father and elder brother, whose health failed in 1867—the former dying in September, 1869, and the latter in August, 1870—Mr. Veitch became head of the firm of James Veitch and Sons, and during this prosperous period of its history he published two works that have obtained a world-wide popularity as important contributions to the subjects of Conifers and Orchids, namely, the 'Manual of Coniferæ' and the 'Manual of Orchids.' The Royal Horticultural Society has ever received Mr. Veitch's strong and constant support. He first joined the council when the society removed from South Kensington, and is still a member of that body, adding to this important duty his chairmanship of the Orchid committee.

MR. HARRY J. VEITCH, F.L.S., V.M.H.

"It is almost unnecessary to write of Mr. Veitch's perennial interest in the Gardeners' Royal Benevolent Institution. He has filled the office of treasurer since 1886, and since the retirement of the late Mr. John Lee from the position of chairman of committee, Mr. Veitch has filled that post also. During that period the institution has grown in influence and strength, widening, too, its basis of operations through the Victorian Era and Good Samaritan funds, both inaugurated during recent years. In addition to this Mr. Veitch was active in forming the Royal Gardeners' Orphan Fund.

"It is impossible to enumerate the many societies to which Mr. Veitch belongs, and the philanthropic institutions in which he is interested; but in his beautiful home at East Burnham, close to the glorious Burnham Beeches, he works unostentatiously to promote the welfare of his fellow-men. Many are the tokens of the esteem in which Mr. Veitch and Mrs. Veitch are held by those with whom during a busy and happy life they have been brought into contact, and when their silver wedding was celebrated a few years ago, friends at home and abroad acknowledged by many beautiful gifts their joy that this distinguished horticulturist and his wife had been spared to celebrate so happy an event."

Subscriptions should be sent to either the Rev. W. Wilks, Royal Horticultural Hall, Vincent Square, Westminster, or to Mr. H. B. May at the same address.

BRYONY.

RECENTLY I drew attention to the decorative value of one of our wild flowers, the large Convolvulus. There is yet another of our common hedgerow climbers which has not received any appreciation, but which could be utilised with great effect in well-selected parts of a garden. Though a beautiful object, it is overlooked by the majority; but those who have once singled it out from among the tangle of a hedge will never pass it by again. Its exceptional beauty, particularly in late summer, forces the recognition which it deserves. This plant, known as Black Bryony, valuable on account of its unsurpassed foliage, with its leaves of polished surface and of perfect form, the colour of which ranges from a deep green through all grades of pale brown to richest mahogany, mounting and embroidering the hedgerows, makes one of the most exquisite and finished garlands it is possible to see. The great ropes of green berries, too, which later go to red, are ornamental in the extreme, and one is glad to feel that so much beauty is common enough to give one hope of finding it over the greater part of our island. Clambering about in association with the lovely white Convolvulus the two make a most effective combination, and one that might well be intentionally produced in the wild parts of a garden.

Those who wish to introduce it must be careful to ask for Tamus communis, and not confuse it with another plant with which it has no connexion, the true Bryony (Bryonia), a wild plant not so frequently met with nor possessing the absolute perfection of finish of our Black Bryony, the leaf having more the sculpture of an Ivy or Hop form, and wanting in the high polish of the other. This Bryonia is also known as White Bryony and Red-berried Bryony, which adds to the confusion, for the names hardly serve to distinguish it at all, seeing that the flowers of both plants, small and inconspicuous, are more or less whitish and the berries of both turn to autumn red.

A detail which may be of interest to many is that each of these plants is a sole representative of its particular class in this country.

E. CURGWEN.

THE FLOWER GARDEN.

THE HARDY PRIMULAS.

(*Continued from page 278.*)

PRIMULA CAPITELLATA, from Asia Minor, may be described as a small P. denticulata, with flowers almost like those of P. farinosa. It is a bog plant and requires plenty of moisture.

P. carniolica is a rare and distinct plant from the Alps of Corinthia at 3,000 feet to 4,000 feet elevation. It has smooth green leaves in a rosette, and elegant heads of bluish purple flowers. It thrives best in a half-shady position, planted in gritty soil, or wedged between rocks in a sloping position. Free growing, it often forms large tufts, and has also been known under the name of multiceps.

P. clusiana.—One of the most beautiful species contained in the genus, and a native of the calcareous Alps of Austria, growing on high elevations. It has dark green leaves slightly margined with white, while the large violet carmine flowers are very ornamental. It differs from P. glaucescens, which is often sold for it, in having the petals cut or divided down to the middle. A free grower, P. clusiana succeeds well in half-shade, planted in stony soil. It flowers in April.

P. cockburniana is one of the plants recently introduced by Messrs. Veitch from Western China. The bright orange scarlet colour of the flowers is unique in the genus, and should be of great value to the hybridist. In its native habitat it is said to grow in wet alpine meadows at an elevation of over 10,000 feet. The Primrose-like leaves are produced in a rosette, from which the erect flower-scapes rise to a height of from 8 inches to over 1 foot, bearing three or more whorls of flowers, each one about 1 inch in diameter. Unfortunately it is only a biennial, but it produces seeds freely, and they germinate quickly if sown as soon as ripe. If grown in a cold frame and potted on, they will make flowering plants the following early summer. It should be grown in rich sandy loam and leaf-soil, and likes a somewhat shady position with plenty of moisture.

P. cognata comes from the same country and was also introduced by Messrs. Veitch. It is a bog plant and closely allied to our native P. farinosa, but is somewhat larger in all its parts. It requires the same treatment as P. farinosa.

P. cortusoides.—This Siberian plant is one of the easiest to grow, being quite hardy in this country. The leaves are soft, wrinkled, slightly lobed, and much resemble those of Cortusa Matthiolii, while the deep rose-coloured flowers are borne in umbels on stems about 9 inches long. A shady position, rich loamy soil with plenty of sand and leaf-mould, are suitable for this plant. The Japanese form of this species, P. cortusoides var. Sieboldii (syn. P. amœna) is a much superior plant, with larger flowers varying in colour from white to purple. There are a great number of beautiful hybrids in cultivation. They flower in spring and the foliage dies down early.

P. Cottia grows in fissures of rocks in the Cottian Alps at an elevation of about 5,000 feet. It is closely allied to P. villosa, with bright rose purple flowers in April.

P deflexa.—A recent introduction from the mountain woods of Western China, where it occurs at elevations of 10,000 feet to 13,000 feet. The plant forms a rosette of leaves about 4 inches in length, hairy on both surfaces. The flowers, produced in a dense head on a stem about 1 foot high, are of a charming rose purple colour, but are individually small and all deflexed. It is also a biennial and needs the same treatment as P. cockburniana,

P. denticulata is a handsome and noble plant from the Himalayas, and is deservedly well known and much appreciated in gardens. It is a valuable plant for naturalising in moist, shady places like Fern borders, where it will establish itself and produce numerous self-sown seedlings. In rich soil it is very robust, producing large leaves in rosettes and stout scapes 1 foot high, bearing globular heads of deep lilac flowers. It is, however, variable in colour, and there is a pure white-flowered variety. Although a perennial and flowering annually, the best blooms are always produced by seedlings the second year. Seed germinates freely when sown either as soon as it is ripe or kept till the following spring. A distinct plant is

P. denticulata var. cashmiriana, which has leaves that are covered on the under-side with mealy powder of a bright yellow colour. Like the last it also flowers in spring, and is a charming plant for the moister parts of the rock garden. The flowers are light purple in colour, in heads like the type.

P. deorum.—One of the rarest of the beautiful alpine species from Bulgaria. It is a bog plant and requires abundant moisture in which to grow. Although introduced in the year 1891, it has not been plentiful till recently, when a fresh supply was received. The leaves are long and strap-shaped, and the rich rosy purple flowers are produced freely in many-flowered umbels. It is an excellent plant for culture in pans, which should be stood in a saucer of water during the growing season. A mixture of peat and loam with sand should be used for potting.

P. elatior.—The Oxlip is found in abundance on the Continent of Europe, and is also frequently met with in parts of this country. Its natural home is in moist meadows and woods, and it is therefore a suitable plant for naturalising in such places and also in borders among Ferns. If the ground is kept loose on the surface, it will spread freely by means of self-sown seedlings. There are many varieties of this species in cultivation with flowers of various shades of purple, all of which are easily increased by division of the root in autumn or by seeds.

P. erosa.—This Himalayan plant closely resembles some of the forms of P. denticulata, but differs in having a rhizome without fleshy scales and by its regularly toothed leaves. It is a scarce plant, with heads of light lavender flowers having a silvery powdered calyx. It is short-lived and requires the same position and treatment as P. denticulata.

P. farinosa (The Bird's Eye Primula), which is found in many parts of this country, is very appropriately named, being covered all over with a white mealy powder, which gives it a silvery appearance. It is a bog plant and enjoys a damp, half-shady position among other small-growing subjects of similar habit. In winter the plant forms a bud just on the surface of the soil, so that it is necessary to be careful when weeding among them, as they are easily carried away. If planted too deeply the buds rot, and snails are also very fond of them. The lilac flowers have a yellow centre and are produced in dense umbels from April to June. Seeds sown in sandy soil and kept moist germinate freely. P. farinosa var. scotica is a dwarfer plant, with distinct flowers of a deeper purple colour.

(*To be continued.*)

SAXIFRAGA DECIPIENS MISS WILLMOTT.

THIS is a very pretty addition to the mossy Saxifrages, and, as will be seen by the illustration, is a remarkably free-flowering variety. The blossoms are a pleasing shade of pink, the colour deepening towards the bases of the petals. When shown before the Royal Horticultural Society on the 18th ult. by Bakers, Limited, of Wolverhampton, it received an award of merit.

THE NEW SAXIFRAGA (ROCKFOIL) DECIPIENS MISS WILLMOTT.

TWO GOOD WALLFLOWERS.

DWARF NUT BROWN and Sutton's Dwarf Yellow we have had in flower here for the first time at Shendish, and I cannot speak too highly of them for bedding, being far superior to any other varieties I have used for this purpose. In each case the plants are more bushy, dwarfer, and the flowers larger and more numerous than those of the older varieties, while the colours are everything to be desired where contrasts are aimed at. Generally speaking, Wallflowers have been a miserable failure in this district, especially among the taller varieties, but I have not noticed a single defect in either of the two above mentioned, they having stood the remarkably cold weather in March well. For a number of years we have planted between 5,000 and 6,000 plants here, but we shall certainly discard all old varieties now for them.

G. BURROWS.

Shendish Gardens, Hemel Hempstead.

THE FRUIT GARDEN.

FRUIT NOTES.

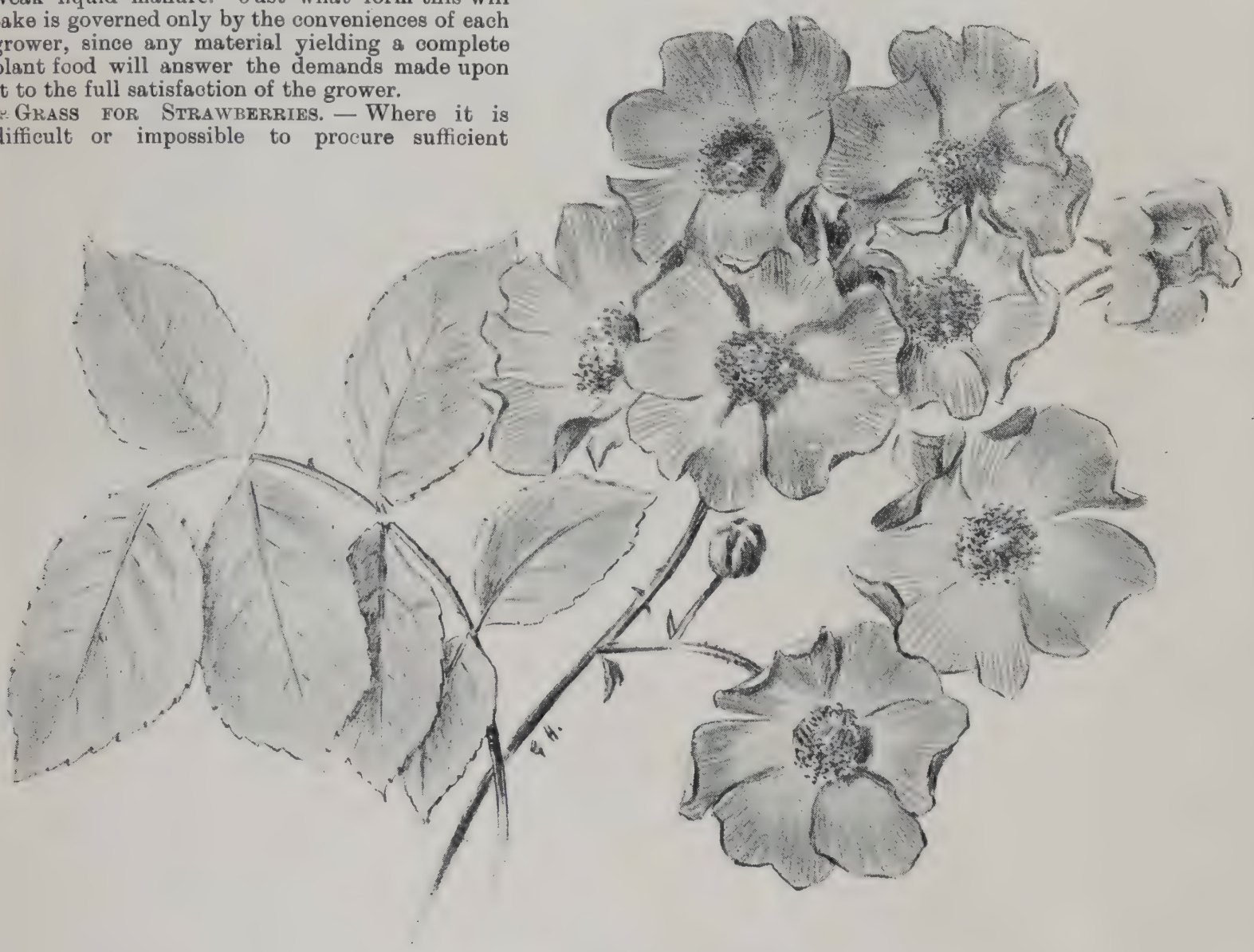
HEAVILY CROPPED TREES.—The majority of trees are carrying splendid crops of fruit this season, and the chances are that, even after the thinning is completed, it will be necessary to give direct aid to the roots in order to ensure the fruits being brought to perfection. It is, of course, true that the crops will finish, provided there is a reasonable amount of available nutriment in the soil, but in this case the quality will not be quite as fine as it ought to be, and the stored energies of the tree will be severely taxed. Beyond this, to force the tree to carry all that it possibly can with the minimum of food in the soil is prejudicing the subsequent crops, for at the same time as the crop for the one season is being perfected the foundation for the next season is being laid. Obviously one would not suggest excessive feeding, but simply that the grower shall err a little on the side of generosity. One of the most important points is to maintain the soil about the roots in a constantly moist condition—never wet and never dry—by the aid of pure water, but these applications should be supplemented occasionally with weak liquid manure. Just what form this will take is governed only by the conveniences of each grower, since any material yielding a complete plant food will answer the demands made upon it to the full satisfaction of the grower.

GRASS FOR STRAWBERRIES. — Where it is difficult or impossible to procure sufficient supplies of clean grass for placing between the rows of Strawberries, with a view to forming a clean bed on which the swelling fruits may lie, amateurs are sometimes tempted to have recourse to lawn mowings for the purpose. This is a mistake that must be avoided in all circumstances, for it is impossible to utilise material more totally unfitted for ripening fruits to touch or even to be near. The cuttings settle down into a mass and commence to decompose, and in this process they are the reverse of pleasant and will contaminate any fruits that are contiguous to them. Failing the command of suitable spreading material, the grower should put twiggy sticks to each truss of fruit, or stout sticks at each end of the line, with smaller ones at intervals between them, and stretch string from one to the other, hanging the trusses of fruit upon it. These things involve a little trouble, but they answer capitally as makeshifts.

THINNING FRUITS. — In the case of stone fruits on walls, this operation commenced some time back by the removal of misplaced fruits and those that were in any respect malformed, this early removal giving a better chance for those retained to stone properly. Now with these and other kinds the process must be maintained, adopting the rule of thinning gradually rather than of taking away many fruits at one time. It is quite impossible for any definite instructions to be given as to how many fruits should be retained for finishing; advice is occasionally given on the point, but it can only be in generalities, for the simple reason that the condition of the tree and the variety must be the governing factors. It is far wiser for each grower to exercise his own common sense, taking strict notes of the numbers retained, the condition to which the fruit attains when ripe and the crop that the plant carries in the succeeding year. Thus he will learn by experience just what each tree will do; and this is a far better teacher than recommendations from someone who has absolutely no knowledge of the trees or their condition.

HOEING.—This is one of the most important of all operations in the fruit quarters. By its aid we not only prevent weeds from growing and robbing the crops of the indispensable food, but we, at the same time, conserve the moisture and the food in the soil. Provided that the soil is in proper condition, it is impossible to use the hoe too frequently, giving the Dutch or pushing hoe the preference as a rule, but always going to the cutting hoe at intervals.

FRUIT-GROWER.



THE NEW ROSE COQUINA. (*Natural size.*)

HINTS ON VINE CULTURE.

(*Continued from page 177.*)

STOPPING AND TRAINING THE SHOOTS.—A Vine when it is healthy grows very rapidly, but unless the shoots are regulated, that is, duly stopped and trained, they will form a thicket, and when the winter pruning is done it will represent so much waste of strength. Overcrowding of shoots prevents air circulating among the leaves near the base of the branches growing from the main rod, and if these important leaves are robbed of light and air they will not be able to carry out their functions; they will be thin in texture or fall off prematurely, and both conditions mean that the two basal buds will lack substance and an embryo bunch of Grapes.

Now, we will see how the work of stopping and training of branches must be done. In the first place, the main rod must be stopped when it has grown about 6 feet or 7 feet long. Many amateurs have probably been advised to let their young Vines grow as long as they will the first year, and that a length of rod of at least 12 feet should be the result of the first year's growth. If left unstopped the rod should grow about 12 feet in the first season, but it ought not to be allowed to do so. The stopping of the rod when it is 7 feet long means the concentration of the strength of the Vine in the main leaves and buds of that rod, and the building up of a strong plant for future years.

The Lateral Shoots.—These are generally abundant on established Vines, but not very plentiful on Vines making their first year's growth. I will here describe how these laterals must be dealt with. If left unstopped they would form numerous young canes branching out from the main or fruit-bearing branch; they would be quite useless and cause overcrowding. Now, these laterals must not be allowed to grow beyond the first leaf. Stop them so, leaving the one leaf and the bud at its base. In due time the cultivator will observe another shoot growing from that lateral, which is termed a sub-lateral. When the latter has grown about 1 inch long remove it altogether; do not leave a single leaf of this sub-lateral, else in time a bunch of shoots will form there. The cultivator must keep a keen watch upon the lateral shoot, as more tiny growths will appear from time to time, and all must be removed before they go beyond the 1 inch in length of growth. In the case of Vines bearing bunches of Grapes, the bunch-bearing branch must be stopped at two or three leaves beyond the bunch. Laterals in plenty will form on this branch near the end, but all these side or sub-laterals must be regularly pinched off as described above. I like to see these sub-laterals growing during the whole of the summer season, because the fact that they do so proves the splendid health of the Vine.

Serious Checks.—On no account must a Vine receive a serious check. If a Vine is over-cropped it receives a check from which it may take several years to recover. Lateral and sub-lateral shoots must not be allowed to grow freely.

G.

(*To be continued.*)

THE ROSE GARDEN.

NEW ROSES.

AMERICAN PILLAR.—Lovers of garden Roses will thank Messrs. Cannell and Sons for introducing this novelty. The flowers are of a lovely shade of pink, with a clear white eye. They are 2½ inches to 3 inches across and produced in huge clusters, quite bouquet-like. It reminded me of the Penzance Briar Amy Robsart, only a great deal larger. The charming feature of this Rose is its blooming on the basal growths, so that one may use the variety either for bold bedding or for pillars. The Royal Horticultural Society gave an award of merit to this Rose at the Temple Show, and it was an honour well deserved. Judging from the interest aroused by the fine display Messrs. Cannell made, this will be a general favourite.

Coquina (wichuraiana).—To the multitude of ramblers Mr. Walsh has added the above very lovely variety (*see* illustration), which will be a charming companion to his Hiawatha. The flowers are single, inclined to be cupped shape, of a delightful shade of porcelain pink, the younger blooms having a yellow base. The long, elegant clusters stand well away from the plant, and, as they are very lasting, produce a highly decorative effect. That it will be a welcome variety for pots was manifest from the plants, to which the society gave an award of merit, that were exhibited at the Temple Show. It is these distinct ramblers that will find a welcome, but sorts such as Galaxy are only burdening the collection unnecessarily.

Diabolo (wichuraiana).—I hear a good account of this new Rose, a cross from the type with Xavier Olibo. It has large single or semi-double flowers of a blackish purple colour tinted with fiery red, contrasting finely with the yellow stamens and white centre.

Excelsa is another distinct sort of which good reports have reached me. The double flowers, which are of a bright scarlet colour, are produced in clusters.

Fairy is a white perpetual-flowering rambler which was well exhibited at the Temple Show. The flowers are single, reminding one of the wichuraiana type, but it is of multiflora origin. There is a delightful gracefulness about this Rose. It will bloom continuously from June to October, and would be an interesting sort to mingle with some of the scarlet Chinas upon a fence.

Rose Molly Sharman Crawford (Hybrid Tea). One was pleased to see Messrs. A. Dickson and Sons at the Temple Show having with them a group of their delightful creations. As so many are now growing Roses under glass, one could form a good opinion of the value of a new Rose for this purpose from blooms cut from pot-grown specimens. In the above-named variety Messrs. Dickson have maintained their high reputation as the leading raisers of new Roses in the whole world. No house can produce such a marvellous record. The Rose under notice will be, in the judgment of experts, the white Rose of the future. It seemed to me to resemble L'Innocence, The Bride and White Maman Cochet all in one; perhaps to call it L'Innocence with the size and substance of a Duchess of Portland would describe it somewhat correctly. The fine long stems were evidence of its usefulness for cut flowers. Messrs. A. Dickson and Sons exhibited the variety at the Temple Show last year, but it was not then in good form. I think raisers would do well to hold back their novelties until they can produce them for the first time in perfection, otherwise they give a wrong impression difficult to dispel. The same firm exhibited well its Mrs. David Jardine, which is a flower of the Catherine Mermet type, but of an exquisite salmon pink colour and very fragrant. The flowers exhibited on this occasion were what exhibitors would call medal blooms, or at least some of them were, and I should say the variety will be excellent outdoors.

Margaret (Hybrid Tea).—This fine Rose was shown by Messrs. W. Paul and Son, Waltham Cross. Exhibitors quickly discovered the variety among the many beautiful sorts in the group put up by the Waltham Cross firm, and the general opinion was that Messrs. Paul had given to the Rose world another really valuable novelty. The colour is a clear and delicate pink, perfectly distinct. It is in the highest rank among show Roses. It is a lovely Rose in all ways, both for the garden and exhibition.

A FINE SPECIMEN OF PYRUS FLORIBUNDA IN THE ROYAL HORTICULTURAL SOCIETY'S GARDENS AT WISLEY.

FEEDING ROSES.

As I write (June 1) we are having a glorious rain, that in this part, Essex, was much wanted. We shall now be busy giving our Roses liquid manure, the best of all ways of building up the fine flowers one desires to obtain. When the soil has been well saturated with rain, liquid manure finds its way to the roots more effectually. Should others who peruse these lines be deprived of the rain, then watering with plain water first is recommended. The following day the liquid manure may be poured on. A good plan is to draw drills between the rows, then fill these with the liquid two or three times before filling in the soil. To old-established Roses I have never found liquid manure too strong, even if used undiluted. A good plan is to have one or two casks of liquid near at hand. Into these house slops, cow-manure and soot may be put and the casks filled with water. If the two latter articles are not available, guano makes an effective substitute, and, of course, there are other good fertilisers on the market that may be used. Where chickens are kept the manure can be utilised advantageously if spread on the surface and hoed into the soil. It also makes good liquid manure. Personally I prefer a mixture of various articles in the liquid, such as stable drainings, soot, guano, blood manure, &c.; but when this is carried out care must be used to dilute the liquid. Chemical manures are all very well for maiden or one year old Roses, and some marvellous blooms are thus obtained, but I always find they have a bad effect the second and subsequent years. Transplanting the Roses every fourth year is an excellent plan for keeping the plants in good health, and when transplanting, which should be done in October, work into the soil some half-inch bones or bone-meal. There is one chemical manure I take exception to and regard it as an excellent fertiliser, and that is sulphate of ammonia. It is, however, best applied in the spring, but a dressing now would be beneficial to the second crop of bloom. P.

A FINE SPECIMEN OF PYRUS FLORIBUNDA.

PYRUS FLORIBUNDA, a native of Japan, the result of a cross between P. Toringo and P. baccata (Siberian Crab), is one of the most beautiful of spring-flowering trees and appears to almost thrive in smoke, and is therefore extremely valuable to the town gardener. The flowers measure about 1 inch across and are borne profusely. They are, when in the bud state, of a bright red tint, which harmonises pleasingly with the blush shade of the fully expanded blossoms. In the case of the variety atrosanguinea the blooms are of a deeper colour, the buds being dark red, while the developed flowers are of a charming tint of rosy salmon. The specimen illustrated, growing in the Royal Horticultural Society's grounds at Wisley, is about 20 feet high and nearly as much in breadth, while the flowers are produced freely.

Richmond, Surrey. LESLIE GREENING.

GARDENING FOR BEGINNERS.

SEASONABLE WORK AND HOW TO GROW ROSEMARY.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Now is a good time to sow Sweet Williams for flowering next year, and if the directions given on this page last week for Wallflowers and Canterbury Bells are acted upon for the first named, success should not be difficult to obtain. It is most important to get the young plants

1.—CUTTINGS OR SLIPS OF ROSEMARY AS DETACHED FROM THE OLD PLANT.

pricked out when small, as Sweet Williams, especially some of the newer varieties, have a tantalising habit of dying during the winter, the best provision against this being hard, sturdy growth, which is secured by early pricking off. Roses are now giving us a few early flowers, and the later buds are swelling rapidly. Mildew and green fly must be watched for and dealt with promptly. For the first named there is no better remedy than Mo-Effic, and for the latter one of the insecticides advertised in THE GARDEN may well be employed, taking care to use both fungicide and insecticide according to the directions supplied with them. Where paths are weedy or overgrown to some extent with moss or other low forms of plant-life, they should be treated with weed-killer without delay. This should be mixed and applied strictly according to the vendor's directions, otherwise more harm than good will be done. It should not be applied within 6 inches of grass, Box or other live edgings, and as it is poisonous proper care must be exercised in its use. Providing reasonable precautions are taken, there is no danger in its use, and paths treated with it are brightened and cleaned in a thorough manner, thus enhancing the beauty of the garden in general.

Vegetable Garden.—A sowing of Peas for late supplies may well be made this week, and, given favourable weather, the crop should be ready at the end of August or early in September. It is most essential that the soil be thoroughly worked and well manured for this crop, and the seeds should be sown in a shallow trench to facilitate watering. It will also be necessary to sow the seeds more thinly than is done earlier in the season, as mildew frequently attacks these late-sown Peas, entangled and thick growth favouring this fungus. Those who like a tall variety should try Ne Plus Ultra, which grows from 5 feet to 6 feet high. Autocrat is another good late Pea that usually attains a height of 4 feet, and Gladstone is somewhat shorter. For a small garden the last named is probably the best, as it is good in every way. Scarlet Runners have germinated very badly this year, and where gaps exist advantage should be taken of a wet day to fill them, removing plants from where they are too thick for the purpose. If the work is done carefully the plants will not receive a serious check. Kale and Savoys may now be planted in their permanent quarters as soon as the weather is wet and the soil in a suitable condition. Where space is none too plentiful they may very well go between the rows of early, short-topped Potatoes, which will shortly be lifted. It is better to plant these greens in this way, providing the weather is suitable, than to wait until the Potatoes are lifted; but, of course, it will be necessary to see that the haulm of the latter does not overhang the greens, else they will become drawn and very weak. All who cultivate vegetables should make a point of joining the newly formed National Vegetable Society.

Fruit Garden.—Where grafting was done in the spring, it will now be necessary to inspect the ties made at that time, as the stock and scion will be swelling rapidly where a union has been effected. The tying material should be removed and replaced with fresh, making this firm enough to afford support and yet slack enough to allow the plant to swell. It is a wise plan to place a stake to each graft and lightly tie the latter to the stake; this will prevent damage by wind, birds or other agency. Cherries on walls frequently become infested with black fly at this season, and prompt measures must be taken for the eradication of the pest. Spraying with a good insecticide and later each evening with clear water will usually keep the young shoots clean and healthy. Cordon trees of all kinds should be gone over at once and all misplaced and weak growths entirely removed; they will easily break out at the junction with the old wood, and their removal will considerably assist those shoots which are left.

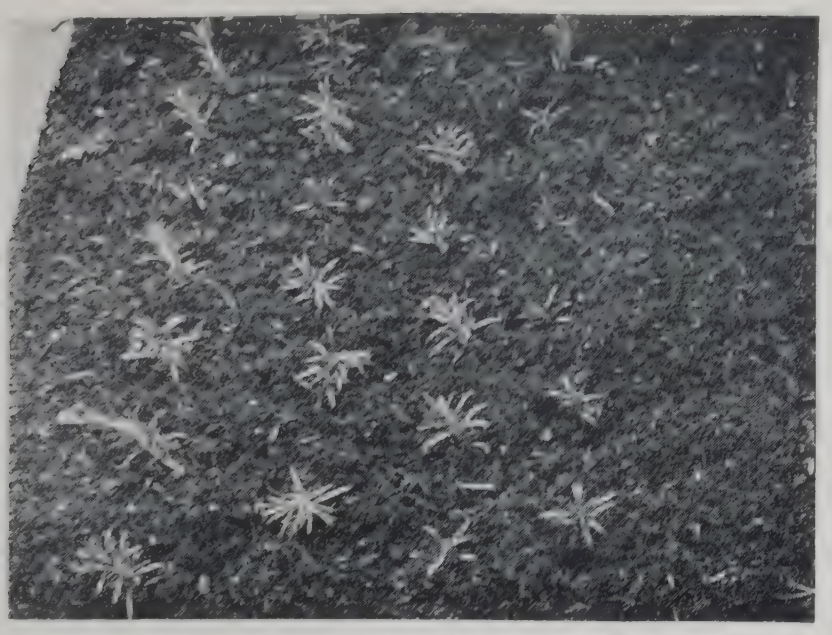
Window-boxes.—Where these have not been filled for the summer no time should be lost in preparing them. See that all parts are sound and clean, and that the drainage holes are not blocked. Generally one large piece of broken pot over each hole is sufficient drainage for the summer, this in turn being covered with moss or the rougher portions of the soil. A good general mixture for filling the boxes is loam two parts, well-decayed manure one part, with a good sprinkling of coarse sand and a 5-inch potful of steamed bone-meal to each barrow-load of soil. The plants should be made firm after planting and well watered in. Of course, the plants used will depend upon the tastes of the owner, but always avoid placing pink or dull red flowers near so-called red bricks; when seen in conjunction these colours clash very badly. Red flowers against white or *vice versâ* are always safe from a colour standpoint. H.

INCREASING THE ROSEMARY.

THE Rosemary has so many historical associations that there is small wonder that it is so popular to-day, apart altogether from its claim to consideration on account of the uses to which it may be put. This plant is known to botanists by the name of Rosmarinus officinalis, and is an extremely old herb. Learned authorities tell us that the name of Rosemary signifies the "dew of the sea," this name being given to the plant because of its partiality for the seashore. Ancient history informs us that Rosemary was employed in making garlands and chaplets, with which it was customary to crown the principal guests at feasts; hence the name Rosmarinus coronarius, which the plant formerly bore. History also tells us that Rosemary was an emblem of remembrance, and was worn at weddings to signify the fidelity of lovers. Shakespeare makes Ophelia to say, "There's Rosemary, that's for remembrance; pray you, love, remember."

It was first introduced in 1548 and is still to be found growing freely in many old gardens, where it has attained quite large proportions. At one time the plant was grown in large quantities in Surrey. The leaves yield by distillation oil of a valuable nature that is used for scenting soaps. To grow the Rosemary really well a sheltered situation is most desirable, and I know of no better position than the base of a wall in a warm aspect. The character of the soil is an important item, and therefore requires consideration. Soil of a heavy, retentive character is quite unsuitable and will need to be specially dealt with to make it possible to grow the plant at all satisfactorily. Rosemary delights in well-drained, light, but fairly rich soil, and this should be trenched or deeply dug previous to the planting. Garden soils of almost any character can be made to suit the plant. By the addition of a plentiful supply of old mortar rubbish many soils may be rendered suitable for planting this fine old herb. April is a good time to plant, but when more than ordinary care is observed Rosemary may be planted at an even later period. Contrary to opinion generally held by the inexperienced, the

2.—THE SAME CUTTINGS PREPARED FOR INSERTION. NOTE THE HEEL OF OLD WOOD AT THE BASE OF EACH.



3.—THE CUTTINGS PLANTED IN A NURSERY BED.

plants succeed much better when they are watered freely during the summer months.

Rosemary may be increased by seeds sown in April and May, by the insertion of cuttings in suitable soil and by the layering of shoots during the summer months. Propagation by seeds is a very simple and easy means of raising a large batch of plants, but from the time the seeds are sown until the crop reaches maturity fully a year must elapse. Half an ounce of seed will sow a row some 50 feet in length. Seeds, which take rather more than three weeks to germinate, should be sown in drills half an inch deep in a sunny border outdoors, and when the seedlings are a few inches high they should be transplanted in a small, specially prepared bed of nice light soil, observing a distance between the seedlings of 6 inches either way. When the seedlings become well established and are represented by sturdy little plants, they should be planted in their permanent quarters about 3 feet asunder. When treated in this fashion, plants of the Rosemary invariably do well.

The most popular method of increasing the plant, however, is by cuttings. This is not difficult. The cuttings may be better known to the novice as slips, and slips are young shoots that are pulled off the old plants with a heel of the old wood adhering. That the true character of these slips or cuttings may be understood and their possibilities better appreciated, in Fig. 1 will be found two illustrations of the kind of cuttings referred to. Note the feathery arrangement of the leaves from top to bottom and the heel of old wood at the base of both of them. The cuttings are some 6 inches in length, and should be inserted in sandy soil in a shady border at any time during the summer season. Before the cuttings are inserted the leaves should be removed from the lower half of them. Fig. 2 shows two cuttings or slips properly prepared previous to being dibbled in. The cuttings should be inserted to the depth of the bared portion of the stem and special care taken to press the soil firmly at the base of each one. Observe a distance of a few inches between each cutting and arrange them equidistant, somewhat similar to that represented in Fig. 3.

By the succeeding spring—March or April—the rooted cuttings or slips should have formed nice little specimens, and will benefit by being planted in their permanent quarters 3 feet apart. Bushy specimens are much to be desired, and that each young plant should partake of this character, the point of the growth may be pinched out the first season. The large plant of Rosemary represented in Fig. 4 was lifted from beneath the wall of a house in a well-known Buckinghamshire garden, where this subject does uncommonly well. It is the custom in this beautiful garden when gathering a posy of flowers to add a sprig or two of Rosemary "for remembrance."

THINNING YOUNG VEGETABLES.

THERE will be plenty of work at the present time in the vegetable garden. Weeds must be killed while they are in their infancy. It is a sad sight to see young vegetables in rows almost hidden from view by a forest of seedling weeds. No mercy must be shown the latter. The work of thinning out young vegetables ought not to be neglected; the timely thinning of the seedlings has such a grand effect upon their subsequent quality. If Carrots, Beetroot and Turnips were left to grow in a crowded condition in the rows, the roots would be very poor indeed, and Spinach and Lettuces practically worthless. The best time to do the thinning out is immediately after a shower of rain. Early thinning is advisable, because it is such a difficult matter to remove surplus seedlings without unduly disturbing those left when all have been allowed to attain to a fairly large size before the work is commenced.

Carrots must be left about 4 inches, Beetroot 6 inches and Turnips 5 inches or 6 inches apart. This may at first appear to be too far, but as the roots grow it will be found that they will nearly occupy the space allotted. Spinach seedlings must have ample room to grow in, and ought to be thinned out to 6 inches asunder. Lettuces, where raised in drills where they are to remain to grow to maturity—to a fit condition for use—must be thinned as follows: Cabbage varieties, 10 inches; Cos, 1 foot apart. Seedling Parsley and herbs must also be duly thinned out.

SHAMROCK.

THE TOWN GARDEN.

DURING the month of May flowering shrubs and trees made our town gardens look charming. Both specimen trees on the lawns and others in the shrubberies were well laden with lovely blossoms, and many of them filled the air with their delicious perfume. The single-flowered and double-flowered Cherry, Lilac, Ribes (the Flowering Currant), the pink and white May, both single and double-flowered, Forsythia suspensa and Wistarias on fences and houses were a few kinds that came and gladdened the hearts, not only of the owners, but of the passers-by, too. I recently saw a grand specimen of the Flowering Currant three parts covering the front wall of a villa residence, and nearly every branch on the plant was well laden with the pendulous bunches of the beautiful flowers. The house was in a very crowded district in a town; and I advise readers of THE GARDEN to make a note of this plant, as it may prove suitable for training on a wall in their own gardens. The proper time for planting is during the month of November.

WEEDS AND INSECT PESTS.—The recent dry weather has enabled the cultivator of all kinds of garden crops to keep them free from weeds, and insects, too, to a great extent. In many gardens one finds in spring hosts of tiny seedling weeds growing in almost every border. Of course, they are the result of one of three causes, or probably of all, namely, old plants being allowed to mature seeds the previous autumn, being mixed with the manure used during the winter and spring months, or blown from weeds growing the previous year in neighbouring gardens. When found, however, the cultivator must make good use of the Dutch hoe, and so kill them while they are very small. The constant stirring of the surface soil will create a mulch, and, further, admit air and warmth to the roots of the plants and hasten the growth of them.

SLUGS AND SNAILS, those great enemies of the tender little seedlings of the various kinds of hardy annuals raised in the open borders, have not had matters quite their own way of late, on account of the dryness of the surface soil. In showery weather it is almost impossible to keep the slugs away from the seedlings, which they thin out too severely and generally select the best specimens.

THINNING OUT HARDY ANNUALS.—No time should be lost now in getting this work well advanced. Where the young plants are growing in clumps, much care must be taken in the drawing out of some seedlings so as not to damage those that are retained, especially where they are rather crowded. The best seedlings to retain are those that are somewhat isolated from the others, because they are already stronger and their roots are not so likely to be disturbed by the removal of the surplus plants as would be the case if one was selected from a very crowded bunch. It is absolutely necessary to select some from the crowded plants in many instances, and much care must be exercised as suggested. If the soil be very dry, thoroughly saturate the whole of it immediately surrounding the seedlings before any of the latter are pulled up.

LAWNS AND GRASS VERGES.—An ill-kept lawn will spoil the general good appearance of any garden, no matter how well arranged and cared for the borders may be. Some persons think the best thing to do is to cut the grass as low down as possible with the mowing machine in order to make the lawn look well kept; but it is a mistake to do this, because the roots of the grass are exposed to the burning influence of the sun and then the lawn soon dries and looks brown and scorched. Set the mowing machine so that the blade will pass over a half-inch thickness of grass and leave a carpet-like surface. Then there are the verges that must be well attended to, and in order to cut the grass without damaging the plants growing in the border, the cog-wheel, or chain side of the mowing machine, must be kept on the outside, that is, run next to the lawn or path as the case may be. Use sharp edging shears for cutting the side grass on the verges, and always gather up the grass shortly after it has been cut.

AVON.

4.—AN OLD PLANT OF ROSEMARY.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

RHODODENDRONS.—As these pass out of bloom it will be well to go over all the more choice varieties and remove the seed-pods, so that the new growths may be encouraged for the next year's flowers. When removing the old trusses, be careful not to injure the young growths, and assist the plants with moisture applied close to the stems.

Ghent Azaleas.—Where large quantities of these are forced annually, the plants may be put out in the reserve garden to make fresh growth and when strong enough to force be lifted in the usual way; but the plants are cheap, and for forcing fresh plants may be procured annually and the older ones planted out in beds in the flower garden, where in due course they will make a pleasing show.

Border Carnations.—To obtain fine blooms it is necessary to thin the buds early, leaving from three to five on each stem. In dry weather good soakings with manure water will greatly assist the plants in making strong growth and large, healthy flowers. Take great care to protect the plants from being destroyed by sparrows, slugs and other pests.

HARDY FRUITS.

Cherries.—See that all the leaders of young trees are made secure before being damaged by wind. When tying them to the wires, or fastening to the walls, use broad raffia or shreds, allowing ample room in each for the swelling of the growth. Take care not to bruise the bark, and should black fly put in an appearance check it at once. Morellos we train much in the same way as Peaches, young shoots being preserved for fruiting the following season. Do not overcrowd with useless wood, and keep the foliage free from aphis.

Peaches and Nectarines.—Where these have set too thickly remove a portion of the fruit at once, and again take off more after ten days or so, nothing being gained by over-cropping. At the final thinning one to 9 inches will be ample if the trees are vigorous and of medium-sized varieties, and allow a little further apart for the larger sorts. Keep the foliage clean and free from insects by the free use of the syringe in fine weather, not missing a particle of the foliage. Use tepid water and do not apply it with too much force.

Pears.—The fruits of these may be thinned early if the trees have set more than they can safely carry. Leave the largest fruits and those best placed, so that they may develop well.

KITCHEN GARDEN.

Vegetables.—As fast as the plants of all kinds of vegetables are large enough to be put out where they are to remain, lose no time in getting them planted, and take advantage of showery weather when possible. Cauliflowers for summer supply require good soil and ample moisture. Put out large breadths of Autumn Giant, Self-protecting and Michaelmas White to keep up a late supply. Sow good breadths of Turnips on north borders and let the land be rich, otherwise the roots will be tough. Sow another lot of Runner Beans to supply pods till late in the season, and earth up Potatoes early.

Asparagus.—A little nitrate of soda or salt will greatly assist these, and do not cut too late or the plants will be weakened for next spring. Where there is ample room and beds a good plan is to give one or two beds a rest for a season.

H. MARKHAM.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

PLANT DEPARTMENT.

ORCHIDS.—In mixed collections many species will now be passing out of bloom, and in accordance thereto attention should be paid as may be required to repotting or surfacing. Fibrous peat and sphagnum moss continue to be most in favour with the majority of cultivators, though Fern fibre and leaves partially decayed answer the purpose well, providing careful selection and preparation are carried out. The most suitable time for root-disturbance is at the first evidence of fresh growth, as then the natural activity of the root system ensures speedy re-establishment. To carry out the work successfully ample time is requisite, and great care should be taken that the roots are not unduly injured. Some species are prone to develop roots that cling so persistently to the outer part of the pot or pan that it is impossible to remove them entire. With such it is best to break the receptacle, and after clearing away any effete material from the inner part of the ball, replace this with fresh and repot, dealing as gently as possible with the crock-attached rootlets. Baskets or rafts may be very similarly treated, or if of small size be bodily transferred to others of greater capacity. Water must be carefully applied for a time, and a well-shaded position afforded the plants until renewed growth and root-action indicate that moderate exposure would be beneficial.

STOVE PLANTS.

Climbers.—Growth upon these will now be rampant, and tying in the shoots to replace the leading shoot will require frequent attention. Where planted out, insect pests are not so likely to be in evidence as when the roots are confined to comparatively small receptacles. Clerodendrons, Allamandas, Passifloras, Bougainvilleas and Stephanotis are all amenable for training near the roof, and if ventilation is well attended to do not require shading, while their flowering properties are enhanced by full exposure to the sun.

CHRYSANTHEMUMS.

Final Potting.—The forwardest of the large flowering sorts, as well as others intended for large specimens, will soon be ready for the last potting, and pots and soil may be got ready when time can be spared. Pots from 9 inches to 12 inches diameter are favoured, the first being of ample size for weak or moderate growing varieties, and the last for the more robust or where the practice is followed of placing more than one plant in each.

Potting Soil.—The various ingredients that form this differ considerably according to the views of the cultivator; the bulk, however, must be good loam that has been stacked long enough to cause decay to the roots it contained. To twelve barrow-loads of this may be added four of short manure, preferably that of the horse, four of leaf-mould and one of bone-meal, with such correctives as burnt ash, lime rubble, soot and sand, according to necessity and the texture of the loam.

Insects and Fungus.—If the foliage is affected with either of these, measures should be taken to eradicate them before potting, as afterwards the difficulty is increased. Green and black fly are easily disposed of by using vaporising compound, and the plants are quickly concentrated in a house or pit for the purpose. Fungus or rust, if present, develops rapidly at this season, especially when the atmosphere is humid. All affected leaves should first be picked off, after which the plants may be syringed with a mixture comprising an ounce of sulphide of potassium to two gallons of water.

JAMES DAY.
(Gardener to the Earl of Galloway.)
Galloway House, Garlieston, Wigtownshire.

THE EDITOR'S TABLE.

FLOWERS FROM IRELAND.

Mr. H. Armytage Moore, Rowallane, Saintfield, County Down, sends us a very interesting collection of flowers. He writes: "For your table I am sending flowers of the following: Meconopsis integrifolia, Clianthus albus, Myosotidium nobile, Primula pulverulenta, Saxifraga ranunculifolia and Cydonia japonica Simoni. As regards Meconopsis integrifolia, I find the best results are obtained from spring-sown seed, stored in silver sand since ripe, strong little plants being thus ready for flowering positions by the autumn. Plants here frequently bear from eight to ten flowers, and seem to appreciate a rich soil in partially shaded positions. The Clianthus albus, covered in flowers, on a sunny, red brick wall gives a striking effect and withstands more frost than is generally supposed. Myosotidium makes fine growth here on a north border in sandy leaf-mould and well-decayed manure. With a good surfacing of sand and slight protection from Bracken fronds it can be wintered satisfactorily. Primula pulverulenta presents no difficulties to anyone who can supply shade and manure, and I have frequently measured spikes over 3 feet high carrying eight whorls of flowers. Saxifraga ranunculifolia, growing in a variety of positions and soils, has been a delicate mass of flowers during the last fortnight, and when well grouped gives a charming effect. Cydonia japonica Simoni, of prostrate habit, shows its rich crimson flowers in admirable array when stretching its strong growths over some bold, sunny rock. In association with the well-known double Arabis a delightful contrast is obtained."

FLOWERING SHRUBS AND OTHER PLANTS FROM DUNS.

Dr. McWatt of Morelands, Duns, N.B., sends us another excellent and interesting floral contribution from what must be an exceedingly well-stocked garden. Among other subjects sent we noticed Rubus deliciosus, Pyrus floribunda, Deutzia discolor purpurascens, the double-flowered Gorse, the Summer Snowflake (Leucojum æstivum), the Bird Cherry (Prunus Padus), the white Spanish Broom (Cytisus albus), C. scoparius andreanus and C. sulphureus, all in splendid condition.

PENTSTEMON CÆRULEUS.

We thank Mrs. Logan of Lloyn-y-groes, Llanymynech, Mont., for so kindly sending a spray of this interesting Pentstemon from the Rocky Mountains. It has been grown in the open in Mrs. Lloyd's garden in Wales. As our correspondent mentions, it will, of course, stand any degree of cold, but the damp of the English winter kills it. A glass light is put over the plant all the winter to keep off rain. The same treatment is suitable for Lewisia rediviva.

FLOWERS FROM COUNTY WICKLOW.

Messrs. Pennick and Co. of Delgany Nurseries, County Wicklow, send us a number of cut blooms of shrubs and other plants which, they tell us, are grown in the open without any protection and which are not injured by frosts. Among them we notice Rhododendron Cynthea, a beautiful rich red flowered variety; Rhododendron Pink Pearl, which is, of course, well known; Sophora grandiflora, with its rich yellow Clianthus-like flowers; Deutzia gracilis carminea, a flesh-coloured variety of this popular shrub; Pittosporum viridiflorum, Acacia armata, Drimys Winteri, Kalmia glauca and Rubus deliciosus (Himalayan Bramble), with its large pure white flowers.

VIOLAS FROM KEW.

Mr. T. Berridge, Kew Club, Mortlake Road, Kew, sends us some excellent flowers of bedding Violas, the colours being particularly rich and clear. He writes: "I send you a few of Sutton's bedding Violas, white and yellow, and should be glad if you would state what you think of the strain. They were sown on June 21 last year and planted out in the bed the first week in October. I did not lose any during the winter. They are a mass of beautiful blooms and are the admiration of all who visit us."

SWEET PEAS FROM DORKING.

Mr. J. Chisholm, The Gardens, Wolton House, Dorking, Surrey, sends us a very fine lot of Sweet Peas, the large, well coloured flowers being borne on long, stout stems. Among them were Syeira Lee, Helen Grosvenor, Ruby, John Ingman and Etta Dyke. He writes: "I am sending you a few blooms of Sweet Peas from plants grown from cuttings. They are in 6-inch pots and vary in height from 7 feet to 10 feet, and are still making strong growth."

CLAMPED APPLES FROM SURREY.

Mr. H. Jonds, Portley Wood, Whyteleafe, Surrey, sends us Apples which have been clamped much in the same way as Potatoes are usually done. Though not a new system, this is not often adopted with these fruits. The specimens sent were firm and crisp, but they quickly decayed after they were received. The flavour, too, was spoiled, probably, as suggested by our correspondent, by the leaves and straw. He writes: "On the first week of December I pitted some Blenheim Orange, Wyken Pippins and Cox's Orange Pippins in a straw skep and an earthenware jar in the ground, like Potatoes, to see how they would keep. I dug them up in May, just six months after pitting, and think my first experiment is not altogether a failure. The musty flavour is due to the dry leaves and straw of the skep, but they are quite as firm as when pitted. Have others tried this way of keeping Apples?"

IRISES FROM HAARLEM.

Mr. C. G. van Tubergen, jun., sends us from his Haarlem Nurseries some very beautiful Irises of the Regelio-cyclus section, there being many new and distinct colours among them. The markings in these Irises are particularly attractive. He writes: "The great advantage of this race over the ordinary Oncocyclus (Cushion) Irises, such as susiana, iberica, Lorteti, &c., is that the Regelio-cyclus varieties grow always luxuriantly and flower profusely, whereas the Cushions usually prove a failure."

BOOKS.

Garden Design.*—The excellent introduction to this interesting little publication is well worth reading, the author dealing with the art of gardening from the remote past right down to the present time, comparing in the latter part of his introduction Japanese and English gardening of the present day. The second portion of the brochure is devoted mainly to very beautiful illustrations of Japanese designs adapted to English gardens, a feature of garden designing to which Mr. White has devoted considerable attention. The accompanying illustration of a summer-house with trellis shutters is taken from this publication, but there are many others even more interesting. We heartily commend this brochure to all who contemplate making alterations in or additions to their gardens. A copy will, we believe, be sent post free to any reader who is interested in the subject.

Home-bottled Fruits and How to Do Them.†—The author has succeeded in giving, in a very concise way, some most useful hints on the subject of bottling fruits, which will not fail to be hailed with delight by every careful housewife. He has had ten years' experience in the work of bottling fruits of all kinds—from the small berries of the bush fruits and luscious Strawberry to the noble Apple and Pear. He rightly refers to the folly of persons growing inferior varieties of fruits, when the better ones do not cost more to cultivate. All fruits must be sound, says the author, and this is a point that we would draw special attention to. Unsound fruit should always, in every circumstance, be rejected. Mr. Brewer also says: "Any fruit to be used may be first washed, and this should always be done when it is at all dusty or dirty." He gives instructions as to the right way to wash the fruit, and further says: "There is no need for the fruit to be dried before bottling." We strongly commend the author's advice as to the need for washing soiled fruit, but we would prefer to have it well dried before bottling. All the needful operations, from the gathering to the final work connected with the bottling, are given in a simple way that can readily be understood and followed by a beginner. Much careful interest is now being taken in the cultivation of fine fruits in this country, and this little book comes as a timely reminder that it is the duty of every housewife to make the utmost use of the fruits when they are ripe, and tells all how to do them.

* "Garden Design," with an introduction by Rowland E. Prothero. Published by John P. White, The Pyghtle Works, Bedford, and 134, New Bond Street, W.

† "Home-bottled Fruits and How to Do Them." By W. S. Brewer, price 6d. net. Messrs. Harvey and Healing, Manchester Street, Cheltenham.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper*

FLOWER GARDEN.

Culture of Galtonia candicans and other plants (*A. G.*).—The Galtonia should have been planted not later than February in well-prepared garden soil and at 5 inches below the surface. The plants are now very forward in spike, and any bulbs planted so late will hardly give any good result. The Auriculas may be divided by shaking away the soil, or even washing it away, and pulling—not cutting—the plants asunder. The point of a knife may be inserted here and there to give a start, as it were, to the best line for separation, taking care that each portion has its complement of root-fibres. In the replanting or repotting the divisions should be buried right up to the leaves, as the plants continue to emit roots from the stems. The plants may be divided as soon as the flowering is over. Seeds of the Aubrietias should have been sown weeks ago, but if sown now a little extra care in a cold frame will give you small plants by the end of the season. The seeds of almost all classes of hardy plants should be sown from November to January inclusive, the object being to give the seedlings the longest possible season of natural growth in the first year.

A SUMMER-HOUSE DESIGNED AND ERECTED BY MR. J. P. WHITE.

Layering Tree Pæonies (*H. E. F.*). The simplest and most useful way to layer the Tree Pæony is to layer the young shoots in spring before the buds push, pegging them down to the ground, or into pots sunk in it, and making a ring in the bark round each bud, covering this part of the branch with soil such as that in which the plants are growing. Older branches may also be layered in the same manner in September, and the layers should in both cases remain on the plants until they have rooted. Grafting is more largely practised, but is not so suitable for the amateur as layering. Suckers may also be secured in many cases from established plants.

A four-flowered Daffodil (*E. Courtenay*).—It it unusual for any Daffodil to have four flowers on one stem. Instances of plants with two on a stem are fairly common, but we cannot call to mind any instance of one bearing four. We presume, of course, that the variety in which you noticed this freak was one of the Magnis or Medios, and not a small-flowered bunch Narcissus. We wish you had given us its name.

Name of semi-double Tulip (*J. Sheppard*).—We have enquired among both English and Dutch Tulip experts as to the name of the variety you sent us and none of them know it. Probably, as it is only a small flower, it has never been named and sold only in mixtures. We wonder if you bought it in a mixed lot, and would be interested to know.

TREES AND SHRUBS.

When to take cuttings of flowering trees (*M. S.*).—The best time to take cuttings of the majority of flowering trees and shrubs is from July to September; but some of those you mention are not easily propagated by means of cuttings, and are usually either budded or grafted. The only one that you mention that succeeds fairly well from cuttings is Prunus triloba. Cuttings of young shoots should be taken just as they are getting firm, inserting them in pots of sandy soil in a propagating case. Unless you understand budding and grafting well you will do better to purchase young plants of the remaining things you mention, for they can be obtained very cheaply and quickly from good specimens. Your Lilacs that do not flower probably require well thinning out. Try taking out the weak wood and thinning the young shoots. If the work is done at once you may probably get a crop of flowers next year.

Treatment of Azalea mollis (*A. B.*).—Your better plan will be to cut back the straggling branches of the Azalea mollis at once, in order to give it as long a growing season as possible. The best time to transplant Magnolia conspicua is the latter part of October and in November.

ROSE GARDEN.

Rose foliage blighted in Jamaica (*Rosarian*).—The foliage of your plants of Paul Neyron is affected with a disease known as black spot (Actinonema rosæ). This is an injurious fungus, as it not only causes premature defoliation, but the buds are made to expand before their time. This disease should be attacked in the spring by frequently spraying the plants with sulphide of potassium or other good fungicide, such as Bordeaux mixture. All you can do now is to remove at once all badly diseased leaves and burn them immediately, also any on the ground. Many growers find transplanting the Roses to a new position one of the best remedies, especially if the plants and surface soil are frequently sprayed as mentioned above. The foliage of the climbing Malmaison is badly affected with mildew. There are so many circumstances that cause this fungus to appear, one of the most frequent being the sudden change in the temperature and drought. An excellent remedy, if persisted in, is Jeyes's Cyllin Soft Soap.

Rose Hector Mackenzie (*Ringmore*).—The colour of this variety is deep rose, shaded with silvery carmine and crimson.

Questions about Roses (*Burton*)—(1) We know of no register for new Roses. (2) Apply to Mr. E. Mawley, Rosebank, Berkhamsted, Herts, hon. secretary of the National Rose Society, and he will give you instructions how you may exhibit blooms of your new Rose at an exhibition of that society. (3) There would be no fee.

Roses failing (*German*).—Do not give these weakly Roses any of the artificial manure. If you have had no rain a good watering would be beneficial, and you could further help them by lightly forking up the soil round about their base, and afford a good syringing to the growths and stems every morning and evening.

KITCHEN GARDEN.

Planting and training Tomatoes in a frame (*Anxious, West Derby*).—You may grow the plants, as suggested, in the frame; but the better plan would be to put them in at the front of the frame and train the branches upwards towards the back, in the same way that plants and Vines are trained under the roof glass in a vinery. Use good fibrous loam and one peck of old mortar rubble to three bushels of the loam for the plants to grow on. The rooting medium must be made very firm and feeding commenced when two trusses of fruits have formed.

Stimulating Onion growth (*W. C.*).—You do not tell us whether your Onions are autumn sown, spring sown, or raised under glass from a midwinter sowing and are now planted out thinly. If from autumn or spring outdoor sowings, thin the plants in the rows to 9 inches apart at least; if from a January sowing and planted out, they should be fully 12 inches apart in the rows, and those 18 inches apart. Just at present it is not desirable to give any stimulus other than water if the soil be dry; but if fairly damp the best thing is to place all over the ground about the plants and between the rows a mulch of decayed manure, very short, 1 inch thick; this will help to preserve the moisture and gradually wash in. Then when the bulbs begin to form and roots have gone deep, make holes with a crowbar 1 foot deep and fill those once a week with liquid manure made from soot and horse-manure, a bushel of the latter to twenty gallons of water. Make the holes 6 inches from the plants, and when filled draw manure over them.

How to grow Cucumbers (*H. T.*).—You do not say whether you wish to grow them in a house or in a frame. If you have a glass house heated with hot water, it is a very simple and easy matter to grow Cucumbers to perfection in summer. Should you have a stage on the front or the back side of your house, place on this a layer of fermenting stable manure 9 inches deep and 2 feet wide, with some leaves if you have them, pressing the heap down firmly. This will afford a slight bottom-heat to give the plants a good start and for the roots to permeate later when the plants are bearing heavy crops. On this manure place a layer of soil composed of the following: To a barrow-load of good turfy loam add a peck of partly decayed leaf-mould and two pecks of well-decayed manure; spent Mushroom-bed manure answers the purpose very well. Sow the seed in this layer of soil as soon as it is formed 2 feet apart, two seeds together, in case one fails. If both germinate, the weakest plant must be dispensed with and only one allowed to grow. At this time of the year the plants, once started, will grow rapidly and soon reach the trellis, and should give a few fruits in from six to eight weeks from sowing. The Cucumber revels in a high, moist temperature. Ventilation during sunny days must be given in the morning to prevent the temperature rising too high, that is to say, from 75° to 83° Fahr. In the afternoon, when the sun is on the decline, say, about 3.30 p.m., the plants should be copiously syringed and the house immediately closed, by which action (for a short time) the temperature will be considerably raised, possibly reaching 85° to 88° with advantage. Cucumber plants in good health are better without shade; but if not healthy, then slight shade should be applied during the hottest part of the day. If there is no stage in your house, the bed may be formed on the floor in the same way as above stated, only 3 inches should be added to the depth of the manure. If it is only a frame that you have, a hot-bed will have to be formed in the usual way and the same sort of soil added. You must not plant out the plants until the bottom-heat has declined to 70° Fahr. The after-treatment as regards temperature, syringing and closing up will be the same as advised for house culture. The plants cannot be fruited in so short a time in a frame as in a heated house.

MISCELLANEOUS.

Book on Violets (*Chloe*).—THE GARDEN has always given wide and special prominence in its pages to the growth of the Sweet Violet. It was the subject of a prize essay in our issue for January 5 1907, and this we think you would do well to consult. We know of no book devoted exclusively to Violets, but there is one published at this office on Violets and Pansies, post free 3s. 10d.

Grubs for inspection (*T. H.*).—Your box No. 1 contained specimens of a caterpillar very much dried up, but they were probably those of Hepialus lupulinus, the garden swift moth. They were most likely the cause of most of the mischief. A dressing of Kilogrub or some similar compound should be useful. No liquid insecticide is of any use. In No. 2 the grub was assuming the chrysalis condition and was so altered in appearance that I cannot say what it was. No. 3 contained specimens of the grub of a beetle, but I do not recognise them. No. 4: The grubs are those of one of the carnivorous ground beetles, but I cannot say of what species. They, like their parents, feed on smaller insects, &c., and are of considerable use in gardens in this respect. I could not find any insects among the moss.—G. S. S.

Slime in pond (*Brilliant*).—It is highly probable that the slime weed is contained in the water itself in your case, and we should quite expect to see it in the new pond also. The sulphate of copper only destroys the growing plants, but there may exist a large number of seeds also, and these continue to spring into life from time to time. We fear we can only recommend you to drag the pond frequently, and in this way endeavour to weaken its growth.

Book on Flora of Cape Colony (*C. S. Gordon*). We are sorry to say that we do not know of an illustrated inexpensive book on the Flora of Cape Colony. The majority of books on the subject are expensive ones and usually not illustrated. "The Genera of South African Plants," by William Henry Harvey, M D., F.R.S., &c., 1868, published by Longmans, Green, Reader and Dyer, London, is one of the cheapest. "Flowering Plants and Ferns of the Cape Peninsula," by Harry Bolus, F.L.S., and Major A. H. Wolley-Dod, published in October, 1903, in the Transactions of the South African Philosophical Society, Vol. XIV., Part 3, is also a useful work. Perhaps if you tried a secondhand book shop you would be able to obtain one of the more expensive works at a moderate price.

Names of plants.—*A. C. T.*—Cratægus coccinea. —*J. F.*—Pyrus floribunda. —*M. E. P.*—Ligustrum lucidum tricolor and Spiræa arguta. The small yellow Azalea is Rhododendron flavum and the others are forms of R. sinense (Azalea mollis). —*D. W. L.*—Primula Forbesii.—*K. E. J.*—Tragapogon pratense.—*Grain.*—Ledum latifolium.—*Rev. Gordon Wickliary.*—Collomia coccinea. —*G. Rea.*—1, Staphylea pinnata; 2, Phlox subulata Nelsoni; 3, P. lilacina; 4, P. amœna; 5, Saxifraga Wallacei; 6, Rhododendron catawbiense fastuosum fl.-pl.; 7, R. c. variety.

PRIZES FOR READERS. JUNE.

THE PRINCIPAL INSECT FRIENDS AND FOES OF THE GARDEN, AND THE BEST MEANS OF EXTERMINATING THE LATTER.

A First Prize of FOUR GUINEAS,
A Second Prize of TWO GUINEAS,
A Third Prize of ONE GUINEA,
And a Fourth Prize of HALF-A-GUINEA

are offered for the best essays on the above subject.

The notes (restricted to 1,500 words) must be written on one side of the paper only, and be enclosed in an envelope marked "Competition," addressed to "The Editor of THE GARDEN, 20, Tavistock Street, Covent Garden, W.C." The essays must reach this office not later than Wednesday, June 30. Both amateur and professional gardeners may compete, but it is hoped that those who contribute regularly to the pages of THE GARDEN will not do so. The name and address of the competitor must be written upon the MS., and not upon a separate piece of paper. The Editor accepts no responsibility for and cannot undertake to return the MSS. of unsuccessful competitors. The Editor's decision is final.

SOCIETIES.

SCOTTISH HORTICULTURAL ASSOCIATION.

THE monthly meeting of the Scottish Horticultural Association was held in the Hall, St. Andrew Square, Edinburgh, on the evening of June 1. There was a good attendance, presided over by Mr. James Whytock, Dalkeith Palace Gardens, president of the association. The exhibits before the meeting were excellent, but cannot be detailed for want of space. They included exhibits from Messrs. Dicksons and Co., Edinburgh; Mr. John Downie, Edinburgh; Messrs. Dobbie and Co., Rothesay; Mr. D. W. Thomson and others. The paper of the evening was by Mr. Mungo Chapman, Torbrex Nurseries, Stirling, the subject being "The History and Introduction of Fruit-bearing Plants into Britain." Mr. Chapman gave a capital account of the different fruit-bearing plants and of their introduction, giving many details regarding them not commonly known, and showing that he had devoted much time and research to the study of his theme. The paper was much appreciated, and after the discussion, which was generally appreciative, the chairman conveyed the thanks of the meeting to Mr. Chapman.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C

THE NATIONAL VEGETABLE SOCIETY.

WE are pleased to announce that, mainly through the correspondence which appeared in THE GARDEN some weeks ago, wherein was advocated the need for a National Vegetable Society, such a society has been formed, and we give below the objects and rules which have been drawn up and passed by the committee. The need of such a society must be evident to all who cultivate vegetables; and even those who only consume them realise that there is much work in the way of improvement to be done. When we consider the value of vegetables as compared with that of flowers, the necessity for such an organisation will be apparent to all our readers. Finance, of course, will be the most important feature in the success or otherwise of the National Vegetable Society; but, after reading the objects and rules, subscriptions should not be difficult to obtain. Undoubtedly there is now an increasing interest taken in high-class vegetables by owners of gardens, gardeners (both amateur and professional) and also by salesmen, and to foster this interest will be one of the aims of the society. Another important feature will be the holding of trials. This to the ordinary individual may present difficulties, but there are some earnest, practical men on the committee, and the holding of trials will, we venture to predict, not present any serious difficulties, and will produce most useful and far-reaching results.

Then there will be the promotion of exhibitions of vegetables or the arranging of classes for them at various horticultural shows throughout the country. Apparently in the past we have been carried away, so to speak, by the love of flowers, and consequently vegetables have not been sufficiently considered. As much or even more skill is needful to produce high-class vegetables as flowers, and this skill should be duly acknowledged by all horticultural societies, and not ignored, or nearly so, as is now the case. That vegetable exhibits can be made attractive has been proved by our best growers. What the committee wants now more than anything else is members, and we appeal to our readers to support this important and far-reaching movement. The annual subscription is not a large one. The hon. treasurer is Mr. G. Wythes, V.M.H., Hopefield House, Windmill Road, Brentford, W., to whom subscriptions should be sent. The hon. secretary is Mr. E. G. Quick, Kelmscott, Harrow View, Wealdstone, Harrow, from whom particulars can be obtained.

OBJECTS AND RULES OF THE SOCIETY.

1. The title of this society shall be "The National Vegetable Society," and its object shall be to promote the wider cultivation of vegetables as food products, to encourage their consumption as food, to promote exhibitions of such products, whether competitive or otherwise, and to hold trials under such conditions as may offer with a view to finding the best varieties to commend for general culture and to ascertain commercial values when grown under ordinary conditions.

2. Membership shall be open to all persons who will pay an annual subscription of not less than 5s., and who are in entire agreement with the objects above stated.

3. Executive body.—The governing body of the society shall be a president, vice-presidents, treasurer and secretary, who, together with an executive committee not exceeding twenty-four members, shall be elected annually.

4. Annual meeting.—An annual general meeting of all members shall be held in the month of January each year, when the report of the committee's work for the previous year shall be read, and a duly audited balance sheet of accounts presented. The annual election of officers and committee shall also then be held. Two auditors shall be elected at such meeting.

5. Meetings of the committee shall be convened by the secretary from time to time as the business of the society may require, as the committee itself shall determine, or on the request of any four members of the committee, such request to be made in writing to the secretary. The committee shall elect its own chairman and vice-chairman at its first meeting immediately following the annual general meeting.

6. Subscriptions become due on the first day of the month of January in each year, and should be paid through the treasurer, who shall forward an official receipt to the member for the same at the earliest possible date. All cheques should be made payable to the National Vegetable Society.

7. All members will be entitled to vote at the general meetings, and also be eligible for election on the executive committee. Members will also be entitled to receive copies of any reports or publications issued by the society and to exhibit at any show or in any classes arranged by the society.

8. All trials conducted by the society shall be thoroughly impartial and designed to elicit useful information. They shall be under the control of a special trial sub-committee of not less than three members, who shall be responsible to the general committee.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

June 28.—Isle of Wight Rose Society.
June 29.—Southampton Royal Horticultural Society's Rose Show (two days).

Honour for Messrs. Joseph Bentley.—Messrs. Joseph Bentley, Limited, of Barrow-on-Humber, Hull, have been granted the Royal Warrant of Appointment as Horticultural Chemical Manufacturers to the King.

The Gardeners' Royal Benevolent Institution.—The seventieth anniversary festival dinner in aid of the funds of this institution will be held at the Hotel Metropole on Wednesday, June 23, when Lionel de Rothschild, Esq., will preside. Contributions to be placed on the chairman's list are earnestly solicited, and may be sent to Lionel de Rothschild, Esq., New Court, St. Swithin's Lane, E.C., or to the secretary, Mr. G. J. Ingram, at the offices, 175, Victoria Street, Westminster, S.W.

Victoria Medal of Honour for Mr. R. Wilson Ker.—On Tuesday, the 8th inst., the council of the Royal Horticultural Society conferred the honour of the Victoria Medal of Honour upon Mr. R. Wilson Ker, the well-known horticulturist of Liverpool. All who know Mr. Wilson and the immense amount of good work that he has done for horticulture will agree with us that the honour is conferred where it is thoroughly deserved.

Flowers at the White City.—The grounds around the Canadian Pavilion, on the occasion of the opening of the Franco-British Charity Fête and Bazaar at the White City, were placed at the disposal of Messrs. Kelway and Son, the well-known horticulturists, of Langport, Somerset, for the display of some of their celebrated improvements in hardy border flowers, which they have kindly given and planted for the purpose. The grounds surrounding the Australian and Indian Palaces at the Imperial Exhibition have also been beautified by Messrs. Kelway and Son, who have as well an exhibit already in full flower in the Court of Progress.

Harry Veitch Portrait Fund.—The following is a list of subscribers received up to date. If anyone else is desirous of co-operating, they are requested to do so at once, as the list must be closed in a few days' time. It is hoped that the fund may allow of sending a photogravure to every subscriber of £1 1s. and upwards. Cheques should be made payable to either H. B. May, Stanmore, Chingford; or to the Rev. W. Wilks (treasurer), Shirley Vicarage, Croydon. Baron Schröder, J. C. Williams, Sir Trevor Lawrence, Bart., K.C.V.O., Colonel Holford, C.I.E., C.V.O., Lord Rothschild, Leopold de Rothschild, Alfred de Rothschild, J. Gurney Fowler, James Hudson, V.M.H., James Sweet, V.M.H., N. N. Sherwood, V.M.H., Jos. Rochford, E. A. Bowles, Sir Albert Rollit, E. Ledger, Colonel the Right Hon. M. Lockwood, C.V.O., M.P., J. Jacques, O. Thomas, V.M.H., A. H. Pearson, J. F. McLeod, F. Sander, V.M.H., A. Dean, V.M.H., G. J. Ingram, the Earl of Ducie, James O'Brien, V.M.H., R. H. Pearson, W. J. Nutting, W. Robinson, Rev. Professor Henslow, V.M.H., E. Mawley, V.M.H., Norman Cookson, Sir Daniel Morris, K.C.M.G., V.M.H., Lawrence Currie, H. G. Cove, A. Watkins, Stuart H. Low, C. J. Lucas, Fred W. Moore, V.M.H., Professor Church, Professor Bateson, F.R.S., R. G. Thwaites, E. Beckett, V.M.H., Edmund Rochford, E. C. Mott, W. Y. Baker, W. Iceton, G. Cuthbert, James Walker, W. Sams, G. Bunyard, V.M.H., G. Paul, V.M.H., Sutton and Sons, G. Monro, V.M.H., W. Bain, S. T. Wright, Sir Jeremiah Colman, Bart., Sir John Aird, R. W. Wallace, W. Crump, V.M.H., E. T. Cook, R. C. Sanders, W. T. Ware, J. Douglas, V.M.H., C. H. Curtis, A. L. Wigan, W. J. Jeffries, H. Ballantine, V.M.H., J. Green, J. Howe, W. H. Page, H. Little, W. Bates, W. H. Thomson, H. A. Tracy, Robert Sydenham, C. Scrase Dickins, Protheroe and Morris, A. J. Monro, Right Hon. Joseph Chamberlain, M.P., A. Kingsmill, Herbert Adams, Rev. F. Page-Roberts, W. P. Horton, W. Goldring, Oswald Wrigley, Colonel Beddome, T. Turton, Charles Ross, V.M.H., Professor Bayley Balfour, C. Allen, Lady Theodora Guest, W. A. Bilney, C. C. Hurst, H. G. Alexander, Clay and Son, James and A. McBean, N. F. Barnes, Frank Reader, Waterer and Sons, C. R. Fielder, Sir Edmund Loder, Bart., C. E. Shea, F. Menteith Ogilvie, W. Waters Butler, Miss Willmott, V.M.H., Sir John Llewelyn, Bart., W. E. Gumbleton, the Lady Wantage, Barr and Sons, S. M. Segar, J. C. Grieselbrecht, W. Bennett, E. White, D. W. Thomson, G. H. Richards, Charlesworth and Co., Romain de Smet, Walter Cobb, Pierpont Morgan, Sir Frank Crisp, R. C. Notcutt, T. Rochford and Sons, Dobbie and Co., John Jennings, T. Perkins and Sons, Mrs. Earle, A. J. Gaskell, D. S. Thomson, T. Rivers and Son, C. Dixon, W. Marshall, V.M.H., W. H. White, Sir Joseph Hooker, F. J. Hanbury, Louis Gentil, George Woodward, W. G. Baker, Percy D. Williams, Thomas Coomber, E. H. Woodall, W. Earp, Francis Wellesley, R. A. Milligan Hogg, R. Irwin Lynch, V.M.H., E. H. Jenkins, Charles Smith and Sons, John Seden, J. Butler, G. Reuthe, M. Koster and Sons, A. MacKellar, T. Edwards, Alexander Dickson and Son, J. Jacob, Albert Brassey, Pulham and Son, J. Cypher and Son, A. A. Peeters, Mrs. W. Thompson, W. Thompson, W. Stevens, Charles Winn and family, and R. Brooman White.—H. B. MAY, W. WILKS, *Joint Hon. Secretaries.*

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Flower beds and borders for beginners:—I have read with interest Mr. Boome's article on "Gardening for Beginners" in your issue of May 22. What strikes me, however, is that, although the borders he describes are, no doubt, beautiful, they are too expensive, and require more time and attention than an ordinary amateur gardener can afford. As a rule, the owner of a small garden wishes to have it beautiful, certainly, but at the least expense with the least recurrent labour. Mr. Boome mentions "greenhouse and frames," "light syringing of the soil and sides of the frame morning and afternoon," "a store house not less than 50 feet by 8 feet, with a minimum temperature of 50°," &c. Plants such as he describes need almost daily attention during the winter, besides a great deal of labour and care at planting-out time, if not subsequently. For the sake of those of your readers who have gardens, but who find Mr. Boome's plan rather too elaborate, permit me to describe mine. I have an ordinary suburban house with about three-quarters of an acre in all, wooden fences all round except the front. The soil is sandy, dry and poor; manure costs 7s. 6d. to 10s. a load; labour 4s. to 5s. a day. When I first took the house there was not a bush, tree nor shrub at the back; all we had was bare fences, with kitchen garden and grass in a very rough state. There is now no fence to be seen and the adjoining houses are screened. My plan was to reduce labour to a minimum and yet have a pretty garden. I purchased shrubs and trees more or less of the flowering type. These, although planted without manure, have done grandly; they can be bought very cheaply and compare very favourably with the prices which one would pay for the plants mentioned by Mr. Boome. For instance, for high background large trees 15 feet high or more can be purchased from 1s. 6d. each if the purchaser takes the risk of their surviving the removal. Flowering shrubs and trees—and the variety is simply marvellous—can be obtained at the cost each of single Geranium plants of any size. The benefit of having permanent borders is that they can be kept in order with very little labour, and there is practically no watering required. With the exception of two borders around the house I have no bedding out, and one man for half a day to a day a week in the summer is quite sufficient to keep the place in very good order. Needless to say, I have some plants, bushes or trees flowering from spring to autumn.—BEGINNER, *Hants.*

Pancratium maritimum.—It appears to be but little known that Pancratium maritimum is as hardy as it is beautiful. No amount of frost appears to affect it, and it is equally indifferent to heat and drought. The plants in my garden are crowded with blossoms this year.—AN EXMOUTH RESIDENT.

Artificial manures.—Referring to the letter of "A User of Spent Hops" under this heading in THE GARDEN of May 29, I should be greatly obliged if the correspondent would inform me, as an amateur, whether he has dispensed altogether with farmyard and other natural manures for all crops, using only (1) spent hops, (2) superphosphates, and (3) sulphate of potash in the proportions stated. Natural manure seems to be full of weed and vermin, and I should be glad to dispense with it.—A. W. M.

Polystichum lonchitis.—As a regular reader of your excellent journal, I wish to point out that on page 281 the illustration given (No. 4) with reference to the article by "D. B. C." is not Polystichum lonchitis, neither do I think it would be generally considered a suitable plant for a room; evidently the illustration is Cyrtomium falcatum, which would be a good plant for the purpose. These plants are each often called the Holly Fern—one is British, the other exotic—and it seems rather to lead to confusion; whereas, if the botanical names only were used, this difficulty would not arise and the public would soon get accustomed to them. A worse feature which one often hears is that of calling Asparagus plumosus a Fern, against which I fear there is very little remedy.—F. N. ADKIN.

The Snowy Mespilus in America.—Your illustration of the Snowy Mespilus on page 239 interested me very much, though I give it a less poetic name; it is known here as Shad Bush, Juneberry, or Service Berry. It is one of the first signs of real spring in the New Jersey lowlands, making a mass of feathery white where all else is bare save Alder, catkins and Pussy Willow. The longshore name of Shad Bush is given because it is in bloom when the shad, the most aristocratic member of the herring tribe, is running along our coast, just as the trailing Arbutus (Epigæa repens) is called Shad Flower on the Jersey Coast. The true Amelanchier canadensis grows to a height of 25 feet or more, but there is a dwarf form, A. botryapium or oblongifolia, which usually remains a shapely tall bush rather than a small tree. The Huckleberry-like fruit is very pleasant, but is usually greedily devoured by birds before fully ripe. A garden variety, the Success Juneberry, grows about 4 feet high and fruits very freely. The Juneberry is but little planted here as an ornament, perhaps because of its familiarity, yet its early beauty is not excelled by any other tree blooming at the same time. Just at present our leading woodland beauty is the native Dogwood (Cornus florida), which makes a sheet of white among the other trees. I am told it does not bloom nearly so freely in Europe. Its vivid autumn foliage makes it doubly valuable.—EMILY TAPLIN ROYLE, *Maywood, New Jersey.*

Oak tree and Rhododendron.—It may be of interest to you to know that on a branch of a very old Oak tree here there is a self-planted Rhododendron with about twelve blooms on it now.—BESSBOROUGH, *Piltown, Ireland.*

Rhododendrons in the Royal Botanic Gardens, Regent's Park. I think all lovers of Rhododendrons must congratulate Messrs. Waterer and Sons on their grand display at the Royal Botanic Gardens; all colours, from the palest pink to the deepest crimson, and some lovely specimens of creamy and pure white. Among the most telling were Lady Eleanor Cathcart, clear rose with crimson spots; Frederick Waterer, intense fiery crimson, a free bloomer and very beautiful; Minnie, bluish white with large blotch of orange spots, most telling; and, last but not least, banks of that exquisite hybrid, Pink Pearl. Messrs. Barr and Sons had a small tent showing a fine collection of their dwarf Japanese trees, a most interesting exhibit of Iris germanica, a small rock garden, and the colours of Ranunculus Mrs. P. V. Darwin (Sicilian strain) and R. Single Scarlet, from Palestine, flashed their beauty across the tent.—CHARLES CROSBY, F.R.H.S.

Notes from a Surrey Rose garden.—I have been much interested in "P.'s" notes on the Lyon Rose, but am glad to say that in one respect my small experience differs from his. I obtained two or three plants from the raisers a couple of years ago and imported three or four more last autumn. I have now six dwarfs of that variety, and all of them have proved very hardy with me. We had 32° of frost one night last December, quite abnormal for this part of the country, and severe night frosts well into May; but the plants have not suffered at all, although many other Roses have been cut down almost to the ground. With other varieties I have experienced the dying back of long and, apparently, healthy shoots after they had begun to make leaf, which has, I believe, been rather a feature—and an unpleasant one—of this year's Rose growth, but not with the variety in question. The caterpillar pest has been very virulent in this district this year, and my Roses have also suffered greatly from the ravages of ants. I should be interested to know whether other rosarians have not found that these insects (never included among Rose pests) do much damage, particularly to dwarf plants, and if there is any remedy. One is always told that the harm they do is only indirect, namely, by carrying green fly to the shoots; but my experience of several years is quite contrary to this. The ants have literally eaten hundreds of buds off my Rose plants this season. On inspection a few ants are seen on a bud, and, when touched, the inside is discovered to be teeming with the insects which have hollowed it out. Constant stirring of the soil round the Roses is the only palliative I have ever discovered; but it is far from successful, as they collect again rapidly. With this, as with most pests, I find certain varieties attract the insect more than others. Caterpillars are found far more frequently on certain Roses than on others. For instance, Frau Karl Druschki I have always noticed to be one that is particularly attractive to the winter moth, and the ravages of the caterpillar are very disastrous in consequence. I think it would be of great use to amateur rosarians if your valuable paper were to publish a list of those Roses most prone to be destroyed by caterpillars and also by mildew. It would then be easy to concentrate one's forces in using preventive measures on those varieties early in the season by the arsenate of lead spraying for the first and V2K syringing for the second. This latter I believe to be a new and a very valuable aid for the suppression of mildew, if used in time and not of too great a strength. It would also be interesting to learn if other Rose-growers have found, as I have, that many of the new Hybrid Teas are particularly free from insect trouble of all kinds. This would be an encouraging fact and one to make the new type even more popular. In my own experience the following are wonderfully clean: Lady Battersea, Betty, Mrs. Peter Blair, M. Joseph Hill, Mme. Jenny Guillemot, General McArthur, Mme. Melaine Soupert, Countess of Derby, Mme. Constant Soupert, and, in a less degree, J. B. Clark, Lady Ashtown and also the Lyon Rose and the newer China Teas, Comtesse du Cayla, Mme. Laurette Messimy, Mme. Eugène Resal, &c. Most of the above need very little attention to keep them quite unspoilt by caterpillar, sawfly, aphis, &c.; but it is not their position in the garden that accounts for this, as, in many instances, dwarf bushes alongside and standards above them are terribly afflicted by the very pests from which they are free. I am personally inclined to attribute it to the fact of their young foliage being in most cases reddish—not the vivid green of Frau Karl Druschki, which appears to be so fatally attractive; but if the readers of THE GARDEN are able to offer any more plausible solution, I shall be very grateful.—P. M. A.

The beautiful Meconopsis integrifolia.—I send you a photograph I have taken of a patch of the beautiful Poppy from Thibet, Meconopsis integrifolia, growing in this garden. I have seventy-five plants together, raised from the seed of plants which flowered here.

A CLUMP OF MECONOPSIS INTEGRIFOLIA.

Some have borne as many as eleven flowers, and it has been a glorious sight. It appears to be quite easy to grow in a damp, sunny place, with good drainage and sandy peat to root in. These plants have had no protection whatever through the winter.—W. A. MILNER, *Totley Hall, Sheffield.*

Mr. Harry J. Veitch, V.M.H.—I was greatly pleased to read in THE GARDEN of May 29, page 262, the excellent proposal to have Mr. Veitch's portrait painted and hung permanently in the buildings of the Royal Horticultural Society. It will make a splendid and truly appropriate companion picture to that of his worthy father, the late Mr. James Veitch, the founder of the great Veitchian establishment at Chelsea, still controlled by "Mr. Harry," as he is affectionately called by those who know him. I first came into contact with him at the Great International Horticultural Exhibition of 1866, of which memorable event he is now the only survivor of the executive committee which brought it to such a triumphant issue. You rightly refer to the assistance he (Mr. Harry Veitch) has individually rendered—personal, as well as financial—to the great gardening charities. Look at what he has done, for such a length of time, as hon. treasurer of the Gardeners' Benevolent Institution! At one of its annual dinners a "record" subscription list was obtained when he presided at the festive gathering. To that splendid charity, the Gardeners' Orphan Fund, he (personally), Mrs. Veitch, other members of his family and his firm have contributed in a most generous manner. Here is a little "personal note" showing Mr. Veitch in his business capacity (and he is one of the keenest business men in the horticultural world; hence the high standing of the house) and as a private gentleman. He was leaving London for a great provincial exhibition and gave the writer a shilling to send off a telegram to Mrs. Veitch. The next time I met him, at the Royal Horticultural Society's floral committee meeting at South Kensington, I gave him the change; he took it, as he had a perfect right to do. Some time afterwards I had a domestic affliction, and here the truly sympathetic and practically kind nature of the man "came out"; he sent me a cheque for £5. I knew a head-gardener, one who had occupied a good position. He died, poor fellow, of that terrible scourge, cancer. I went to visit him at Cambridge shortly before his death. I read there a letter he had received from Mr. Veitch, couched in a truly Christian spirit, full of tenderness and pity. "Mr. Harry," "full" of business though he was, yet found time to pen this "message of hope" to my dear old friend. This act will always be cherished as a "green spot" in my memory. Gardeners, and all connected with the gentle art, where you can possibly do so, I ask you not to be backward in coming forward to support this excellent project of perpetuating the honoured memory of a right worthy man, a "shining light" in the ancient and honourable craft of gardening.—J. B.

Vitality of Orchids.—Just to show what a lot of ill-treatment Orchids can stand I may mention the following facts. Some time towards the end of last year a case of Orchids was shipped for me from Rangoon through Messrs. Thomas Cook and Sons, who, for some unexplained reason, shipped the box to Shanghai (instead of Hongkong) to their forwarding agents, Messrs. Schiller and Co., who again, for some unexplained reason, kept the box, which arrived in Shanghai in January and bore a full address in Foochow, until about a fortnight ago—that is, nearly four months. The box arrived here a few days ago, and, strange to relate, a comparatively small proportion only were dead (such as Dendrobiums), while others, in spite of all this maltreatment, showed signs of life and may still survive. Among the latter are Cymbidiums, Coelogynes, Pleione, Bulbophyllum and even a Cypripedium.—G. SIEMSSEN (German Consul), *Foochow, China.*

THE FLOWER GARDEN.

THE HARDY PRIMULAS.

(Continued from page 289.)

PRIMULA FORTUNEI is a plant of which the origin is obscure. It has been in cultivation for a long time, but is still rare owing to its habit of generally dying off after flowering. Seeds are, however, produced freely and germinate readily if sown at once. It appears to be intermediate between P. denticulata and P. farinosa, with the leaves of the former and the flowers of the latter. It requires to be kept in a cold frame during the winter months, and owing to its early flowering is a useful plant for the alpine house when grown in pots.

P. frondosa. — A beautiful free-flowering species from Thrace. It may be described as a large-leaved P. farinosa. It is quite hardy in this country, and will grow well in a half-shady place, planted in moist sandy peat and loam. It is a true perennial, and may be increased readily by dividing the crowns as soon as the plant has done flowering. It is one of the most useful early flowering Primulas for growing in pans for the alpine house, and is one of the easiest to grow.

P. glaucescens (P. calycina) is found on calcareous mountains near the Lake of Como, and is closely allied to P. spectabilis, from which it is chiefly distinguished by its bluish grey leaves having a horny edge, and by the lobes of the corolla being incised to one-third of their depth. The large, handsome flowers of a carmine lilac colour are produced in March and April. It may be grown in fissures of rocks or old walls in half-shade, fixed in with loamy soil.

P. glutinosa comes from the Central and Eastern Alps, growing in granitic soils. Although found in large colonies in a wild state, it is difficult to cultivate successfully in this country. Moist peaty soil mixed with sphagnum suits it best. The flowers are of a brilliant purple blue, borne on stems about 4 inches high. There is also said to be a white variety.

P. grandis.—A native of the Caucasus up to an elevation of 10,000 feet. This plant is conspicuous for its large, handsome foliage and umbels of small, drooping yellow flowers. The flower-stems are over 1 foot high, but it is said to reach double that height in its native habitats growing in wet soil. In this country it grows well in moist, loamy soil and flowers freely. It may be increased by division, and it also ripens seed.

P. hirsuta (P. decipiens).—A granite-loving plant found on the Alps and Pyrenees at elevations of 2,000 feet to 7,000 feet. It forms rosettes of glandular pubescent leaves that are coarsely toothed at the edge, while the flowers, of a purplish crimson colour, are produced two or more on a stalk about 4 inches long. It may be grown in cracks of rock or fissures between large stones, or it may be planted in pockets in the rock gardens in a mixture of sandy peat and loam with plenty of broken stones mixed with it. It is somewhat variable in colour, and perhaps the most beautiful and easily grown form of it is the plant that is known in gardens as P. nivalis, or, as it should be, P. hirsuta var. alba. This has lovely pure white flowers, and increases freely in many places planted in ordinary borders. Plants known in gardens under the name of P. ciliata and vars. coccinea and purpurea are forms of this species.

P. integrifolia comes from the limestone Alps and Pyrenees, and, like P. glutinosa, is said to grow in crowded tufts, forming quite turfy masses. It is easy to grow in a half-shady place planted in sandy loam and broken limestones, but the lilac rose flowers are not produced very freely.

(To be continued.)

SWEET PEA CHAT.

COMING FIGHTS.—Next month will see exhibitors of Sweet Peas facing the judges in competitions in all quarters of the country, and it is to be hoped that, win or lose, the peculiarly excellent fellowship that prevails in the Sweet Pea world will be more than maintained. We cannot all be winners every time, and those who cannot take a beating in good spirit should keep themselves aloof from the fighting arena entirely. Each grower should teach himself to regard the exhibition not simply as a place where he may make money or gain cups, but where he may measure his strength with others who are equally as enthusiastic growers and exhibitors. The money-grabber and pot-hunter is a being, scarcely human in his senses, who should never be known in association with things as clean and as pure as flowers. When one is beaten, let one look at the rival exhibits coldly and dispassionately, measuring up the merits and demerits of one's own flowers from the same standard as one does those arranged by one's opponents, and one will soon come to where in what particular direction one's weakness and strength lie. Judges are obviously fallible, but they do not make many errors, whereas they are blamed for scores. In the horticultural world we are blessed with men of absolute probity, whose one desire is to do justice to the exhibits placed before them irrespective of whence the flowers have come or whither they will go.

COARSENESS.—Well as we now are in advance of the principal shows, it will be an opportune moment to urge the avoidance of coarseness. During the past two or three seasons Sweet Peas have been honoured with prizes which ought certainly to have been ignored and which were as nearly ugly as it is possible for such an artistic and charming flower as the Sweet Pea to be. Their only recommendation was size. The craze for stems 20 inches to 24 inches in length has resulted in the development of blooms badly set on the stem, of poor form, wretched colour and nearly as flabby as the proverbial dishcloth. By the rule they probably measured something out of the common, but mere superficial area by no means makes a perfect Sweet Pea. Assuming that it is carrying four well-placed flowers of good size, substance and colour, the 16-inch stem will beat that 20 inches in length nine times out of ten, for the latter almost always shows the serious defect of having the blooms set too far apart and commonly facing all ways instead of almost directly towards London. There is, of course, some danger that the man who persists in exhibiting the exquisitely refined sprays that are characteristic of the flower will lose when facing judges who are not fully equal to the task; but one would far rather see such exhibitors leave the arena altogether than depart a hair's-breadth from their principles.

THREE GREAT GATHERINGS.—In July the three great gatherings of the year will be held. On the 15th the National Sweet Pea Society will hold its provincial exhibition in association with Saltaire, and, given favourable weather, the display will be splendid, for the northern growers are nothing if not supremely enthusiastic; on the 23rd the National Sweet Pea Society foregathers at the Royal Horticultural Hall, Vincent Square, Westminster, when there will be royal battles for the Sutton, Eckford, Breadmore, Burpee, E. W. King and Horace Wright Challenge Trophies, not to mention the several other smaller cups and handsome money prizes; while at the same hall on the 28th there will be THE GARDEN Show, so magnificently inaugurated last summer. The latter show last year was almost as good as any Sweet Pea show in the country, and there is not the smallest room for doubt that if the present summer happens to continue a trifle late the Sweet Peas on the 28th will rival in numbers and quality those staged at the National Sweet Pea Society's show.

SPENCER.

THE KITCHEN GARDEN.

SMALL WINTER CABBAGES FOR AMATEURS.

GOING through a large garden several times during the winter, the owner, an enthusiastic amateur, was lamenting the want of good winter greens, and also the hardiness of the Brassicas in general; but the fault was with the cultivation, not the variety. The value of good, small, sweet Cabbages from December to March, a period of the year when there is a lack of this vegetable, is well known. It is somewhat difficult to advise on the culture of winter vegetables at this season of the year, as the work does not appeal to the amateur just now, when a host of other things need attention; but to be successful in gardening one must ever be on the alert, and a good cultivator must think a long time in advance.

To get a good crop, winter Cabbages must be sown in June and planted out in July or early August. I have sown early in July with excellent results, but if sown then the seedlings should receive ample attention. It is well to plant out in a small state, not allowing the plants to become drawn in any way. Thin sowing is important, as a stronger plant is secured when there is no crowding. I advise a rich seed-bed to get rapid growth; but this does not apply so forcibly to their permanent quarters, where I prefer land that was well manured for a previous crop; indeed, I go further and advise a firm or hard soil in land at all light, so that the plants may make sturdy growth, as they will then come through our changeable winter with very little damage, providing the true winter types are cultivated.

The seed should be sown in an open position broadcast, and in a dry season moisture will be necessary to assist germination, and much help is afforded, when the seed-bed is small, by covering the surface with mats, as from the start to the finish there must be no check. The best winter Cabbages are compact, having few outer leaves, and they are mostly very short-stemmed, so that when planting they may be placed much closer than the summer Cabbages, 15 inches between the rows and 9 inches to 12 inches between the plants in an open, exposed position being a good distance.

I now come to varieties, which are not numerous, and though I have called them winter Cabbages, I should state that the varieties noted are equally useful for an earlier or autumn supply, though not usually required then. I also explain that by the term "winter Cabbages" I do not mean the Colewort Cabbages. First on the list of true winter Cabbages are Sutton's Little Gem and Favourite. The first named is a splendid, small, compact variety of Drumhead shape and remarkably hardy; it remains sound for weeks when fully grown, and is just the size for table. I have sown this variety in July and obtained excellent winter crops. Favourite is larger than the Gem, but still by no means a large Cabbage. It has a solid heart, with few outer leaves, and when fully grown remains a long time fit for use; it is a good variety at other seasons also.

Probably the best or most hardy of the winter Cabbages is the less-known Christmas Drumhead, a most valuable late variety that will remain sound for weeks through severe weather without splitting or decaying, and the hearts are noted for their good quality. Another excellent winter Cabbage is St. John's Day, a good hardy variety and excellent to follow on after the Coleworts. I can fully recommend all the above varieties, and if some or all of them are grown in the manner advised above, there should not be a scarcity of good Greens next winter.

G. WYTHES.

SIR JOSSLYN GORE-BOOTH'S LISSADELL NURSERIES.

READERS of THE GARDEN probably know Lissadell best as the place from which beautiful Daffodil blooms come to our spring shows. If, however, I were to write about Lissadell and to confine my remarks entirely to Daffodils, I would only convey a sort of half-truth impression of what is going on there and of the wonderful energy and prescience of its owner, Sir Josslyn Gore-Booth. This is neither the place nor the occasion to dwell upon the difference between a good and a bad landlord, or upon the great question of how to get people to live in the country; but I must say this much: If a practical recognition of local feeling and an industry-creating helping hand count for anything in coming to a decision on the first of these problems, you will find a man living ten miles north-west of Sligo in a large and somewhat severe-looking, grey-stone house whose life is an embodiment of these principles, which are in this particular instance so successful in their application that, not only do they enable many of his poorer neighbours, who otherwise could not, to live in the country, but they are able to keep in his own quiet and remote home the man himself whose early associations and upbringing pointed rather to his living a wanderer's life. The Daffodil farm, large as it is, is not Lissadell. It is but one of the ten departments into which the business of the place is divided. An enumeration of these and their separate activities will enable readers to realise how it is that £100 a week is paid away in wages. (1) Bulb farm. (2) Herbaceous and alpine plants. (3) Commercial gardens—Strawberries, Tomatoes and cut flowers. (4) Farm department—early eating and seed Potatoes. (5) Dairy—butter by post. (6) Poultry farm—chickens, ducks, turkeys and geese. (7) Nursery—forest trees and shrubs. (8) Sawmills—planking and boards, flower-boxes, &c. (9) Barytes—mines and mills. (10) School of needlework (under Lady Gore-Booth).

Lissadell is a big thing, too big for Sir Josslyn alone, even if he had no outside interests and were not a member of the Board of Agriculture and chairman of the directors of the local railway, and had no clothing manufactory to look after in Sligo, or some three or four co-operative creameries on which to keep a watchful eye. Fortunately, he has found in Mr. J. A. Cooper a splendid right-hand man, and with his help and the help of able managers, who look after their several departments, he is able to successfully control his many undertakings. Last April I paid a flying visit to Lissadell to see the Daffodils and spent a most enjoyable day with Sir Josslyn. He showed me the different fields where they were grown, and I was immensely impressed with their wonderful luxuriance.

I have never seen such flowers of Victoria anywhere, and I hardly knew Katherine Spurrell—it was so good. There was a large batch of Golden Bell, which is one of the freest of Daffodils. I also noticed Judge Bird, which is a fine large bicolor, with a perianth that reminds one of that of Glory of Leiden and a stem that will stand bad weather. The beautiful white, large-trumpet Mrs. Robert Sydenham was just coming into flower, Incognita was ready to burst its buds, the giant Sir Horace Plunkett had been depollinated and crossed with other good things, and from its faded look the cross had probably taken. It is a flower of truly noble proportion and perfect form; the trumpet is large, of a deep golden yellow and beautifully recurved at the mouth; the perianth is of a rich primrose, overlapping and quite flat, measuring 5 inches across. It is needless to describe all the varieties that were there. There was only one that was not happy, and that was obvallaris (Tenby). Why this should be the solitary exception it is impossible to say. With King Alfred rampant, with Queen Sophia suited, with Dr. Fell warm enough, why should not obvallaris thrive?

NARCISSUS INCOGNITA.

Springtime at the bulb farm in succeeding years will be increasingly interesting. The results of Sir Josslyn's experiments in hybridising are now beginning to unfold themselves, and one can imagine how he will go each morning to the beds to see what "the King has sent him," and how his able manager, Mr. Joseph Sangster, on his flying visits home between the shows will hasten there to look if there is anything better than Pixie or finer than White Admiral. Success is bound to come sooner or later. Sir Josslyn has kept careful records of the parentages and the seed-producing properties of the different crosses, and he is using this knowledge with what cannot help but be excellent results. His is still the master mind, but he has now trained an intelligent boy to depollinate and cross, and so the seed crop is larger each succeeding year; but as there are many, many acres of good hearted land still available, there is at present no need to cry "Halt."

Apropos of the illustration of the beautiful Incognita, which never seems to be grown anywhere as it is at Lissadell (I think I could always pick out a Lissadell exhibit if it had Incognita in it), I may mention that it is an excellent variety for pots. The way this was found out illustrates how Sir Josslyn keeps his finger on the pulse of the Daffodil world. The forced bulb show of last March suggested a trial of the behaviour of the various kinds under glass. None did better than Incognita. I hope I am not divulging any State secret when I quote the note made upon this variety on March 15: "Very fine pot plant, some of the flowers extra good."

There is much more that I could say about the bulb farm and its concerns; but I must pass on with Sir Josslyn into a *negligée* looking yard full of glass houses and frames and tiny pots and seed-pans. This is where stocks of alpine and herbaceous plants are raised. It was soon evident from his conversation that he took an even greater interest in these than in the Daffodils. As we passed out of the yard we went to an old walled garden some little distance away, which more or less marks the site of the old family residence of a century ago. The upper part of the garden was on a slope, and was broken by a wall which had become the home of a number of choice plants. The illustration on page 302 shows a portion of it in its summer dress, and also, towards the top of the picture, the boundary wall and part of the well-stocked herbaceous border underneath it. The lower part of this garden was really one large

rockery, or, to be more accurate, soon will be. It is at present in the making, but when it is finished and the plants get established it will be a very great feature; and because it will contain so many rare and difficult plants it has every prospect of becoming a veritable Mecca to which lovers of rock gardens will resort to see things growing in luxuriance which they in less-favoured parts are unable to manage. Sir Josslyn takes the greatest interest in the work, and, as he said to me, he is busy ransacking all likely nurseries and gardens at home and abroad for plant treasures to add to the already large collection that he possesses.

Among the many beautiful shrubs which flourish here are Abutilon Vitifolium, Buddleia variabilis veitchiana, Calceolaria violacea and Hedysarum multijugum, while among the herbaceous and alpine plants we find Antirrhinum glutinosum, Campanulas and Primulas in variety, Ramondia pyrenaica, Astilbe Davidii, Incarvillea Delavayi, Meconopsis aurantiaca fl.-pl., Asters and Phloxes in endless variety, Montbretias new and old, Romneya Coulteri and many others. The catalogue of this department is a fairly comprehensive one when it is remembered that all the plants listed have been grown at Lissadell—very many, indeed, from *home-saved* seed. I wish I could do justice to all the rarities that are being grown in this department; the mild, equable climate, combined with a proper treatment of the individual plants, make many things possible here which are impossible elsewhere, and bring well within the range of "practical politics" the owner's hope and aim, viz., "That there will be many things which you will *have* to come to Lissadell for." JOSEPH JACOB.

A WALL GARDEN AT LISSADELL. (*See page 301.*)

COLOURED PLATE.

PLATE 1876.

RARE AND BEAUTIFUL CLEMATISES.

THE various garden varieties of Clematis which comprise the several groups known under the titles of lanuginosa, Jackmanii, patens, florida and Viticella are comparatively well known, and some of them are grown extensively in many parts of the country. Beautiful, however, as these sorts are, it is not to them that attention is particularly directed at this moment, but to other sorts, which include species and varieties that are equally ornamental and, in some instances, more easily grown, but which are not so widely known as they ought to be. The subjects of the coloured plate, for instance (C. Durandii and its variety pallida), though not really new, do not appear to be in general cultivation, or, at any rate, generally popular, in this country, though they are extremely free-flowering and of robust habit. They thrive under conditions favourable to the majority of garden Clematises, and do not appear to be troubled with the disease to which so many garden varieties fall a prey. At Kew they are grown in a bed in the open ground, and are allowed to trail naturally over rough Oak branches.

The Chinese C. montana is a well-known climber in many parts of the country, its numerous white, star-like blossoms being conspicuous on many a house and fence; but the variety rubens, which was introduced a few years ago, is not, so far, very well known. It is a duplicate of the type in growth, but the branches are red and the flowers are deeply stained with the same colour. It is without doubt one of the most important introductions of modern times, and has proved to be perfectly hardy; in fact, it is stated to succeed better in English gardens than it does in China. A good-sized mass growing over rough posts was, during May, one of the most magnificent sights at Kew, the whole specimen being perfectly covered with pretty reddish flowers, which were conspicuous from a long distance. The Kew examples are growing in loamy soil to which lime has been added, and they were propagated from cuttings. Another charming Clematis that is far too rarely met with is C. alpina, or, as it is sometimes called, Atragene alpina. This is found in the alpine limestone districts of North Europe, and is conspicuous by reason of its pretty mauve flowers, which appear in April. It thrives equally well on rough posts or on a large tree butt, and attains a height of 8 feet to 10 feet. Varieties with white and red flowers are known.

C. orientalis tangutica is the best yellow-flowered Clematis known. The type, C. orientalis, is pretty and moderately well known, but it is inconspicuous beside the variety, the flowers of which are many times larger and richer in colour, while the curious long-pointed sepals add to their attractive appearance. It is very uncommon, but will probably be met with more frequently in the near future, for it comes true from seeds. An entirely different plant from those previously mentioned is C. Flammula rubro-marginata. The common C. Flammula is well known by reason of its billowy masses of fragrant white flowers, which appear during late summer, but the variety is not often met with in the form of a fine specimen. It has the aspect of the type except in the colour of the flowers, which are heavily margined with red. Planted at the foot of a group of rough Oak branches or against the rough posts of a pergola, it arranges its branches in a free and easy way and blossoms profusely.

C. campaniflora, from Portugal, is a strong-growing species suitable for covering a rough fence, old tree or arrangement of posts in the wilder parts of the garden. It ascends to a height of 18 feet to 20 feet and bears a profusion of light mauve flowers, which are scarcely an inch across, during the summer.

Much has been done during recent years to improve the tubular-flowered C. heracleæfolia. This is distinct from other Clematises by reason of its semi-shrubby habit, large leaves and tiny tubular bluish flowers. The type is not particularly ornamental, but many of the newer hybrids and varieties are very showy, and, as they flower throughout the autumn, they have much to commend them. The variety davidiana is one of the best known, but this is unimportant when compared with Lavellei and others of M. Lemoine's raising. Some attention has been directed of late years to

C. grata.—This is a Himalayan shrub of strong growth and very free flowering. It blooms during late August and September, the flowers being white, tinged on the outside with violet. It is excellent for naturalising or for growing over small trees, fences, groups of rough stakes, &c. In the event of good sturdy sorts being required, any of those mentioned will be found suitable, while all flower profusely and are worthy of inclusion in all gardens where unusual flowering plants are appreciated. W. D.

TWO OF THE NEWER CLEMATISES.

(Drawn in the Royal Gardens, Kew.)

THE ROSE GARDEN.

ARTIFICIAL MANURES FOR ROSES.

[In reply to a Correspondent.]

I HAVE much pleasure in giving some recipes for the making of liquid manures from artificial productions, knowing full well the difficulty town amateurs experience in obtaining natural manures. It is agreed by most of our leading rosarians that Roses can be fed better by applying manure in liquid form than in a raw state to the soil, but to cultivate this flower most successfully it needs a combination of the two methods. These few notes will not, of course, deal with applying raw manure to the soil, but there are many excellent preparations on the market, such as Native Guano, Thomson's Manure, &c., that have a world-wide popularity, which may be applied now in the dry state. Should the weather remain dry, give a copious watering once every ten days. This will carry the food down to the roots.

An ideal stimulant for Roses is phosphate of potash and nitrate of potash, half an ounce of each to one gallon of water, applied about once in ten days, but discontinued when the buds begin to show colour. This is a good stimulant, but be careful it does not touch the foliage. Nitrate of soda is a powerful stimulant and very quick acting. Use half an ounce to two gallons of water. This would be most effectual just to finish off the buds, applying when they are about one-third grown. Dried blood I have found an excellent preparation when applied at the rate of 1oz. to a square yard, repeated about once a fortnight and watered in if no rain falls. Fish guano, a teaspoonful per plant once in fourteen days and watered in, is good; old-established plants could have double the quantity.

Sulphate of ammonia and nitrate of soda, a quarter of an ounce of each to two gallons of water. Give this quantity to each tree or bush once in ten days. Newly planted Roses must not be watered with this, and I only advise it for those growing in a rather light soil. Superphosphate of lime, 1½oz. to a gallon of water, applied twice a week. Guano, 1oz. to a gallon of water, applied twice a week until the flower-buds show colour. These last two recipes could be given alternately with good results. Clay's Fertilizer mixed with soil and scattered over the beds and watered in if the weather is dry is very helpful. Finally, I advise a dressing of Tonk's manure, although rather late in the season to apply it; but in your locality I believe Roses are much later than with us near London. Amateurs would find it most economical to combine together and order this preparation from a good reliable house. It is compounded as follows: Superphosphate of lime, twelve parts; nitrate of potash, ten parts; sulphate of magnesia, two parts; sulphate of iron, one part; and sulphate of lime, eight parts. Apply in February a quarter of a pound to the square yard and a lighter dressing in May or June if much rain has fallen in the spring. I think, where artificial manures must of necessity be resorted to, that it would be advisable to transplant the Roses at intervals of, say, three years, giving them some new soil about their roots, and, of course, well digging the staple soil. It must be distinctly understood that only one of the above-mentioned manures should be applied at once, except where two or more are given in conjunction. P.

THE FRUIT GARDEN.

HINTS ON VINE CULTURE.

THINNING THE BUNCHES AND BERRIES.

THIS is a very interesting work and one of the items in the cultivation of Grapes that amateurs dearly love to attend to. Nearly every inexperienced cultivator makes the mistake of leaving on too many bunches, and also too many berries in the latter. Vines which are overcropped do not perfect the bunches and berries during the current year, and owing to the big strain put upon them they fail to bear satisfactory crops afterwards for several years to come. There are two features by which the cultivator can tell whether the Vines are overloaded or not, namely, lack of finish of the berries and the stopping of the growth of the Vines. Lack of finish of the berries means deficient colour, black varieties being reddish black instead of that grand blue-black which is so desirable. The stopping of the growth of the Vines is shown by the diminishing production of sub-lateral shoots throughout the early part of the summer when the Vines are beginning to feel the strain of bearing so many bunches.

A Vine which is not overcropped will continue to produce these sub-laterals, which must, however, be regularly removed. The surplus bunches must be cut off directly it can be seen which are the best placed and best shaped, and containing the fullest complement of well-stoned berries. An established Vine will mature 1½lb. per foot run of rod; but the amateur would be acting wisely if he confined the crop to 1lb. per foot run of rod, because such Vines, if given fair treatment, would bear this weight year after year for a long period. The berries must be thinned out as soon as it can be clearly seen which contain stones and which do not.

Black Hamburghs may be thinned at an earlier stage than any others; Madresfield Court next; Muscat of Alexandria, Alicante and Alnwick Seedling last, because there are often many stoneless berries in the bunches of the three last-named varieties. Alnwick Seedling is a variety that I would not recommend amateurs to grow unless a collection of varieties is desired.

Berries with long footstalks, such as Black Hamburgh, and those oval in shape, such as Madresfield Court and Muscat of Alexandria, need not be thinned out so severely as round-berried sorts possessing short footstalks, of which Gros Colman may be cited as a good example. Having noted these details, the cultivator will have a good idea as to how to do

THE THINNING OUT OF THE BERRIES.

A very steady hand is essential, otherwise many good berries may be cut off unintentionally and the remainder of the berries badly rubbed. More berries may be left on the top portion of the bunch than the bottom or centre. Late-ripening varieties must always have more berries removed from the centre of the bunch than early-ripening ones, on account of the difficulty of keeping large bunches with closely packed berries through the autumn and early part of the winter.

The operator will require a pair of Grape scissors, sharp and quite clean, and a piece of soft raffia or a smooth, forked stick, with which the berries must be moved gently to one side or the shoulders held up firmly while surplus berries are being cut out. Commence at the bottom of the bunch and work upwards to the shoulders, which must be tied up with soft strands of raffia if they are large. The bunches must not be twisted, rubbed, nor handled in any way; then the beautiful bloom on the berries, the natural protection against decay, will be preserved. All small, seedless berries must be first cut out, and then others in order to leave sufficient space for all to fully develop without being unduly crowded, so that when placed on the dessert-dish or the show-board the bunch will retain its shape and not fall apart exposing the centre and a number of footstalks of the berries. Directly the thinning is finished give the border a thorough watering with tepid liquid manure. G. G.

A REMARKABLE WISTARIA ON MR. CHARLES TURNER'S HOUSE AND OFFICES AT SLOUGH.

A FAMOUS WISTARIA.

THE illustration represents one of the most famous Wistarias in England, the remarkable tree running over the house and offices of Mr. Charles Turner at Slough. Mr. Arthur Turner writes: "I cannot exactly say what the age of our Wistaria is, but I have always understood it was one of the first received from China; it would, therefore, be nearly 100 years old. The house on which it was originally planted was destroyed by fire, but the Wistaria was saved. A very fine Magnolia was also on the house, but that, however, was lost."

GARDENING FOR BEGINNERS.

THE CULTURE OF CELERY.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Where the amateur intends exhibiting Roses, his or her success will be considerably enhanced by a judicious thinning of the rapidly swelling flower-buds. It frequently happens that these are produced in clusters of three or more, and usually the centre or uppermost one is the best for retaining. It must, however, be carefully examined, and if damaged in any way the most promising of the lower ones selected, carefully removing all the others with a pointed pair of scissors. Should the weather now prove dry, special attention must be given to newly planted bedding plants, as any dryness at their roots will be badly felt just at the time when new roots are being formed. It is, therefore, most essential that water be given to these plants at least until they are well established. The

I.—CELERY SEEDLINGS WHEN FIRST PRICKED OFF.

present is a good time to sow seeds of various perennials, such as Delphiniums, Aquilegias and many others. If sown carefully in shallow drills in the open and regularly watered until the seedlings are 1 inch or rather more high, a number of useful plants can be easily raised. Of course, it is safer to sow in pans or boxes in a frame, and where such is available this course is recommended, but the seedlings must be pricked off early and grown along quite hardily, otherwise they will succumb during the dark, cold days of winter.

Vegetable Garden.—Celery for a main crop should be planted at once, the trenches having been prepared some time ago, as advised on this page. Where a single row is to be grown in each trench, 10 inches or 1 foot apart, according to the variety, is a good distance to observe. For a double row allow 3 inches more and place the plants so that they alternate in each row. They must be well and regularly watered until established, and should the weather be very sunny, shading in the form of tiffany, light mats or even leafy boughs should be afforded. Where it is not intended to insert stakes or other supports for Scarlet Runner Beans, the tops must be frequently pinched out so as to keep the plants dwarf and compact. This system is almost universal with market growers, but is not advised for gardens, as the pods lose in flavour when they come into contact with the soil. Keep all crops well hoed, greens of all kinds deriving great benefit from this loosening of the soil. Take advantage of a rainy day to apply artificial manures where these are required.

Fruit Garden.—This is the season for summer pruning, and where this work is properly carried out much good can be done. It is, however, not at all well understood. All cordon trees, Pears, Plums, Cherries, Gooseberries, Currants and, in a lesser degree, Apples, derive great benefit from properly performed summer pruning or pinching. The operator must remember which growths will need partial or entire removal at the summer pruning; then the work is comparatively simple. Generally speaking, all lateral growths that would be spurred back at the winter pruning may be shortened now to within four buds of their bases, and should they break again later in the summer, these secondary growths must be removed at their point of origination. Then there will be a certain number of shoots that are obviously not wanted at all, and these should be completely removed. Generally speaking, all leading shoots should be left untouched at this season. At the winter pruning the laterals that are pinched back to four buds now will be cut back so that only two remain. The results of summer pruning are better ripened wood and finer and more highly coloured fruits.

Greenhouse and Frames.—Sow seeds of Calceolarias for flowering next spring. Shallow pans or boxes are best, and these must be thoroughly drained, using finely sifted soil composed of two parts good loam, one part thoroughly rotted leaf-soil and one part sand. Make this moderately firm and level. Before sowing the seeds mix them with some fine dry sand, as by this means a more even distribution will be secured. After sowing, a light sprinkling with sand will be all the covering required. Water very carefully and then cover with a sheet of brown paper or glass and stand in a cool corner of the greenhouse. When up, the seedlings must be grown on under quite cool conditions, a shaded frame suiting them very well. Spiræas that have been flowered in pots and subsequently hardened by a fortnight's sojourn in the cold frame should now be planted out in a cool, moist part of the garden, where they will do much better than if left in their pots; they should be ready for forcing again the year after next. H.

CELERY CULTURE FOR BEGINNERS.

Of the large number of vegetables in general cultivation, the Celery is, without doubt, one of the most popular. It may not be generally known that Celery is a moisture-loving subject, and any soil of this character, so long as it is not of a heavy clayey nature, may be regarded as eminently suitable for the purpose. We have to remember that in blanching this subject it is customary and necessary to place the soil round about the plants when they have attained certain dimensions, and soil of too heavy and retentive a character would adhere and cause the leaf-stalks to rot.

We will now consider the question of raising plants from seed, this being the only method of providing the necessary supply of plants each year. The seed is usually sown in the spring, either March or April, where a supply of good, well-blanched specimens are required early in the autumn. When the seeds are sown early in March, the beginner may rest assured that he will, under ordinary conditions, have good "sticks" ready for use quite early in the autumn. For early supplies the seed should be sown in shallow boxes, using any light and good compost for the purpose. Sow the seeds thinly, as this has advantages when the resulting seedlings have to be pricked off. If the boxes are subsequently placed in a temperature of anything between 55° and 65°, the seeds will germinate quickly and their after-treatment in a cooler temperature be of the simplest character. For winter crops I prefer to make a sowing outdoors in well-prepared soil, but in a warm, sunny aspect. Those readers who have no glass house may raise their early batch of plants on a hot-bed, where their progress will be rapid and their needs quite easily supplied.

Seedlings raised in heat should be pricked off into larger boxes, observing a space between them of 1 inch or 2 inches, more or less, according to circumstances, using any good soil that may be available. Immediately afterwards they should be watered in with clear water from a fine-rosed can, and the boxes then returned to the glass house or hot-bed. As soon as established, and this will be but a few days, the plants must be gradually hardened off by inuring them to more airy and less warm conditions of the temperature. A cold frame should be first used, and this kept rather close for a few days. Subsequently admit air, gradually at first, increasing the quantity from time to time until quite established. At this period the sturdy little plants may be either pricked off (transplanted) in a border with a warm aspect or else the cold frame or any other rough protection may be utilised for the same purpose. In cold and bleak situations the use of a cold frame at such a period is distinctly advantageous. The soil in the open border or in the cold frame should be carefully prepared and a layer of good, rich, friable soil placed on the surface, into which the seedlings may be planted. Allow a space between the plants of from 4 inches to 6 inches, as this will enable the grower to lift each plant at the time of planting in its permanent quarter with a good ball of soil and roots, which is no mean advantage. When these seedlings are planted as I suggested above, they should be as represented in Fig. 1. This is the corner of a cold frame filled with seedling Celery plants pricked off in the manner I have just described. The frame-light should cover the young plants for a time and air be admitted more or less freely as the weather for the time being may determine. On very warm days it would be fatal to leave the frame-light on, as growth would quickly become weak and attenuated, and the prospects of a successful future be considerably lessened thereby. In a few days, in ordinary circumstances, the frame-lights may be removed, and in the course of ten days to a fortnight the plants should attain proportions as represented in Fig. 2. Note how the plants have filled out and how promising is their character. A further ten days, more or less, should see the plants in an even better condition.

Water is a very important factor in successful culture, and this fact should be appreciated and acted upon as occasion demands. Water will be needed pretty frequently while the young plants

2.—THE SAME PLANTS A FEW WEEKS LATER WHEN THEY WERE BEING HARDENED FOR PLANTING OUTDOORS.

are growing so vigorously. Anticipating the period for planting outdoors in their permanent quarters these well-established Celery plants, trenches should be got ready in good time, so that delay shall not take place when the plants are ready to appreciate the shift. Trenches should be arranged either 3 feet or 4 feet apart. In small gardens the smaller space should be allowed and the larger space where garden room is not restricted. Make the trenches 15 inches to 18 inches wide and about 1 foot deep. The width of the trenches must vary according to the garden space available. Previous to placing 6 inches of good, lasting, though well-decayed manure in the trench, fork over the soil in the bottom and subsequently place a layer of about 3 inches of good soil over the manure as surface soil. This latter should be levelled and raked over previous to planting.

I prefer to plant in moist weather, and if possible prior to a fall of rain. In the event of the weather being hot and dry continuously and planting must be done, give the soil in the trenches a good watering some hours before the planting and treat the plants in a similar liberal fashion. Observe the greatest care when lifting the plants, so that as much soil and roots as possible may be retained. Nine inches apart is a good rule to observe, although there are growers who allow only 6 inches between the plants. Take out a good hole with the trowel, plant firmly and water in each batch of plants as they are completed, and the results will be quite satisfactory. Fig. 3 aptly portrays a single trench planted with Celery 9 inches apart. D. B. C.

HOW TO STAKE BORDER PLANTS.

THE good or bad appearance of many tall-growing border plants depends, to a great extent, upon the way in which the necessary stakes are used for their support. An experienced cultivator will probably not use half as many stakes as one who entirely lacks experience, and yet succeed in making the plants look neat and natural. These are the two chief points to aim at, namely, sufficient support while retaining the natural habit of the plant dealt with. The novice very often contents himself with one stake for each clump of plants. A very good effect may be produced if much time is spent upon details such as those of tying out individual shoots; but the general plan is to tie all shoots in a bundle to the single stake, which is wrong. Most clumps of plants growing in the herbaceous border may be properly supported with three stakes. They must, as a rule, be placed to form a triangle with their tops pointing outwards. If fixed just inside the outer row of plants, the sticks will scarcely be visible and the shoots of the plants will fill up the centre of each clump. Single-stemmed plants only require one stake each, and it must be fixed behind the stem so that the latter will hide it as much as possible. All ligatures must be made secure, but not so tight as to damage the bark.

BORDER CHRYSANTHEMUMS.

THE earliest varieties will soon be showing their flower-buds, and unless the plants are judiciously fed they will be very small, except those specimens growing in a naturally deep, well-enriched soil. Both individual plants and rows of them growing close together must be freely watered and fed. Immediately after a heavy shower of rain a good soaking of liquid manure will do an immense amount of good; and also a watering with soot-water once a week will deepen the green colour of the leaves. All artificial manures must be given after the buds have formed. Green and black aphides must be cleared off the young shoots, else the latter will be sadly crippled and rendered useless for bearing flowers. SHAMROCK.

THE TOWN GARDEN.

LAWNS.—Even in a season when showers are frequent during the months of April and May, lawns begin to show signs of failing in June when not shaded a little by trees growing near them, and we may expect to see many brown patches on lawns, especially on those where the turf is thin and does not rest on a good depth of rich loam. Last year, in the month of July, I inspected some gardens almost in the centre of a very large manufacturing town, or rather city. Flowering plants in the borders looked very well, and in one garden Orchids were a feature, the magnificent collection of plants showing rude, robust health, thus proving beyond any question that town-dwellers may thoroughly enjoy growing Orchids in adverse climatic circumstances. Other kinds of hot-house plants were equally attractive on account of their fine, healthy state; and even Grapes had been grown in one of the gardens and were good enough to have a gold medal awarded them at a leading exhibition in the Midlands. After this digression I must return to the lawns. The grass was dark green in colour and growing almost as closely as the bristles in a brush. I did not notice a single weed although there may have been a few, and in one garden enclosure a miniature golf ground had been formed. It was about the size of an ordinary tennis court, with (I was going to say) greens and holes; the holes were there certainly as denoting golf links, but the whole lawn appeared as one grand "green." These facts further prove that town-dwellers may command many pleasures which a well-kept garden is capable of affording. At the present time give dry lawns thorough soakings of clear water; mere surface sprinklings are useless. Also take off the box from the machine and allow the grass, as cut, to fall on the lawn and remain there; it will protect the roots of the young grass plants, and, being short, the cut blades will not look very unsightly. Furthermore, make use of clear soot water, applying it to the grass while it is still moist from previous waterings with clear water.

CLOGGED MOWING-MACHINES. — When the mowing-machine is used in dry weather, the blades of the cylinder soon get clogged with the sap and portions of the grass. If the gum-like substance be allowed to remain adhering to the blades, the work of mowing the lawn will be hard and not very well done either. Clear away the substance with the aid of an old knife and then smear the blades with an oiled rag, taking care all the time not to get the ends of the fingers damaged through the turning of the cylinder. Before putting away the machine after each mowing the blades ought to be cleaned and oiled.

ROSES.—The trees must be well watered and fed if the very best results are to be obtained. I had one small specimen of that grand variety Mme. A. Chatenay, which was last year somewhat neglected on account of its apparent uselessness. Then I commenced to regularly water and feed it, with remarkably good results; young shoots began to grow, and in a very short time more than a dozen buds formed, and all opened beautifully. This is a grand variety for growing in a town garden and for filling vases. I do not know of any other sort that opens as freely in water when placed there in the bud stage. I like to arrange Rose blooms singly in small vases. I do not think there is any other way of showing up individual blooms to better advantage. As suggested above, give the Rose trees ample supplies of clear water, and never apply any manure in either a liquid or a dry state without being quite sure that the soil is thoroughly moistened well below the roots. AVON.

3.—CELERY PLANTED IN THE PERMANENT QUARTERS. NOTE THAT EACH PLANT HAS SUFFICIENT ROOM TO DEVELOP PROPERLY.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUIT DEPARTMENT.

VINES.—Keep Grapes which are perfectly ripe as cool as circumstances will permit, and do not let the roots get too dry. To keep the berries fresh and plump for some time it will be well to slightly shade the house with a little whiting and linseed oil, just enough of the latter to make the whiting adhere to the glass. Grapes colouring should be more freely ventilated in bright weather, allowing a little air to remain on during the night. Attend to the removal of laterals, but do not expose the bunches too much. Examine the roots as colouring commences, and if dry give the borders a thorough soaking with liquid manure at a safe strength to help to finish the crop.

Latest Vine Houses.—All thinning should now be finished and the houses kept well damped down so as to maintain healthy growth. Lady Downe's should not be too severely thinned except where there is no danger of the berries getting scalded during the stoning period. When thinning the berries of all late Grapes, see that the footstalks are cut clean and all little seedless berries removed. Regulate the fire-heat according to the outside atmosphere ; in some instances it might be almost or quite dispensed with.

Peaches and Nectarines.—Trees bearing ripe fruits should have abundance of air at all times circulating freely among the branches and fruits. A little shade will greatly lengthen the season and be helpful in preventing the buds at a later period from getting too dry, which in my opinion is one of the principal causes of bud-dropping. Do not neglect the roots at any time, abundance of water and plenty of syringing overhead after the fruits have been gathered being most essential to maintain healthy, robust foliage and to secure another season's good crop. Close the houses of later crops between 3.30 p.m. and 4.30 p.m., with plenty of moisture. The large varieties, such as Princess of Wales, Sea Eagle, &c., must not be overcropped if size and flavour are to be considered and a crop the following year.

PLANT HOUSES.

Pot on Gardenias and other stove plants when required, but do not at any time give the plants too big a shift when repotting. Larger plants may be supplied with a little manure-water or some suitable plant food at intervals to assist growth and foliage.

Allamandas and other plants growing in large pots and tubs need very liberal feeding and large supplies of water during the time they are making good growth. Train the shoots neatly to the trellises, not too thickly, and keep the plants generally free from insects and other pests.

Azaleas and Camellias.—When these have set their buds they may be stood outside in a rather shaded position. Keep them well syringed during hot weather, and should the plants become infested with thrip, use a little Gishurst Compound or some other approved remedy. Sow more Cinerarias and make a good sowing of Calceolarias. See that the pans are clean and well drained, and use sandy soil pressed firm. As the seeds are so small, take care not to bury them too deeply. The pans should be stood in a cool place and covered with a square of glass till the young seedlings appear.

Sweet-scented Geraniums —To keep together a nice collection of these propagation at intervals is essential. Do not give the roots too rich a soil ; sandy loam, leaf-mould and a little sharp sand will suffice. H. MARKHAM.

(Gardener to Viscount Enfield.)

Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

FLOWER GARDEN.

HERBACEOUS PLANTS.—Many of these will now require supporting to keep them erect. The use of stakes and twine is often objected to as unsightly ; but unless something of the kind is adopted, the plants are almost sure to open out until they rest upon surrounding subjects, or even upon the ground, with the result that the flower-heads will rise, thus causing a bend in the stems, marring their beauty and unfitting them for pleasing arrangement as cut flowers. A single stake to either medium or tall growers is seldom satisfactory, but three or more, according to the circumference of the plant, placed around and connected with strong twine form an efficient support and interfere but little with the natural grace and beauty of the plant. Plants long established and having an excess of foliage are apt to suffer in dry periods ; if circumstances permit, copious supplies of water may with advantage be given, or, if otherwise, free use of the hoe would prove beneficial.

Hardy Perennials.—Seeds of many may now be sown ; if under the protection of a glass frame the more successful will probably be the result. Use good soil and cover the seeds slightly ; if shaded for a time germination is accelerated. In this matter patience is needed, for some kinds may not appear above ground for weeks afterwards, but in the end be over-abundant for requirements.

Sweet Peas.—Thin those intended for late blooms severely, for as the season advances growth becomes more rampant, and with the cool, damp nights of autumn this is not conducive to continuity of blossom. Stake earlier sowings as they become fit, taking care, if branches are used, that these are kept in cylindrical form throughout to give the plants room. Water thoroughly as required, but withhold stimulants, by way of manure, until the flowers open, till when the larder about the roots will suffice.

VEGETABLE GARDEN.

Celery.—Planting of the main crop should be carried out before the plants get drawn through want of room and air in the nursery beds. For general use 1 foot of space between the plants is ample. Moist weather should, if possible, be chosen, or, failing this, thorough watering and shade for a few days.

Seakale.—Numerous growths having started from the thongs planted in March, these should be reduced to one. To be successful with this crop in northern parts, the most must be made of the growing season ; hence frequent hoeing of the surface, or, if the soil is of a very retentive nature, a heavier and more deeply penetrating implement may with advantage be used.

Asparagus beds are showing signs of exhaustion by way of weaker and more spindling heads being produced. For this crop, also for Seakale, a dressing of nitrate of soda, 1 oz. to the square yard of surface, is helpful.

Peas require staking when 8 inches in height, as if they get top-heavy and incline to one side labour is doubled. Clean along the rows and loosen the soil, finally drawing a ridge on either side before inserting the stakes. Main-crop Peas require plenty of room ; consequently the stakes should incline outwards at the top rather than the reverse.

Pea Weevil.—This, as well as various other minute insects, attacks the foliage at times—perhaps but one row among many—the sickly looking and punctured leaves being a sure indication of their presence. Dusting soot along the rows when moist from dew or rain, if done in time, will often save the plants ; but any badly affected are best destroyed before they infect others. JAMES DAY.

(Gardener to the Earl of Galloway.)

Galloway House, Garlieston, Wigtownshire.

MAY-FLOWERING TULIPS AT COLCHESTER.

SIGNS are not wanting that the many beautiful Tulips which come under the heading of May-flowering are increasing in popular favour, and when compared with the earlier bedding varieties this is not at all surprising. In these late-flowering Tulips we have regular and graceful forms, a wide range of colours, flowers of lasting character, long, stout stems, robust foliage and not infrequently a delicate fragrance ; hence it will be seen that May-flowering Tulips have much to commend them to all who love flowers of more than usual merit. During recent years several of our best nurserymen have devoted much attention to these Tulips, foremost among them being Messrs. R. Wallace and Co. of Colchester. A week or so before the Temple Show we had an opportunity of visiting this ancient and historic town, and naturally we wished to see how the Tulips were doing at Messrs. Wallace's nursery. Despite the excessive dry weather which had been experienced some time prior to our visit, these Colchester Tulips were doing remarkably well, their robustness and brilliant, large flowers denoting culture of the highest order. Grown in batches of one sort, we had an excellent opportunity of judging the numerous varieties, and below we mention a few that appealed to us very strongly on account of their all-round good qualities.

Among new ones we were most interested in President, a superb orange variety that had been granted an award of merit by the Royal Horticultural Society. It is a rather pointed flower of exquisite shape, and is certain to be in great demand. Blue Eye is quite a unique variety, the well-shaped flowers being deep mauve with a light, almost sky blue eye. It is tall and vigorous, and should find a place in every good collection. Beauty of Bath has long, pointed flowers of graceful outline, the colour being soft pale yellow, flushed externally with reddish purple. It is a very chaste Tulip. Red Standard is a beauty. The flowers are large, of a beautiful shade of red both inside and out, and it is of a rather dwarf habit. As a late bedding variety this Tulip should prove most valuable. La Parisienne is another splendid novelty, the shape of which reminds one of the well-known Mrs. Moon ; the colour is delicate light pink and is quite distinct. Of the older varieties, we saw so many that were good that it is difficult to know which to omit. Quaintness is one that is most appropriately named. The flowers are of good shape, dark brown, flushed with deep rose outside and shaded mahogany on a yellow ground inside. The unique colouring of this Tulip must be seen to be fully realised.

In Inglescombe Pink, I. Scarlet and I. Yellow we have three varieties of sterling merit and graceful outline. Dom Pedro is a beautiful dark maroon variety with bronze and mahogany shading, and is one that we have a special liking for. Others that specially appealed to us were Ixioides, a rather small canary yellow flower with black Ixia-like centre ; La Reve, rose and orange ; Mauriana, one of the Savoy Tulips, with large orange scarlet flowers with yellow centres ; The Fawn, fawn and apricot colour ; and Walter T. Ware, the deep rich yellow new variety.

Among the Darwins we saw some extra good sorts, but lack of space forbids us to dwell extensively on these. Baronne Tonnaye, very tall, pale rose ; Clara Butt, salmon rose and pink ; Farncombe Sandars, scarlet crimson ; La Candeur, creamy white ; La Tulipe Noire, the black Tulip ; Melicette, soft lilac ; Millett, crimson maroon ; Pride of Haarlem, large scarlet and red, with bright blue base ; Van Poortvleit, very large rose-coloured flowers with lilac base ; and Zulu, very rich purple black, were a few that we noted doing particularly well in this section.

NEW PLANTS.

LÆLIO-CATTLEYA MIKADO.—This is a remarkably clear-coloured flower, the sepals and petals being a clear yet rich canary yellow and quite free from blemish. The sepals are roughly lanceolate and reflexed at the margins, the petals being much broader and also reflexed. The labellum is rich carmine in colour, with a very narrow yet well-defined margin of pale yellow, rich orange yellow being present in the throat. The labellum is of medium size and well formed. The plant shown had one raceme composed of four fully developed flowers. Exhibited by Lieutenant-Colonel Holford, C.I.E., C.V.O., Westonbirt, Tetbury, Gloucestershire. First-class certificate.

Odontoglossum amabile fowlerianum.—A very large-flowered variety of mixed colouring. The sepals and petals each have a large blotch of dull brownish crimson placed towards the base, the apices being coloured violet and the whole of the segments edged dull white. Shown by J. Gurney Fowler, Esq., Glebelands, South Woodford. Award of merit.

Cattleya Mossiæ A. Dimmock.—A very large-flowered form of this well-known Orchid, the sepals and petals being a rather deeper lilac hue than those of the type. The labellum, too, is more richly coloured and better fringed, the whole flower being large yet refined. Shown by Lieutenant-Colonel Holford, C I.E , C.V.O. Award of merit.

Lælio-Cattleya Feronia.—This is a flower of a rather unique colour-combination. The narrow sepals are almost pale salmon in colour, the large and broad petals being dull rosy pink; the large labellum is very rich carmine self, with the exception of some orange yellow markings in the throat. A very handsome and attractive flower. Shown by Sir Trevor Lawrence, Bart., K.C V.O., Burford, Dorking. Award of merit.

Geum coccineum Mrs. J. Bradshaw.—A large-flowered variety of the well-known double scarlet Geum, the colour being of a somewhat deeper shade of scarlet. Exhibited by Messrs. G. and A. Clark, Limited, Dover. Award of merit.

Lithospermum prostratum Heavenly Blue.—A very beautiful and distinct variety of this well-known plant, the colour being a clear sky blue. In every way a desirable addition. Shown by Mr. Amos Perry, Hardy Plant Farm, Enfield. Award of merit.

Sweet Pea Paradise Apple Blossom.—To add anything to an appropriate and descriptive name would be superfluous. We allow the name to speak for itself. Shown by Miss Hemus, Upton-on-Severn. Award of merit.

Iris Ed. Michel.—A very striking and effective variety, the standards and falls of a rosy purple shade, lightened towards the base. The falls are freely veined. A tall variety of merit. Shown by Messrs. R. W. Wallace and Co., Colchester. Award of merit.

Scolopendrium vulgare crispum multifidum.—A very handsome form in which the termini of the fronds are heavily and numerously tasselled.

Scolopendrium vulgare crispum murieato-fimbriatum.—A distinct variety in which the fronds are much waved or undulated from the margin to the approach of the midrib. Both were shown by Messrs. H. B. May and Sons, Edmonton, and each received an award of merit.

Araucaria excelsa Silver Star.—Several plants of from 2½ feet to 3 feet high were exhibited, and in each case the extremities of the branchlets to a depth of 3 inches or more were uniformly coloured a silvery white. The only well-marked variation of the Norfolk Island Pine we have seen. Shown by Messrs. T. Rochford, Turnford Hall, Broxbourne. Award of merit.

Polypodium glaucum crispum.—Some two or three years ago Polypodium glaucum Mayi received an award of merit or first-class certificate, and the present variety is in many respects very similar, the wavy extremities of the fronds in all probability suggesting the varietal name. Shown by Messrs. Rochford, Turnford Hall. Award of merit.

Schizanthus Beauty of Trent.—In this case the award was given for the strain, which is a highly meritorious one. From Mr. H. Parr, New Barnet. Award of merit.

Aquilegia Dobbies' Strain.—This is a very fine strain of the long-spurred Aquilegia or Columbine, the delicate colours being exceedingly beautiful and the flowers of a most graceful form. Shown by Messrs. Dobbie and Co., Rothesay and Mark's Tey. Award of merit.

All the foregoing were shown before the Royal Horticultural Society on the 8th inst., when the awards were made.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Crown Imperials (*E. M. Fancourt*).—The small size of the bulbs—which were very much crushed when received—and the poor, enfeebled growth suggest a starved condition generally. You had better try heavy manuring of the soil, which should be dug quite 2 feet deep, incorporating some lime as the work proceeds. The Crown Imperials prefer a rather strong chalky loam, and the bulbs should not be nearer than 6 inches to the surface. You should replant them in June or July and not err on the side of generosity when dealing with them. Once well planted, the bulbs may remain for years.

Planting flower-bed (*Mount H.*).—A simple and effective bed could be made as follows: Outer edging, Alyssum; next, Antirrhinums; then distribute the Marguerites freely at intervals over the bed; and, finally, prick out the Asters in between. The Marguerites should be arranged 9 inches to 1 foot apart, and if you have not a sufficient number of plants you might bed out the Marigolds in mixture with the Asters. You have too many things for the one bed, and the use of all of them would only create a rather strange medley. If the number of plants at your disposal are insufficient, the Stocks may be used as well as the Asters.

A weedy lawn (*Despair*).—It seems obvious that, although the dressing of sulphate of ammonia killed the large leafy weeds in your lawn, it did not destroy the seeds which these weeds had so freely produced, perhaps, for several years and of which the soil is doubtless full. It is even possible that some weed seeds were in the leaf-soil and road sweepings—in the latter especially, if there be grassy breadths or ditches on each side, as weed seeds would blow from these into the road. We fear you will have next winter to face the labour and cost of having the whole of your lawn lightly forked over a few inches in depth, all existing grass and weeds thrown out and removed, and a heavy dressing of soot and about 6lb. per rod area of basic slag put on it and well scratched in. Early in March what weed seeds were on the surface would grow. Have them well hoed and raked off quite clean; then immediately sow good lawn grass seed thickly and well roll it in. If the grass gets the start of any other weeds, a really good lawn, free from them, should soon result. You can use the old turf for a dressing, but not the rubbish.

Carnation leaves diseased (*Miss I. R.*).—The leaves appear to have been damaged by aphis. As the plants are growing in a house, if the aphis is still evident upon them they may be fumigated with a fumigant such as XL or Abol.

Culture of Gentians (*Franciscus*).—Gentiana bavarica succeeds best in moist, spongy soil exposed to full sun, and thrives well in sphagnum moss mixed with broken limestone, leaf-mould and sandy peat. You might try G. Bigelovii in a similar spot with somewhat firmer planting and decidedly less chalk.

Raising Kochias from seed (*H. E. F.*).—Yes; the Kochia can be raised without artificial heat from seeds, and the latter should be sown in the open in a warm and sunny place and in rich soil in May, covering the seeds slightly with fine soil, thinning the seedlings as early as possible and pricking them out a few inches apart. Give them rich soil and a sunny situation, and they should colour well in autumn.

Narcissus poeticus flore-pleno (*Grace Gardener*).—This variety of Narcissus is of a decidedly moisture-loving nature, and prefers clay soils or such as are retentive and moisture-holding. In certain instances it does well when partly submerged and thrives best beside a lake or stream. In any case, rather deep planting should be indulged in, and the bulbs should not be frequently disturbed or dried after lifting, but replanted at once. The Triteleias are now referred to as Brodiæas.

Names of Tulips (*Hall Place*).—The long red with the blue base is gesneriana spathulata; the soft yellow with reflexing petals is retroflexa; the large orange red with a yellowish base is La Merveille; the semi-double salmon pink is unknown to us. Curiously enough, your bloom is the second that has been sent for us to name. We have consulted experts in England and Holland and they are unable to name it. Probably it is some seedling which has got into certain Dutch mixtures and never been propagated separately, as it is not very large.

Book on Auriculas (*H. E. F.*).—There is no modern inexpensive work on the market on the Auricula that we know of at present. You might be able to procure a second-hand copy of Thomas Hogg's "Practical Treatise on the Culture of the Carnation, Pink, Auricula, &c." for about 3s., and the articles which appear from time to time in THE GARDEN will give you all the information really required for the culture of these beautiful flowers. Nicholson's "Dictionary of Gardening" has full details, but it is more expensive than you probably wish. "The Century Book of Gardening" (London: *Country Life*, Limited) contains a useful description of the method of cultivation of the Auricula.

THE GREENHOUSE.

Treatment of an Azalea (*Azalea*).—If your Azalea is a good shapely plant, it will not require any pruning, and whether it needs repotting will depend upon the state the soil is in. If in good condition, you need not interfere with the roots, as Azaleas will keep in good health for two or three years without potting. Should one or two of the branches have a straggling tendency, they may be shortened back in order to maintain the symmetrical character of the specimen. Then place the plant in the conservatory, keep it well supplied with water and syringe it, if possible, two or three times a day during hot weather, as atmospheric moisture is very conducive to the welfare of the Azalea. When the plant has made good growth, say, the end of June, it may be stood out of doors in order to ripen the wood and thus ensure the formation of flower-buds for the next season's display. A dose of weak soot-water occasionally during the growing season will be helpful. A the probability is the plant will be shaded whe in the conservatory, care must be taken to place it in a partially shaded spot when first put ou of doors, and inure it to exposure by degrees to the full rays of the sun. Should the plant require potting, a suitable compost is peat and sand. This soil must be pressed down very firmly and care taken not to bury the ball of earth deeper than it was before. In winter the structure in which this Azalea is kept should not even at night fall below 45°.

Information about an Oleander (*N. M. B. D.*).—In common with many evergreen shrubs, some of the old leaves of the Oleander die off in the spring when the new ones are pushed out, and nothing will prevent that. You do not say if the leaves that drop are on the lowest part of the branches and, consequently, the

oldest, but we presume they are. Concerning the treatment given, the Oleander is essentially a moisture-loving plant, but even then continual standing in a saucer of water is very likely to prove harmful. It is the stagnant water in contact with the roots that the plants resent; hence the saucer should be emptied once a day. You omitted to enclose your name and address; in future no notice can be taken of anonymous queries.

Passion Flower dead (*H. P. P.*).—It is too late to say what the precise cause of the death of the shoot was, but it would appear probable that a fungus (possibly Botrytis) gained ingress into the wound near the spot you have marked and killed the tissues in its neighbourhood. The wood was probably not very well ripened.

Culture of Abutilons (*G. Clarke*).—Standard plants of Abutilon vexillarium variegatum can be obtained either by growing on the plants from cuttings or by grafting. By this last-named method effective standards can be obtained in a less time than if struck from cuttings. Any vigorous-growing form of the garden varieties may be used as a stock, the main point being that it has a good clean stem to the height required. Seed of Abutilons is readily obtainable, and most of the young plants grow quickly and soon reach a height of a yard or more. For grafting purposes these stocks should be kept in comparatively small pots, as they are then more convenient for handling. The principal care in grafting is to have a close propagating-case in which the grafted plants can be placed till a union is complete. It is not at all necessary that the case be of sufficient height to allow the grafted plants to stand upright, as they can be laid down till a union is effected, which will not be long. Ordinary cleft grafting may be employed, and if the stock is sufficiently stout two grafts can be inserted, as the shoots of A. vexillarium are very slender. Carefully fitted and tied securely in position, these grafts will not need any wax or clay if there is a close case or frame in which to place them. If there is no convenience of this kind, then the better way will be to grow on young plants as quickly as possible till the required height is obtained, and then pinch out the leading shoot in order to form a head.

TREES AND SHRUBS.

Magnolia leaf for inspection (*Devonia*).—From the appearance of the Magnolia leaf you send, the plant is evidently in a bad state of health. The spotted and shrivelled leaves denote bad root-action. You would have done better to have deferred the planting until April or May. Magnolias are difficult plants to establish, and the evergreen ones should be transplanted just as growth is commencing. Your Bamboos are suffering from the same cause; they were moved in the autumn, and there were practically no active roots throughout the winter, which accounts for the slow growth. May is a good time to transplant Bamboos, when young growths are a few inches long and young roots are being formed. They ought to succeed in the position you mention, providing you worked the soil well before planting.

Injured Rhododendron buds (*A. W. N*).—Without doubt the destruction wrought among the flower-buds of your Rhododendron Jacksonii was caused by the one or two specially severe frosts we had during the winter. When such frosts follow on moisture the effect on such things is apt to be destructive. We heard weeks ago of the grave mischief done to Rhododendron buds by frosts when in very exposed places, the buds then being quite soft and pulpy. All such buds would before now show the same injury as yours do. R. ponticum is one of the hardiest, and most likely the buds on that species have not come to harm. You will doubtless get good growth on your plant presently and new buds form. With a mild winter these may escape harm, but a light covering laid over the bush at night next winter if the temperature falls very low may save it from injury.

FRUIT GARDEN.

Nectarine leaves diseased (*Churchhill*).—Your tree is affected by a disease known as Peach-leaf blister. It is the result of a fungoid attack (Exoascus deformans) brought about by chills in very cold weather in spring, such as we have recently experienced. The best way of destroying the fungus is by dredging the tree early in the morning, while it is damp with dew, with flowers of sulphur. The sulphur will then adhere to the leaves, both sides of which must be dredged; indeed, every portion of the tree. In twenty-four hours the sulphur will have destroyed the fungus, when it should be syringed off on to the border, and when dry cleared away. A Nectarine tree not in robust health (a condition we conclude your tree is in by the small size and poor substance of the leaves) is always an easy prey to disease, and the only way to protect it in future is by improving its health and infusing more vigour into its growth. This is also the only way in which it can be brought back to fruitfulness. A Nectarine tree is never too old to bear fruit, so long as it can be maintained in good health, and no fruit tree is easier to bring round to this condition than a Peach or Nectarine.

Black Hamburgh Vine in a cold greenhouse (*Black Hamburgh*).—Without seeing the Vine it is difficult to say how many bunches of Grapes its strength will permit it to bring to perfection. Much depends on the strength of the Vine and also on the size of the bunches. But, presuming that the Vine is in robust health, and that the bunches are of moderate size and weight (say, from three-quarters of a pound to one pound), we think that each of the six side shoots should be able to carry and finish five bunches, thus making thirty bunches in all.

Raspberry trees failing (*E. M., County Clare*).—Raspberry trees often resent being taken up and replanted, and not infrequently retaliate by refusing to grow freely for two or three years afterwards. Evidently it is so in your case. The replanting, when it has to be done, should be carried out in the autumn whenever possible. The chances of the trees recovering from the disturbance in a short time are far greater than when replanting takes place in spring. The suckers which are growing from the roots of each tree should be thinned out, leaving four only of the strongest to grow on. These, if they grow freely, will probably give some fruit in the autumn; at any rate, they ought to make useful canes by the end of the summer and give you a good crop next year. The suckers to be thinned out should be pulled up by the root (not cut off) and the disturbed ground made firm again by treading. The Raspberry is a surface-rooting plant, and if you can have a layer of rotten manure, 3 inches deep, laid on the surface of the soil over the roots of the suckers left, it will greatly help their growth during the summer. If all the stems of last year's growth are in the same condition as the sample sent, they had better be cut off. This one is practically dead.

Pear tree leaves diseased (*A. R., Dundee*).—The foliage of your Pear tree is suffering from a bad attack of a fungus called Cladosporum dentriticum. It generally confines its attack to trees in indifferent health, and seldom or ever affects trees of robust growth. There is no known remedy for its destruction, and the only thing which can be done to prevent its recurrence is to replant the tree in the following soil compound this autumn after the leaves have fallen. To one barrow-load of turfy loam add half a gallon of bone-dust, a gallon of lime, and a peck of old ceiling or mortar rubble, or, in the absence of this, of old bricks broken small, with the dust included, will do. Mix well and replant in this, taking care not to injure the roots in the operation more than can be helped, and cutting back the strongest roots to half their length. If the tree is more than nine years old, it would not be safe to lift it entirely out of the ground. In that case the way to proceed will be to take away all the surface soil until a good body of roots are reached, placing the new soil firmly over the roots to the depth of 6 inches. You will find that this treatment will infuse new life and strength to the tree, which will fortify it afterwards against further attacks from the fungus.

Vine leaves damaged (*Copley*).—We think that the damage has been caused by a burst of hot sunshine falling directly on the leaves early in the morning while they were damp and when the vinery was insufficiently ventilated. The leaves are a splendid colour and of fair substance, and by this we conclude that the Vines are in good health except for this injury. By applying a little heat to the hot-water pipes at night and leaving a small chink of air on back and front ventilators (all night), the air will be kept moving and the danger from condensed moisture in the morning avoided as well as the burning.

KITCHEN GARDEN.

Rhubarb roots dying off (*N. R. L.*). Your young crowns were planted out at the worst possible time (November). The cut roots would have no chance of healing up before spring, until new roots were formed, and there is no doubt that your two roots which refused to grow rotted off during the winter. The best time to replant Rhubarb is from the middle to the end of March, according as to whether the season is early or late. The time to replant is just as new growth begins. New roots will then immediately emit from the old cut roots, and there will be no chance of their rotting off. We have no fault to find with the way you prepared the soil, but you buried the crowns too deep. They do not want burying at all, but simply to be placed low enough for the top of the crown to be slightly lower than the surface of the soil. What you say about exposing the roots to the air for a few days is wrong.

Weak Asparagus growth (*F. C.*).—The weak growths sent up from your Asparagus roots may be due to old age and exhaustion. In any case and whatever the cause, if the ground was badly prepared prior to planting it is difficult by any surface-dressing to improve it. The soil beneath the roots may be sour or very poor. If you prefer to dress your bed with stimulants, do so now by using superphosphate of lime three parts and sulphate of ammonia one part, well crushed and mixed, then dress on the bed at the rate of 4oz. to the square yard, working it into the soil with the Dutch hoe. Soot may be also used freely in the same way. Occasional soakings of liquid manure or exposed sewage should help. In very dry weather a thin sprinkling of coarse salt is useful. But, after all, it may be best to make a fresh bed. This, however, cannot be done till next spring, when two year old roots should be obtained to plant. But that time is now far off, and it would be well to ask for further instructions early in February next.

MISCELLANEOUS.

Addresses wanted (*E. T., Walsall*).—We are not aware of the addresses you desire. If you enclose an addressed envelope to Herr Lambert, Trier, Germany, or to W. Hinner, Trier-Pallien, Germany, we should say you would obtain the information.

Information about leather-jackets (*Milverton*).—Leather-jackets are the grubs of the daddy-long-legs or crane-fly. They are about the thickness of a quill pen, legless and about 1¼ inches in length, tapering towards the head and ending abruptly at the tail. They are of a brownish grey colour and their skins are very soft and tough; hence their name.—G. S. S.

Caterpillars on fruit trees (*C. N.*).—The caterpillars attacking the foliage of your fruit trees are those of the winter moth (Cheimatobia brumata). Spray with a wash of arsenate of lead. Bordeaux mixture is only a fungicide. Put grease-bands round the trees in October to prevent the female moths, which have no wings, from crawling up the stems.—G. S. S.

Green beetles on shrubs (*W. M.*).—The green beetles are one of the leaf-eating weevils belonging to the genus Phyllobius. Spray with an arsenate of lead wash. Dissolve 2¾oz. of acetate of lead in 1oz. of arsenate of soda in 10 gallons of water, which will poison the leaves. Many might be caught by shaking the boughs over an open umbrella or some substance which has been newly tarred or painted.—G. S. S.

Rose Climbing Liberty with curled foliage (*Peter Fairhurst*).—As you have not sent us a sample leaf, we can only surmise the curling is caused either by mildew or the leaves have been scorched by the recent bright sunshine. If they appear as though singed, the latter is the cause, and you must take steps to slightly shade the plant by painting the glass lightly with Summer Cloud. If the leaves have a whitish appearance, the cause is mildew. For this fungus a good syringing with Lifebuoy soap water will check it if it does not cure. Half a bar of the soap to three gallons of soft water makes an excellent wash for mildewed growths upon indoor Roses.

Destroying Nettles in garden (*Evelyn*).—If you can prevent Nettles from making any stem and leaf growth, you will in that way finally exterminate them. If the Nettles are now strong, have them cut hard down at once; then proceed to have all the roots possible forked out, dried and burnt. This means much labour, but it is needful. If you do not thus endeavour to fork out the roots, you must in any case hoe the surface hard where the Nettles are growing with a sharp-edged hoe, and persist in doing so for at least once a fortnight, so that not a stem or leaf can be found. So treated the roots must in time die away; but the process is longer than is the case if forking out the roots is practised. Very likely, if Nettles have long been growing, they have seeded; hence the soil may be full of Nettle seed. If so, thick plants of seedling Nettles will come up fast and necessitate the use of the hoe to destroy them. Probably a dressing of gas lime, a bushel to the rod, strewn over the ground would also help to kill the roots after the tips were cut down.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR, *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

THE PROSPECTS OF THE ROSE SEASON OF 1909.

THE vicissitudes of the season through which we have passed have been so marked, the changes in temperature that have been experienced so extreme—hard hit by severe frosts, with no moisture in the soil to counteract the scorching sun and searching winds of May—and the buds eaten by pests so innumerable that one of my esteemed correspondents, who should be a high authority on the subject, informs me that the caterpillar plague in Egypt of old time was nothing to it. Surely never was there such a season as the first five months of 1909! Frosts, lack of rain, wind, heat, grubs, beetles and caterpillars all played their part in no half-hearted fashion, so that not a few began to despair of any Roses worthy of the name in the summer of 1909; but they under-estimated the enormous recuperative power in a Rose plant. A few days' genial weather, with alternate showers and sunshine, and shoots seem to spring into being; and what was a miserable, half-starved, nearly leafless plant one week, the next was strong and healthy, with promise of, shall I say, a "medal bloom."

After the pruning, which was done for most of us by frost—the advocates of light pruning must have found their favourite occupation of clipping the ends gone this year—plants broke slowly, but by the end of April were generally looking well; then came May with cold nights and cold winds, with almost perpetual sunshine. We had an average of over ten hours per day right through the month in my district, so that the foliage dried up and shrivelled and the plants refused to grow. To add to our discomfort came the caterpillar and maggot in far greater numbers than usual. The old theory that a hard winter means less pests is exploded. I am inclined to think that in hard winters the parents remain dormant longer and are not brought out at unseasonable times, as they would be by a spell of mild weather, when the next frost does for them. At any rate, be the reason what it may, there they were on every shoot, two and three on a leaf sometimes, and as you killed them so others cheerfully took their places, for the whole tree had to be gone over next day, and day by day for a much longer period than usual. That brings us to June. For the first few days plants refused to grow with that sturdy vigour we expect of them when they have had all the care we can bestow; but during the last fortnight I can see a great change, and I am now beginning to hope for great things from 1909. Plants, shoots, foliage and buds are not the size they were when I was writing an article on this same subject last year. I never remember a finer promise than June, 1908, gave us, spoilt, it will be remembered, by the tropical heat of the last days of the month and the first few days of July, culminating in the hottest day of the year for the National Rose Society's show. That can hardly be expected two years running. Let us hope, therefore, that if the promise is not quite so rosy the performance will be finer, and that when the public wend their way home on July 2 they will have witnessed the finest show ever held by the National Rose Society. I do not consider that at all impossible nor even improbable; the schedule is certainly better than ever, the committee and the secretary have worked hard to make the show a success from every point of view—even that sore point with some, namely, the catering, has had special care and attention—and steps have been taken to deserve success where success is seemingly so hard to obtain.

It would be presumptuous—nay, folly—on my part to say anything about the prospects of the Rose season for 1909, more particularly with reference to the National Rose Society's great show at the Royal Botanic Gardens on July 2, judging only from my own garden and such gardens as I have seen. I have, therefore, asked the leading Rose-growers throughout the country, both amateur and the trade, to let me have their opinion, and I have taken the liberty of giving extracts from their letters. For the sake of convenience I have grouped them into districts, and I will start with

Colchester.

All the growers at Colchester are or have been champions. Why is it? Their soil? None of them grow on similar soil, one heavy, another light, a third medium. No, I think it must be the *air;* but it is the difference of soil that I think accounts for the fact that the championship changes hands so often—one likes rain, another heat, and so on. My correspondents write me as follows:

(*a*) Roses will be both good and plentiful by July 2; the plants are very strong and clean, and fine flowers of the early varieties have already been cut from cut-back plants planted last November; the two and three year old cut-backs are later. Maidens will vary considerably in period of flowering; plants of the same variety bear weeks apart. The rain has caused a marvellous recovery from the winter and spring frosts. The Hybrid Perpetuals are late. Garden Roses promise well.

(*b*) Roses here promise a season neither early nor late. The plants look healthy. Hybrid Tea buds promising, but backward. Maiden Hybrid

Perpetuals look well; buds have formed more freely than usual, and it is only necessary to have warm weather to bring these on in time; but we fear many of the dark varieties will not be fully out by the time of the National Rose Society's show.

(*c*) At the moment we are about a fortnight later than last year, but plants and buds look very promising all the same, especially Hybrid Teas and Hybrid Perpetuals. Teas are rather weak, which is not to be wondered at. There should be plenty of all sections of Roses for the National Rose Society's show.

(*d*) Everything much improved—even the Teas begin to look quite promising. I think, after all, the date will suit us here. I was afraid at one time it was too early.

HITCHIN.

(*a*) With me the season is about an average one as to date. My plants look well on the whole, but were hit by frost on May 16; but we have registered 3 inches of rain this month already as against 0·80 during the whole of June, 1908, and with warm weather they should come on fast. Hybrid Perpetuals, both cut-backs and maidens, look best here.

(*b*) Maiden Hybrid Teas are very good; Teas at present look very thin and spindly, and my Hybrid Perpetuals are not up to the usual. A good many blind shoots, especially on cut-backs. We have had a lot of rain and now want sunshine; if we get it Roses will be in time for the National Rose Society's show.

(*c*) Rose prospects uncertain; not so good nor so early as last year, but some warm sun right away will speedily alter matters.

CANTERBURY.

(*a*) An average season, rather inclining to late. The maidens are looking well and better than the cut-backs, but the late rains will improve matters all round.

(*b*) I think, on the whole, early. Hard pruning necessitated by the frost has produced excellent growth on most plants. J. B. Clark looks well and very promising; but Frau Karl Druschki seems exceptionally late and will have to hurry up to be in time for the National Rose Society's show. Teas look remarkably well, notwithstanding the hard time they had of it. All round I am satisfied with the outlook.

SURREY.

(*a*) Here, I think, we are early; not quite so forward as last season perhaps. Maidens are coming on well and look better than usual; certainly better than my cut-backs, which is unfortunate, as I have but few of the former. I think you may take it for granted that there will be plenty of Roses for July 2 of excellent quality, with a slight reservation as to Teas. Garden Roses, except climbers, promise well.

(*b*) Fairly early, especially if we have plenty of sun. Plants have stood still longer than I care about, and I am afraid Hybrid Perpetuals will suffer. Hybrid Teas are very promising. Garden Roses will be very good.

(*c*) About right for July 2. Nothing to grumble at; plants are growing nicely and look very well. Hybrid Teas best, as usual.

(*d*) Quite satisfied with appearances now. I think we can call the season early, but not remarkably so. Druschkis, for instance, are distinctly late. My Teas are going to be some good after all. The date should suit us very well.

SUSSEX.

(*a*) My Roses look very well indeed; foliage clean and healthy, but we want sun.

(*b*) My Teas are not up to my usual standard; Hybrid Teas have never looked so well; Hybrid Perpetuals are rather late, but should be just right for July 2.

(*c*) Season early—prospects good—feature, Teas. Maidens vary considerably; cut-backs are recovering from the wind and frosts of May.

WEST OF ENGLAND.

(*a*) Cut-back Hybrid Perpetuals are looking wonderfully well, and will be out by July 2 if the weather is seasonable. Other Roses are late and suffering from May frosts, but the new growths promise well and are wonderfully healthy.

(*b*) Badly cut by late spring frosts, not yet recovered, so prospects not of the brightest.

(*c*) Roses have made good clean growth and are very promising. Less green fly and grub than usual. We consider the season rather early, but as far as the South and West of England is concerned July 2 should find all sections well represented.

(*d*) Our Roses never looked better. The cool weather has retarded the flowering, or they would have been early; all are healthy and free from blight. At our best first week in July.

NORTH OF THE THAMES, MIDDLESEX.

(*a*) Roses have improved considerably this month, Hybrid Teas especially; they are early. Teas and Hybrid Perpetuals are late with us, but promise to be in by July 2.

(*b*) Roses are backward this year in this district (Hendon), but hope to be just right for July 2. We have had very few killed or hurt even by the frosts.

(*c*) On the whole Roses are looking very well. Hybrid Teas are looking better than Hybrid Perpetuals; too many buds of the latter are showing colour too soon—a bad sign. Maidens are late; many too late for July 2. The feature of the season has been the caterpillar.

(*d*) Season decidedly late and not too promising. A good many blind shoots, especially Mildred Grant; Hybrid Teas fair. Dean Hole is delicate here and has suffered badly. On the whole the trees have picked up wonderfully this last fortnight, maidens looking exceptionally well. In this district I should say it will be a Hybrid Perpetual year.

BERKHAMSTED.

(*a*) Notwithstanding severe winter and spring frosts and the cold days and slight night frosts of the present summer month, my Roses are, at the time of writing, looking remarkably clean and healthy.

Judging by the dates of flowering of the earlier varieties, this year, as compared with other years, is neither late nor early. With a continuance of the warmer weather of the last few days, the "National" promises to be an exceptionally large and beautiful show.

THE MIDLANDS.

(*a*) Severely cut by spring frosts, we are late; but growth is now rapid, and if we have plenty of sun should be able to show on July 2, early date though it is. Hybrid Teas and Hybrid Perpetuals are good. Teas poor.

(*b*) Our prospect of showing at the "National" is not brilliant. Mid-May frost hit us hard, and plants were cut down to the base. Growth is now starting, but we are nearly a month late.

NORTH.

Our Roses look splendid, never better. Season is early for us, and plants should be in flower by July 2. Hybrid Teas are, as usual, looking better than the other two classes, but our Teas are strictly limited. Garden Roses promise particularly well, and should be in full flower for the "National" on July 2.

I close this article by expressing my sincere thanks to all those who have assisted me in compiling it.

Purley. HERBERT E. MOLYNEUX.

FORTHCOMING EVENTS.

June 28.—Isle of Wight Rose Society.

June 29.—Southampton Royal Horticultural Society's Rose Show (two days).

June 30.—Richmond Horticultural Society's Rose Show.

July 2.—National Rose Society's Metropolitan Exhibition, Royal Botanic Gardens, Regent's Park.

NOTES OF THE WEEK.

"The Garden" Flower Show.—This will take place on July 28 next, as recorded in our advertisement columns. We may remind our readers of the necessity of collecting the coupons. The display of flowers promises to be of exceptional interest and beauty. In the advertisement pages we are printing the entry forms, which we hope all intending exhibitors will carefully read, fill up and return as soon as possible, and not wait until the last day allowed.

National Sweet Pea Society's outings.—As usual, two outings have been arranged for the members of the above society. The first will take place on Friday, July 9, when the trials at Messrs. Cooper, Taber and Co.'s grounds at Witham, Mr. William Deal's grounds at Kelvedon, and Messrs. E. W. King and Co.'s seed farms at Coggeshall will be inspected. On Friday, July 16, a visit will be paid to the University College Gardens, Reading, for the purpose of inspecting the society's official trials of Sweet Peas. Any member who wishes to be present at either or both of the outings must notify the hon. secretary to that effect on or before July 1.

The late firm of Hugh Low and Co.—In reference to the paragraph which appeared on page 286 of our issue of the 12th inst. there seems to have been a little misunderstanding about the dissolution of the partnership. In the paragraph above referred to we did not state that Messrs. Stuart Low and Co. were the successors of the old firm, although some have apparently taken it to mean such. We have since received a letter from Mr. Edward V. Low, who, we understand, has acquired a portion of the Orchid stock of the late firm and started in business as an Orchid specialist at Vale Bridge Nursery, Hayward's Heath. Mr. Stuart H. Low, we understand, has purchased the larger portion of the Orchid stock and also the other general stock of the late firm. The full terms of the dissolution will be seen announced in our advertisement columns.

The great Rose show of the year. In directing attention to the exhibition of the National Rose Society, which will be held in the beautiful gardens of the Royal Botanic Society, Regent's Park, on Friday, July 2, it may be interesting to give a few particulars as to the prospects of the coming Rose season. From reports which have been received from all parts of the southern half of England, the general consensus of opinion among Rose-growers appears to be that, notwithstanding the trying weather experienced during both the winter and spring, and also throughout the first half of the present month, there is likely to be an unusually large and fine display of Rose blooms at "The National," as it is familiarly styled by exhibitors, this year. The only thing that is now wanted to ensure its complete success is a continuance of the moderately warm summer weather we are now delighting in. Early in the month the prospects certainly looked very gloomy, but, as Mr. D'ombrain used to comfort me by saying "when the time of Roses has come there is sure to be plenty of Roses."—EDWARD MAWLEY, *Hon. Secretary, National Rose Society.*

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Artificial manures.—I have pleasure in replying to "A. W. M." that for nearly six years I have entirely dispensed with the use of farmyard manure, using only spent Hops with the addition of superphosphate of lime and sulphate of potash. It has proved successful, both on heavy clay soil and in my present garden, which is very light soil.—A USER OF SPENT HOPS.

A cure for slugs.—In answer to "Scott's" enquiry in THE GARDEN of June 12, I get the powdered alum from the chemist, and if (as is sometimes the case) there are some hard lumps, I pound it and put it in a flour dredger and sprinkle it round (not over, if I can help it) the seedlings, and no slug will pass the ring of alum. For small borders I sprinkle it all over the border before planting anything, and it kills all the slugs. I may add that the alum does not hurt the leaves of the plants, but it dries into white patches, so I avoid putting it on the leaves as far as possible.—ORANGE, *Slough.*

Ants and Roses.—The interesting note on Roses by "P. M. A.," which appeared on page 299, is interesting, as it records the fact of actual damage being done to vegetation by ants. I can fully support his statement, having had buds served in a similar way this year. My garden is simply teeming with these pests, and in the Onion and Carrot beds they have cleared off plants where the latter were apparently in their way; I mean they gnawed off the young seedlings as they came through the ground. Again, where a nest exists, vegetation apparently cannot or is not allowed to grow. I think the sooner the ant is regarded as a dangerous foe of the gardener the better.—AN ESSEX GROWER.

Bryony.—With reference to Mrs. Curgwen's note, may I remind your readers that Black Bryony is dicœcious (male and female separate plants), and unless you buy many plants you may get only male. When the berries from the hedges have decorated your room and are beginning to fall about, bury the long bunches, as they are, under a fence, some inches deep, and they will come up in a mass the next spring. The first two years you can move them anywhere, and the fourth year they will run into trees and hang down their lovely berries. I have raised quantities in this way. They sometimes suffer for a time from frost or wet. Thus last year a fine mass, which had berried some years, did not come up at all, but this year is already 10 feet high along the line; the top tubers had rotted, but those below came up. I have had seeds come up only the second year. The tubers in the hedges are too deep and too large to move.—J. R. D.

The Butterfly Tufted Pansy.—Tufted Pansies, or Violas, of the true tufted and continuous-blooming habit are always valuable, and for long continuance of bloom the Butterfly Tufted Pansy, Viola cornuta Papilio, is not surpassed, although its flowers are too informal in shape for those who are strict in the matter of form. Yet many of us will consider that in this informality lies one of the beauties of the flower. It is of such a shape that it reminds one of a butterfly, and hence the name of Papilio has been given to it by its raisers—a German firm, if I recollect rightly. The general effect of the flowers of the plant is like that which would be presented by one on which a number of blue butterflies were about to alight, the ground colour being a good blue, with a little white and some darker markings. The blossoms are very numerous, and are produced for many months in succession. They are, indeed, so continuously yielded that, save in very severe winters, there are some blooms on the plants at any time throughout the year. This Viola is easily raised from seeds, and comes remarkably true in form and colour. There are, however, signs of greater sportiveness in these respects, and some so-called improved forms and others with different colours are now on the market. The more formally shaped of these are no gain to us for garden purposes, and those with different colours from those of the type will require to be good indeed to supersede the original Viola Papilio. Seeds can be sown any time during the summer either in the open or under glass, and in many gardens self-sown seedlings abound and are available for transplanting to where they are to bloom.—S. ARNOTT, *Dumfries.*

IRISH NOTES.

BOG BED AT GLASNEVIN.

AT the present time the bog bed at Glasnevin stands out as one of the brightest corners of the garden. Calthas, Primulas and Trollius are the leading features in the colour display. Caltha polypetala from Asia Minor seems to flower better when fully established; this year it is bearing a dozen strong flowering stems. But some of the newer kinds of Trollius, obtained from Mr. T. Smith of Newry, are far brighter than the Calthas. Here, given a rich soil and never suffering from want of moisture at the root, they seem quite at home, making fine branching flower-stems 2 feet to 2½ feet in height. Freedom has large clear yellow flowers, while Goldsmith is very strong and vigorous, bearing deep yellow flowers with orange stamens. Trollius Orangeman is one of the best, a deep rich orange and semi-double, an advance on the Orange Globe. T. Smith is said to be the largest yellow-flowered Trollius, and Prince of Orange is its orange-coloured counterpart.

THE BUTTERFLY VIOLA OR TUFTED PANSY IN A SCOTTISH GARDEN.

Near to the bog bed, on higher ground, is a glorious plant of the rare Rhododendron yunnanense, one of Abbé Delavay's discoveries. The Glasnevin plant is 5 feet high by 4 feet through, and is one mass of flower—scarcely a leaf can be seen; it seems an exceptionally free-flowering form, and differs in some respects from the type. The type has a pinky white corolla dotted with blood red spots and red anthers; the Glasnevin plant has a creamy white corolla, 1½ inches across, spotted with yellow and yellow anthers.

The Chinese Xanthoceras sorbifolia is full of flower this year. The racemes are very close and compact. On opening the flowers are white, with a lemon base, changing to red as the flowers get older. The generic name is derived from four large yellow, horn-like nectaries found between the petals. At Glasnevin the plant is represented by a fine specimen 12 feet high by 14 feet through. The rock garden is also looking quite bright, and several uncommon plants may be seen.

Viola bosniaca is a gem and flowers continuously. It is thriving in both a sunny place and a partially shaded one. In colour it is quite distinct, being a deep shade of lavender with purple marking and a yellow eye. The Mont Cenis Viola (V. cenisia) is more close and compact, producing all its deep purple flowers at once and so freely that it quite hides the foliage. One does not see Veronica filiformis too often. It is a native of Asia Minor and an elegant little plant about 9 inches high, a free grower and easily propagated by cuttings. The trailing stems are covered with fine thread-like leaves and bear long racemes of white flowers beautifully veined with purple. From the same country comes V. cinerea, its deep blue flowers being very telling against its silvery foliage. It grows about 6 inches high, but unfortunately requires the protection of a sheet of glass through the winter.

Two silvery leaved dwarf Milfoils from Sündermann have proved quite hardy; Achillea Kellereri has long, narrow leaves, beautifully serrated, and compact heads of white flowers produced in summer and autumn, and A. Wilgethis produces loose heads of white flowers. The Lungworts are a family which are not generally admissible to the rock garden; but there is a pleasing purity about the flowers of P. arvernense alba which, with its compact, dwarf habit, makes it quite a desirable plant. The type is also the best blue in the family.

The new Chinese Cotoneaster adpressa should be planted so that it can trail downwards on a fair-sized stone. Here it has formed a pretty network of branches closely pressed to the stone. These branches are now studded with small red flowers. In the autumn the leaves change to crimson before falling. Geum rhæticum is an interesting and pretty plant, supposed to be a natural hybrid of G. montanum and G. reptans, found on Monte Rosa. The golden yellow flowers are bright and early, followed by plumed heads of seeds similar to those of the Pulsatilla. Geum rivale Leonard's variety has a large and more open flower than the type, of quite a unique colour, resembling crushed strawberry. Geum bulgaricum, which looked so promising from its large, bold foliage, has a poor miserable flower of a washy yellow. Calandrinia leana from California is by no means common; it was presented to the gardens by Mr. Gumbleton, and is now bearing pretty flesh-coloured flowers veined with a deeper pink. Many more plants of interest are to be seen, but lack of space will not allow me to mention these. C. F. BALL.

THE FRUIT GARDEN.

FRUIT NOTES.

WATERING AND FEEDING STRAWBERRIES. — When the Strawberries are swelling heavy crops of fruit, it is something to their disadvantage that the weather is often extremely dry, and the result is that the fruits do not attain to as large a size as they would do if more food were available for the roots. In the majority of instances it is excellent practice to compensate for this by heavy soakings with clear water and, in the possible event of there being a shortage of food in the soil, by the application of weak liquid manure. If it is decided to give either or both of these things, the grower must draw back the mulching material prior to commencing, and when the water and liquid manure have been given and the surface has dried a little the mulch is replaced. It will be imperative to keep the water away from the fruits and also, of course, the liquid manure, and in no circumstances whatever must the latter be strong.

LAYERING STRAWBERRIES.—The general rule in British gardens is to maintain a cycle of three in the Strawberry plantation, so that each season we have one, two and three year old plants in crop, the latter being grubbed as soon as the whole of the fruit has been harvested. It is true that in some gardens, and with some varieties, it is found far more profitable to rely exclusively upon one year old plants, while in other lands the plants become poor after they have borne two crops. These, however, are the exceptions, since we expect to get splendid fruits and grand stock from one year old plants, rather heavier crops of equally fine fruits from those two years old, and the heaviest crops of all from those three years old. In the first and second seasons in normal soils the quality and size of the fruits are about equal, but in the third year, although we secure the bulk, the fruits, as a rule, fall a little in size. There have been many instances of plantations remaining profitable after three years, but, generally speaking, it is wise to stop at that age.

SELECTING STOCK PLANTS. — There is no doubt that where it is possible to secure all the necessary runners from plants that have not carried a crop they will yield the earliest and finest plants. At the same time, it should be regarded as essential that the stock plants have produced flowers, as they will thus have proved their capacity to fruit had they been allowed to do so. There are some growers who assert that it is immaterial whether the runners are taken from barren or fruitful plants; but the consensus of opinion is in favour of the latter, as barren parents have been proved over and over again to throw barren progeny. Desirable as one year old unfruited plants are for purposes of propagation, it must not be thought that they are imperative to success; this is by no means the case.

METHODS OF PROPAGATION.—There are three distinct methods of laying down the runners, and each grower will choose the most convenient for himself. The most popular system is to peg down into the soil in the alleys, and this is good provided that special compost is incorporated with the ordinary soil; the second system is to set the plantlets down on the surface of the soil in small pots, which are sunk practically to their rims to reduce the necessity for watering; and the third system is to peg down on the surface of inverted squares of turf plunged grass side downwards in the soil. A fourth system which is occasionally adopted is to peg down into soil in 6-inch pots; but the watering will have to be done with the most extreme care in this case, or the soil will be soured before roots are working freely in it, and the result will be failure.

FRUIT-GROWER.

TREES AND SHRUBS.

WISTARIA MULTIJUGA ALBA.

AS a companion plant for the well-known Wistaria chinensis no more appropriate subject could be chosen than this, while for covering the roof of a pergola it would be difficult to think of a better climber. Although it has not the long inflorescences of W. multijuga, it possesses its free-flowering peculiarities, and the pendulous racemes, 6 inches to 9 inches in length, of white flowers are extremely beautiful. W. multijuga is a Chinese species, and the white variety is also of Chinese origin. It can be propagated by layers or it may be grafted on to roots of W. chinensis. At Kew it may be seen in several parts of the gardens, fine beds of it existing near the Succulent House and the Palm House. The plants in these beds are supported by iron stakes, and the side branches are kept spurred back. On the spurs that are formed in this manner flowers are borne with great freedom. In one case branches from plants growing near the outside of the bed have been carried to a higher stake in the centre, and from these branches the full beauty of the pendulous racemes can be noticed. Grown on a pergola, this plant and the better known W. chinensis are even more beautiful than when grown on stakes, as the racemes can be seen from below. When, however, stakes have to be employed the great point to note is to keep the side branches spurred back regularly so that they do not become entangled, which takes away the effect of the flowers. A good method of growing this or any other Wistaria is to let it ramble at will over a somewhat thin-headed tree, such as a Laburnum. Grown in this manner it is very beautiful.

D.

THREE GOOD SHRUBS.

CYDONIA AUREA SUPERBA.—The Cydonias are all very popular for the covering of walls, and early in April we had this one in full bloom here. The flowers are of a bright scarlet, which makes it very conspicuous. It is planted against a south wall, which situation the plants like, but one with a western aspect will do equally as well. They will also thrive in any ordinary garden soil. Pruning may be done about November or December. This consists of shortening the current year's shoots to about an inch or so, leaving those at the ends of the main branches a little longer. Propagation may be effected by means of the current year's shoots, with a heel of old wood attached, inserted about September out of doors, or by layering in October or November.

RHODODENDRON PRÆCOX.—This beautiful shrub was also in full bloom at the time named above. It is of a dwarf habit, only attaining a height of about 2 feet 6 inches, which makes it very useful for the front of shrubberies. The flowers are of a pale pink colour, the best effect being obtained when two or three plants are grouped together. A good sheltered situation and a peaty soil suit it admirably.

STACHYURUS PRÆCOX.—This shrub is a native of Japan, and also succeeds best when planted against a south wall. The flowers, which are borne on small spikes, are small and of a yellowish green colour. They appear in great profusion before the leaves unfold. It may be propagated by means of half-ripened wood inserted in sandy soil in a cold frame in September, keeping the cuttings well shaded until the roots form.

R. H. DONALDSON.

Culzean Castle Gardens, Ayr, N.B.

A NEW HARDY FLOWERING SHRUB.

DURING the last decade there have been many valuable additions made to those flowering shrubs which may be regarded as hardy in this country, but it is doubtful whether any will prove more welcome than Viburnum Carlesii, a beautiful white-flowered shrub, introduced to this country from Japan in 1902. It is, however, a native of Corea. It forms a rather low-growing, spreading shrub and flowers earlier than most of the members of this family. The flowers, which open in May, are borne in large, irregular-shaped, rather flattish clusters at the ends of the branches, and when they first open are slightly tinted pink, changing to pure white with age. A pleasing and distinctive feature of the flowers is their delicate, yet pronounced, fragrance, which to many will render the plant most valuable. The leaves are of medium size and dark green in colour, with a crinkled and somewhat hairy surface. Last year, when shown before the Royal Horticultural Society, this shrub received an award of merit, and this spring the award was increased to a first-class certificate. Another beautiful member of this family is V. tomentosum plicatum, which has large roundish, heads of white flowers, which are usually sterile. All the Viburnums like a rather rich, deeply cultivated soil, and given this they make little demand on the cultivator's time.

THE KITCHEN GARDEN.

THE CUSTARD MARROW FOR SUMMER AND AUTUMN USE.

THE value of the Custard Marrow for use from June to October is much overlooked, as this vegetable is of great value when the best variety is required, and the fruits, when cooked quite young, are delicious, either as a vegetable with meat or as a dressed or second-course vegetable. Many regard the Vegetable Marrow as a poor, flavourless vegetable; and grown large, with a mass of seed to scoop out before use and a good depth of hard rind to pare away, it certainly is not of great value; but the fault lies not with the vegetable itself, but its culture and the way it is served.

For years in the pages of THE GARDEN I have advocated growing smaller fruits, cooking them when young in a whole state and without any peeling. Treated thus they are delicious. In the home garden the Custard Marrow is, I consider, one of the best summer and autumn vegetables, and as far as quality is concerned, I do not think we have any vegetable superior if treated properly. I have, with glass culture, tried to grow this vegetable all the year round; but I do not advise it, as the crop is too poor in the winter. For gardens limited in size the Custard Marrow is most suitable, as most of the forms are dwarf and compact.

More varieties are grown on the Continent than we have, and these are nearly all bush forms; but I do not consider any of them equal to the Trailing Custard we grow in this country. Sutton's Improved Custard is a splendid vegetable of trailing habit, and grown on a low fence or support it is most ornamental during the summer months. Of the Continental forms there are yellow, white and green coloured fruits; some are much warted and others much indented, and some are flatter. The best of this type is the White Bush Scallop Custard. The Green Custard is very distinct, of a good size and a deep green colour when young. Another very distinct fruit is the Orange Custard, which is a bright orange colour when fully grown. The Custard Marrow during growth gives great quantities of fruit and well repays ample food in the shape of liquid manure; and an open, sunny position and good soil, the plants not being crowded in any way, are also desirable. I have found it a good plan to plant on a sunny border, giving each plant a little decayed manure and cutting the fruits daily during the summer.

G. WYTHES.

THE GREENHOUSE.

SUMMER TREATMENT OF HIPPEASTRUMS.

WHERE many growers fail to obtain satisfactory results with these gorgeous warm-house bulbs, the treatment after flowering is usually at fault. I have known men put the plants under the stage as soon as the flowers have faded, and then grumble because their plants only produced a few feeble leaves and no flowers the following spring. Something a little different from this is necessary if we wish to get fine blooms every year. As soon as the flowers fade place the pots in a warm stove, so as to induce the plants to make fine leaves rapidly. Any repotting should also be done at the time the plants are placed in heat, but overpotting must be avoided. A good top-dressing with very rich soil is better in most cases, feeding afterwards with weak liquid manure. As soon as the plants have made full growth, usually early in June, remove them to an open stage in a very sunny greenhouse. Give abundance of air and water carefully until the leaves begin to turn yellow, when water must be gradually withheld, although even during winter the soil should never be permitted to become dust dry. Store the plants in a fairly warm place until growth once more shows.

Preston House, Linlithgow. C. BLAIR.

LÆLIO-CATTLEYA MIKADO.

THIS is a very fine addition to the bi-generic race and a plant that is sure to be much in demand when the stock has been increased. The sepals and petals are a very pure, rich canary yellow colour, the labellum being rich velvety carmine with a narrow margin of pale yellow, some rich orange colouring being present in the throat. The plant was shown by Lieutenant-Colonel Holford, C.I.E., C.V.O., Westonbirt, Tetbury, Gloucestershire, before the Royal Horticultural Society on the 8th inst., when it received a first-class certificate.

GARDENIAS.

PLANTS that are growing in 4½-inch pots and are full of roots should be repotted into 8-inch ones, after which pinching should be discontinued. Later-rooted cuttings in small pots must be kept near the glass and pinched occasionally in order to form bushy specimens. All cut-back plants that have made growths from 1 inch to 2 inches long should be repotted into larger pots, using a compost of equal parts turfy loam and peat, adding bone-meal, charcoal and coarse silver sand.

THE FLOWER GARDEN.

THE TREE PÆONIES.

ALTHOUGH the native country of the Tree Pæony (Pæonia Moutan) is officially given as China, it is in every respect, I think, more closely associated with Japan, and it is due to our Eastern allies that we have the many forms and beautiful colours so peculiar to that land of beautiful flora. The gorgeous colours and size of the flowers appeal to almost every lover of gardening, and this, together with their easy culture and perfect hardiness, does, no doubt, make them popular. Among the shrubs at this season of the year they are an acquisition, and given liberal treatment and a somewhat sheltered position (merely for the sake of the flowers, which are badly damaged by much wind and the effect of bright morning sun on them after frost) these will make good growth and develop into nice specimens. Their appearance would suggest that they are gross feeders, so that it is essential at the time of planting that the ground be well enriched with some good farmyard manure and, if the ground be of a tenacious character, a little turfy loam and road scrapings will be of great advantage, at the same time applying a dusting of bone-meal. During spells of dry weather they will be greatly benefited by copious applications of water, and when firmly established, liquid manure, properly diluted, may be given with advantage. There are a great number of varieties under native names to choose from, ranging in colour from purest white to crimson. As these better varieties are all grafted on common stock, any growths that may arise therefrom should be rubbed out, as if allowed to remain they will soon outgrow and rob the variety. Among the varieties I know, for colour there is none to surpass

Toyo-no-homare.—This variety is of somewhat smaller dimensions perhaps than others, and has beautiful rich deep scarlet petals and yellow anthers. A fine flower and plant in every way.

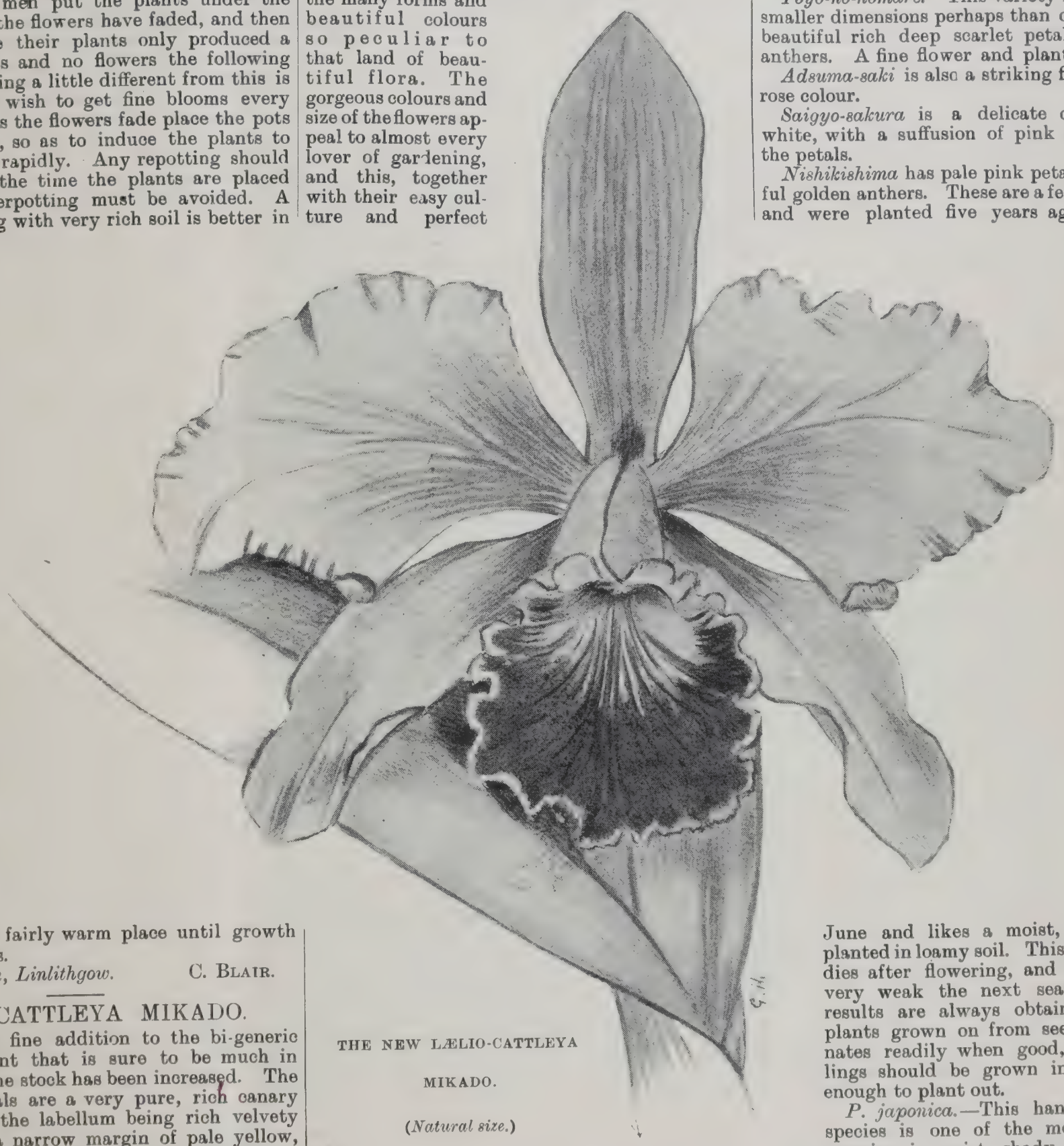
Adsuma-saki is also a striking flower of a deep rose colour.

Saigyo-sakura is a delicate colour, hardly white, with a suffusion of pink at the base of the petals.

Nishikishima has pale pink petals with beautiful golden anthers. These are a few we have here, and were planted five years ago, when quite small, and some of our plants are now carrying many fully expanded flowers.

E. BECKETT.

Elstree.



THE NEW LÆLIO-CATTLEYA MIKADO.

(*Natural size.*)

HARDY PRIMULAS

(*Continued*)

PRIMULA INVOLUCRATA (P. Munroi).—A Himalayan plant having creamy white flowers with a yellow centre, borne in umbels on stems about 6 inches high. There is also a variety grown with flowers having a shade of blue. It flowers in June and likes a moist, shady position planted in loamy soil. This plant frequently dies after flowering, and if it survives is very weak the next season. The best results are always obtained from young plants grown on from seed. This germinates readily when good, and the seedlings should be grown in pots till large enough to plant out.

P. japonica.—This handsome Japanese species is one of the most effective for growing in moist, shady places. By the side of a stream it grows to a large size with stems over 2 feet high, bearing several whorls of flowers on each. These are of various shades of colour, from deep crimson to pure white, and make a most brilliant display when planted in large groups. Self-sown seedlings spring up around the old plants in profusion and need to be thinned out considerably. Seed if kept and allowed to get dry takes a long time to germinate, but when planted in a suitable place there is no lack of young plants for succession, although the old ones usually die after flowering.

P. kitaibeliana.—From the Eastern Alps, with pinkish flowers and glandular pubescent leaves. It is intermediate between P. hirsuta and P. integrifolia.

P. longiflora.—A beautiful and distinct species from the mountains of Southern Europe, with lilac flowers having tubes 1 inch or more in length. It will grow under similar conditions to those which suit P. farinosa, the flowers being produced in May and June. Like the above-mentioned species, it has leaves powdered with meal.

P. luteola.—A handsome plant with large, bright green leaves and umbels of yellow flowers from the Eastern Caucasus. Till recently it has been somewhat rare in gardens, but is now becoming more plentiful. It is a moisture-loving species and will flourish under conditions accorded to P. sikkimensis. It is rather near P. auriculata, but with larger and yellow flowers.

P. marginata.—From the Alps of the Dauphiny and Piedmont, this is sometimes confused with P. Auricula var. marginata. P. marginata is one of the easiest to grow, as well as being one of the longest lived Primulas, either planted out in a sunny place in the rock garden or grown in pans for the alpine house. It is worth growing for its leaves alone, some forms having margins of great beauty with sinuate golden edges. The plants form branching stems, each bearing a rosette of the powdery leaves. In the type the flowers are pale lilac, while there is another form, densiflora, with rather smaller purplish rose coloured flowers. It grows well in gritty loam, with plenty of broken limestone mixed with the soil.

P. megaseæfolia.—This winter-flowering species was introduced into cultivation in the year 1900 by Mr. Carl Sprenger of Naples. It comes from the mountainous region of Lazistan in Asia Minor, and is peculiar in that it belongs to a group the types of which are Chinese. It is a handsome species with round, leathery leaves of good size, and stems about 1 foot high bearing umbels of pale lilac or rose purple flowers. An easy plant to grow, it may be propagated readily by dividing the root directly after it has finished flowering. The pieces may be either potted up in a mixture of sandy loam and leaf-soil and kept in a cold frame, or planted right out in the rock garden. On account of its flowering in the winter, it requires a very sheltered position outside, but its chief value will be for the cold house, where in pans it continues flowering from December onwards through the winter. It should be grown in a north frame during the summer months.

P. minima.—A very small plant with crowded tufts of coarsely toothed leaves. The very large flowers, which are produced singly or in pairs on short stalks, are of a violet rose colour, and the petals are deeply bifid. It occurs only in granitic soils in the Central and Eastern Alps. It needs abundant moisture at the root, and should be planted in porous soils. With these conditions it will do in full sun, but half shade is best in this country.

P. nivalis is a rare and handsome species found in the Caucasus and Siberia. It is a bog-loving plant and variable in habit, due to its wide range.

P. obtusifolia.—Plants in cultivation under this name are generally all P. sikkimensis.

P. officinalis.—The Cowslip is such a well-known plant that it is unnecessary to say much about it. Spread all over Central and Northern Europe, it has been in cultivation in English gardens since the sixteenth century. With P. elatior it is the origin of the popular Polyanthus strains, and is generally found in moist meadows.

P. ovalifolia.—So far little success has attended the cultivation of this Western Chinese plant in this country. It has rounded leaves and violet purple flowers, and is stated by its introducer to carpet the woods in its native home. Evidently the conditions available here are not suitable for its well-being.

P. Palinuri.—This rare and curious species comes from Italy, where it grows in the fissures of rocks above Cape Palinuro. In appearance it is somewhat like P. Auricula, but with very much larger and greener leaves and small yellow flowers on stout stems, which grow out of the soil to a good length. It prefers a north aspect, wedged in between pieces of sandstone, and is quite hardy at Kew, where a large plant has been growing for many years planted among stones at the base of a small Pine, where it gets well dried in summer.

P. Parryi.—A native of the alpine regions of the rocky mountains of Colorado; it is a bog-loving plant with erect leaves and intense crimson flowers in large umbels. One of the handsomest Primulas, it does not flourish everywhere, but does best when planted in rather moist, spongy soil that is well drained and never allowed to get stagnant. Seeds germinate freely, and young plants may be grown in small pots plunged in a shady frame. It likes a soil composed of a mixture of peat and loam with leafy soil.

P. pedemontana.—A close ally of P. viscosa, this plant differs from it chiefly in its rhomboid leaves with short petioles, thinly covered with brown hairs. It is a native of the Graian and Cottian Alps in the Piedmont, and is a beautiful species with large rosettes of leaves and bright crimson flowers. It will grow well in the joints of rocks in half shade, flowering in April.

P. Poissoni comes from the mountains of Yunnan in Southern China, and is quite hardy in ordinary winters when planted in a rather sheltered place. In habit it is something like P. japonica, but it is easily distinguished by its glaucous leaves. Growing about 12 inches high, the violet rose coloured flowers are disposed in whorls of eight or more on each. It is readily raised from seed and grows freely, succeeding well in moist, loamy soil in a shady or even sunny position. Like many others of this family, plants frequently die off after flowering.

P. pulverulenta.—This fine plant, which was introduced by Messrs. Veitch, through Mr. Wilson, from Western China, was at first considered only a form of P. japonica. It has, however, distinctive characters, and deserves to rank as a species. In habit and foliage it resembles P. japonica, but differs in having larger and more richly coloured flowers, and in the flower stems and calyces being thickly coated with a white mealy powder. Growing in strong, moist loam to a height of over 2 feet it is a most effective plant, either singly or in large masses. Like P. japonica it is readily raised from seeds sown as soon as they are ripe, and it will flourish under the same conditions.

(*To be continued.*)

LAVATERA ROSEA SPLENDENS.

THE TREE MALLOWS.

(LAVATERAS.)

PROBABLY there are about two dozen species of Lavatera known, the majority of which are natives of the Mediterranean region and Western Europe. One species is found in Australia, while others occur wild in the Canary Islands and in Central Asia. Under cultivation in English gardens two species only can be said to be of importance, one of which, however, may be classed among the most beautiful and showy of the hardy annuals we possess. This is L. trimestris. The genus belongs to the Mallow family and is nearly allied to Malva, from which it differs chiefly in the lobing of the outer envelopes of the flower. The name was given by Linnæus in honour of two naturalists (brothers) called Lavater, who lived in Zurich during the eighteenth century.

L. trimestris.—This is the best and the commonest of Lavateras in gardens. It is an annual, and is a native of Southern France, Spain, Morocco and most of the countries that surround the Mediterranean Sea. It was first introduced to Britain in 1633, and is certainly one of the showiest of hardy annual plants, growing about 3 feet high. The leaves towards the base of the stem are larger and more rounded than those towards the top, where they become narrow, pointed and lobed. The flowers are each 3 inches to 3½ inches in diameter, and in the typical plant are of a bright rose colour with a patch of maroon in the centre. In the variety alba they are pure white. The flowering season extends from July to September. The flowers, especially of the one illustrated (L. rosea splendens), are charming for indoor use; the greater part of the stem, with its open and unexpanded blossoms, should be cut and arranged in vases, &c., in which the blooms will continue to open and remain in full beauty for several days. The plant is worth growing in a reserve plot for this purpose alone. The seed, which can be purchased cheaply from any seedsman, may be sown in March or early April on the border where the plants are desired to grow and flower, thinning them out when an inch or 2 inches high. Like most of the Mallow family, the plants like a deeply dug and well-enriched soil. The variety malvæformis, discovered by the late Mr. John Ball at Reraya in Morocco, has smaller flowers of a pale purple colour.

L. arborea (the Tree Mallow, or Sea Mallow).—This is a shrubby species abundant near the sea

in various parts of South-Western Europe and in the British Isles. It has been gathered wild in the south-west of England, in Ireland, and on the Bass Rock in the Firth of Forth, always near the sea. Inland, in the latitude of London, it is not hardy, but in the gardens (often cottage gardens) near the coasts of Cornwall and Devon it is very often to be seen. Under cultivation and grown in rich, deep soil it reaches 6 feet to 10 feet in height, and has thick, succulent shoots bearing large, soft and many-lobed leaves. The flowers are each 2 inches to 3 inches across and pale purple. A more showy and attractive plant than the type is L. a. variegata, a form sent out many years ago and given a first-class certificate by the Royal Horticultural Society. It is, unfortunately, no hardier than the green-leaved plant, and requires protection in winter, but it is very striking when well grown and in full vigour, the leaves being splashed with large, irregular patches of white. It is worth growing in an unheated or cool greenhouse and can be propagated from cuttings, while it comes fairly true from seed.

MYDDELTON HOUSE: ITS GARDEN AND ITS GARDENER.

AFTER several attempts to hit upon a suitable title for the article the Editor has asked me to write, I have come to the conclusion that the above is as accurate and as suggestive as any that I can choose. To begin with, the garden is Mr. Bowles's father's, and although he has very nearly a free hand, there are, I fancy, just one or two little restrictions which he has to observe. For example, he may not take in *all* the nice meadow land, some of which is so temptingly near the rockery; nor may he fill all the hedgerows with his untidy plants, or if he does they will have to take their "luck" when the stern decree goes forth that the hedges must be cleaned.

With these exceptions there is very little that he may not do. Practically he has a free hand, and the result of the wisdom of the father and the skill and taste of the son is a most interesting and varied garden. Mr. E. A. Bowles is known in gardening circles as one of the most prominent members of the Royal Horticultural Society. Not only is he a member of the council, but for the last two or three years he has filled with great ability the difficult position of acting vice-chairman of the scientific committee. In my opinion it is a case of the round peg in the round hole. His wide botanical knowledge and his love of "rarities" and "forms" and proper sorts of monstrosities, such as I fancy the old illustrators of garden-life had a weakness for figuring in their plates, mark him as an ideal man for the post. The difficult questions, the interesting experiments, the out-of-the-way plants and the curiosities of vegetable-life that come before the committee are just what he delights in. Naturally the man is reflected in his gardening; and what we see at Myddelton House is the materialised spirit of a gardener-botanist of varied and wide interests and tastes. Here is a rockery full of all kinds of choice things, big and little. Here, again, are frames and pots containing almost all the known Crocus species that can be grown in the British Isles, in addition to endless hybrids of his own raising. There is a pergola, whose oaken posts and cross-beams support many kinds of hardy Vines and climbers, while the flat stone walk underneath is full of tiny treasures.

In another place we come across some stone steps and balustrades which would be bare if our visit was in any but the hot part of the year, but which are then occupied by pots and flat pans full of succulents which come here for their summer health-giving change. Here, too, alongside the New River, which was made by Sir Hugh Myddelton in the reign of James I. and which runs right through the garden, is a wide, circular terrace with a row of round beds filled in the spring with Darwin Tulips and Miss Willmott's deep blue Forget-me-nots, and later on with such things as scarlet Geraniums. It is the one place in the whole garden where some concession is made to the mid-Victorian "bedding craze." Then there are outdoor collections of succulents, varieties of flat-stemmed Opuntias, Cereuses and Echinocactuses made in 1899 and still flourishing, kept alive with the help of large glass lights, which are put over them to throw off the winter rains and then entirely removed. In the borders we find in one part many of the best kinds of May-flowering and Darwin Tulips, and in another fine groups of different kinds of Eremuruses, or many forms of the two early blue Anemones, or various Eucalyptuses and flowering shrubs.

The garden is a very old one, and at one time its owner must have taken a special pride in lead-work; some excellent specimens in the shape of 6 feet high ostriches still stand sentinel over the river. The present Lord High Gardener has a weakness for great earthenware oil-jars and weird water-jugs, which he a-sort-of-half collects, especially if they have a little historical interest attached to them; *e.g.*, two of his very latest jugs were bought in Holland when the little Princess Juliana was born, and now every plant that is watered by them thinks it is drinking to the health of the little baby whose life is so precious to our Dutch cousins.

I feel sure it will be of considerable interest if I pass from the general to the particular, and give a more or less complete list of what Mr. Bowles himself calls his proudest treasures: (1) The large collection of Crocus species and hybrids; (2) his Snowdrop forms; (3) Asparagus verticillatus – grows 15 feet high each season and bears a fine crop of berries; (4) Asparagus acutifolius, a fine plant in the rock garden; (5) four square yards of Amygdalus nanus (the dwarf Almond); (6) a well-established mass of Gunnera manicata—it has leaves 7 feet high; (7) Petasites japonica gigantea — the leaves are used by the Japanese as umbrellas; (8) Eucommia almoides, the hardy rubber-producing tree; (9) two hardy Orange trees (Ægle sepiaria)—they are about 7 feet high and were grown from the pips of Oranges ripened in Canon Ellacombe's garden at Bitton; (10) Nandina domestica, a fine specimen 6 feet high; (11) Lathræa clandestina, a curious parasite which grows on the roots of a Weeping Willow; (12) seven species of Acanthus; (13) Trachycarpus excelsus, a hardy Palm, which under the shelter of the house flowers each season; (14) Tulipa Batalinii var. Sunset, a pink variety of the well-known and lovely Batalinii; (15) his fine collection of succulents in pots.

Let us now suppose the day is wet, or that one is tired, very probably you will be invited into Mr. Bowles's sanctum—a small room lined from top to bottom with botanical and gardening books, rare and everyday, old and new. But it is not these that I have brought you there to see; it is to ask him to show you his beautiful sketches of Snowdrops. The casual observer as he sees them growing would only notice some difference in the size of the blooms, or in the green shade of the leaves; but when the flowers are carefully examined, differences innumerable appear, not only in the markings of the inner segments, but also in the shape and size of the great white outer divisions. He is trying to collect and picture all the known forms, and his series of sketches will be of great historical interest apart from their beauty. Possibly, too, lying on the table there will be an unopened box from Montenegro, or a few glass vases in which are some recently opened Snowdrop plants from Bowden, or there will be the cover of a package from Italy, or an exchange list of the botanical garden at Tunis, or a letter from Canon Ellacombe, or some beautiful photographs of the garden done by a local man in the village, or a half-finished article for some magazine or paper, possibly about his bird friends—the raven or the gulls—possibly about some abstruse question of Crocus nomenclature. This sanctum is the kernel, at once the protection and the endosperm of the gentle life whose spirit has made possible the singularly varied, interesting and scientific garden that surrounds Myddelton House.

JOSEPH JACOB.

IN THE GARDEN OF MYDDELTON HOUSE, ENFIELD.

GARDENING FOR BEGINNERS.

RAISING PANSIES. BROMPTON STOCKS AND THEIR CULTURE.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN. — The lawn or grass plot will need attention during the very hot weather that is usually experienced at this time of the year. Usually grass at the end of June presents a very rusty and dull appearance, mainly owing to drought, and where an ample supply of water is available the trouble

1.—SEEDLING PANSIES READY FOR PRICKING OFF.

can easily be obviated. A hose-pipe with one of the many useful sprinklers now on the market attached to it will usually keep the grass green and fresh, it only being necessary to move the sprinkler from time to time so that the whole lawn receives a good soaking. Mowing is not likely to be needed quite so frequently as it was in the spring, and it is wise to raise the blade of the machine so as to leave at least 1 inch of the grass. If very close cutting is resorted to, the roots of the grass are exposed to the fierce rays of the sun, much to their disadvantage. The present is a good time to make a sowing of the old Brompton Stock to provide plants for flowering early next summer. I prefer to sow the seeds where the plants are intended to flower, and advise this wherever it is possible. Given a well-drained soil and preferably one containing a good percentage of old mortar, plants from seeds sown now will pass through an ordinary winter unharmed. Of course, thin sowing and an early thinning of the seedlings are necessary so that sturdy and bushy specimens may be obtained. Staking, tying and thinning are items that will demand much time just now, and the wise grower will see that they are not neglected.

Vegetable Garden.—Tomatoes that were planted out early in the month are now growing very rapidly, and the earliest have already set some fruits. Care must be taken to pinch out all side shoots as soon as they become visible, keeping each plant to one or two stems; usually one only is preferable. Should the weather be very dry, water must be applied, giving each plant a thorough soaking when the work is done. Tying, too, must not be neglected, no matter whether the plants are growing against a wall or in the open. The cutting of Asparagus must now cease if we desire good heads another season, and before growth becomes very high and thick the beds should be cleared of all weeds and given a general tidy up. Should any liquid manure be available, this may well be given to the plants, as it will assist them in building up strong crowns for next year.

Fruit Garden.—In warm localities there will now or shortly be some Strawberry runners ready for layering, and the earlier this work is done the better. Young plants secured now and planted out during August will give a good crop next summer. Pots 2½ inches in diameter are the best to use, and each should be filled with good ordinary potting soil, the latter being made moderately firm. Then sink each pot to its rim in the soil of the Strawberry bed and place the embryo plant in the centre, a rather flat stone laid on the runner close up to the young plant sufficing to keep it in place and, at the same time, preserving moisture in the soil. When plunged thus, the soil in the pots does not dry up nearly so quickly as it would do if the pots were merely stood on the surface. It will be necessary to give water should the weather prove dry, and if due attention is given to this the plants will quickly root. When the pots are filled with roots, the runner may be severed and the young plants stood closely together and shaded for a few days. Do not propagate from barren plants, and only take one plant from each runner.

Greenhouse and Frames.—Such hard-wooded plants as Acacias, Ericas and Rhododendrons (Azaleas) may now be stood, or rather plunged, outside in a bed of ashes in a partially shaded position, provided they have been well hardened by free ventilation for some time previously. This outdoor treatment hardens up the wood splendidly and lays the foundation for a good crop of flowers another spring. A light syringing overhead about 4 p.m. each day will be much appreciated by the plants, and will assist in keeping insect pests under. Watering, shading and ventilation must have strict attention now if the weather is hot, otherwise much harm will quickly be done to the plants. Feed all specimen plants, such as Fuchsias, with weak liquid manure where they have filled their pots with roots, and pot on any younger plants that need it.

H.

RAISING TUFTED AND OTHER PANSIES FROM SEED.

PANSY seed may be sown at almost any time. In the early months of the year the seed should be sown under glass where a little bottom-heat can be given. March and April are excellent months for spring sowing, and under ordinary conditions the resulting seedlings will flower satisfactorily the same year. Seed may be sown at the present time either under glass, on a hot-bed, or, if preferred, in a bed made up outdoors. When artificial heat is employed the seedlings are brought into being earlier in consequence, so that by these means from present sowing it is just possible a large number of the plants would flower during the present season, though very late, of course. These seedling plants would naturally come into flower very early next spring. A sowing made outdoors in July and August would provide a grand display next March and April in a normal season, but care would have to be taken to prick off the seedlings in specially prepared beds in good time in the autumn.

I am more especially interested at the moment, however, in raising a batch of Pansies as soon as possible, and for this reason desire to show how this is to be accomplished. I prefer to sow the seeds in seed-pans or shallow boxes and to place these in a frame or on a hot-bed to assist the germinating process at this period. Seed-pans are cheap enough. They are perforated with holes in the bottom, so that when these are covered with crocks and some siftings of the compost used for seedling raising this will effectually prevent the drainage getting clogged.

Soil for raising Pansies from seed should consist of equal parts of loam and leaf-mould passed through a sieve with a half-inch mesh, and have added to it a sufficient quantity of coarse silver sand or clean road grit to make the compost porous when these three ingredients are thoroughly well mixed together. Fill in the soil to just below the rim of the seed-pan, making this somewhat firm by frequent rappings on the potting-bench to settle the compost evenly and satisfactorily. Proceed then to sow the seed thinly; it is a great mistake to sow thickly, as the seedlings are less easy to remove later on, and their progress must necessarily be less satisfactory in consequence. Very lightly cover the seeds with the finer particles of soil.

If placed on a hot-bed the heat of which is somewhat spent, the seedlings should, in the course of a fortnight or three weeks, be somewhat similar to those seen in Fig. 1. Although the seeds in this case were sown rather thinly, note what a large number of seedlings there are to deal with. They need to be taken in hand in good time, otherwise they become drawn and weakly, although they may be placed in a cold frame subsequently. The seedlings should be pricked off into other pans or boxes as soon as the third leaf is formed, and in this case rather more loam should be used in the compost. Fig. 2 shows a number of seedlings pricked off in a seed-pan. It is a good plan to observe a distance between the seedlings of an inch or rather more, as this will afford ample space for their development until the young plants are placed in their flowering quarters. When space is less circumscribed and seed-pans or boxes are plentiful, I should be disposed to allow more space between the seedling plants. The pans or boxes should be returned to the cold frame after they are filled with seedlings, the frame being kept fairly close for a day or so, and shaded from bright sunshine should this be experienced.

2.—SOME OF THE SEEDLINGS PRICKED OFF ABOUT 1 INCH APART.

Later on the frame-lights should be removed, gradually at first, and the plants inured to quite hardy conditions.

In a little while the seedlings will develop into sturdy little tufted plants, when they can be planted in prepared quarters outdoors. The ground should have been previously deeply dug and heavily manured, and the surface left in a rough condition for a time. Previous to planting the ground should be broken up and raked over, and the hardened plants set about 6 inches or rather more apart, as represented in Fig. 3. Plants such as these give a sure indication of promise, as a reference to the illustration clearly reveals. Plant firmly and water in immediately subsequent to the completion of the planting. Seedling Pansies or Violas treated as described

n these notes should make a blaze of colour n the late autumn and succeeding spring. Fig. 4 portrays the beautiful character of the display resulting from plants accorded the treatment I have mentioned. D. B. C.

BROMPTON STOCKS AND THEIR CULTURE.

ALL who appreciate the old-fashioned, sweet-scented flowers will regret that the Brompton

3.—SEEDLINGS PLANTED IN THEIR FLOWERING QUARTERS OUTDOORS.

Stocks are not grown nearly so extensively as they were some years ago, and it is rarely that one meets with really good specimens outside those old country cottage gardens where fragrant beauties of a bygone age are treasured and appreciated. It is the owners or occupants of such cottages, too, who can give us useful hints in the culture of the Brompton Stocks.

The method usually adopted by these growers is simplicity itself. At the end of June or early in July seeds are sown, usually in a narrow border alongside the walls of the house and in a sunny position, the seedlings being well thinned when they are large enough and some of the best transplanted to other situations. In these quarters the plants remain for the rest of their lives, and the early summer following that in which the seeds were sown brings forth an abundance of fragrant and welcome blossoms. The above is undoubtedly a rough-and-ready method, but it usually answers well, and this is, after all, the real test of any cultural system.

There are, however, many amateurs whose gardens are not favourably situated for growing Brompton Stocks in this way, or the soil may be of a heavy, wet, retentive character. Under such conditions it would, of course, be useless to rely on the above-named simple course. In such cases a cold frame is a most valuable aid, and, given this, there is no reason why everyone should not grow some of these plants. Pans well drained are the best for sowing the seeds in, filling them nearly to their rims with finely sifted soil composed of loam three parts, leaf-soil one part, and sharp sand and finely crushed old mortar half a part each. The seed must be sown very thinly and evenly and covered with a quarter of an inch of fine, sandy soil. After careful watering stand the pans in the cold frame and cover each with a piece of glass until germination has been effected.

Free ventilation must be afforded, and when about 2 inches high the plants may be either potted singly into 2-inch pots or planted out in a prepared bed in the open, adopting the latter course in all except the coldest and wettest gardens. A suitable bed can be prepared in harsh soil by adding burnt earth, old potting soil, old mortar rubbish and a good amount of road sand, well mixing the whole together and working it thoroughly into the natural soil. About 9 inches apart is a good distance to plant and the soil must be made very firm, slow, hard growth being desirable. In the case of plants in pots, use similar soil to that advised for seed-sowing and pot firmly. The plants in pots will remain in the cold frame all the winter until planted out in their flowering quarters early in March. They will probably need pots 5 inches in diameter about the end of August or early in September, but this will depend on the progress made; quick, sappy growth must be strictly avoided. H.

THE TOWN GARDEN.

MULCHING.—The value of a good mulch in hot weather cannot very well be over-estimated. It does good in several ways, saves many plants from being absolute failures, increases the crops of others and is economical, in that much valuable time and labour are saved. Now, we will just consider how mulches may be best applied and the various kinds of material that may be used in this way. Of course, people dwelling in towns are not always able to command an unlimited supply of half-rotted manure, which forms such a fine mulch for many kinds of plants growing in poor soils; but some are, and in such instances the manure ought to be used, mixing with it in equal proportion some good fibrous loam reduced to a rather fine condition. A mulch of this kind is very beneficial to plants growing in pots and tubs where the rooting medium for the plants is strictly limited. Wakeley's Hop Manure is excellent for the purpose. Then, no doubt, many amateurs have heaps of old potting soils and similar composts lying about, and these also may be put on as a mulch; especially does this prove beneficial when neatly placed on the surface of the borders among the bedding plants directly after a shower of rain. Cocoanut fibre refuse is not expensive, and can be purchased from horticultural sundriesmen. It forms a very suitable mulch or top-dressing for putting on flower-beds in the front garden where a strictly neat appearance must be maintained. A dressing about 1 inch deep will be sufficient to keep the roots cool and so promote growths in the plants. For the rows of Peas, Beans and similar crops growing in the vegetable garden manure mulches are the best; but for this purpose all lawn mowings and sweepings from the garden paths must be employed and not put away in the dustbins.

PLANTS IN VASES.—For a short time after such plants as Zonal Pelargoniums, Ivy-leaved varieties, Petunias and Marguerite Daisies are put out, the leaves will, in many cases where the position is an exposed one, turn rather yellow in colour and some of the most forward of the flowers become seared in appearance. Now, very careful watering is absolutely necessary. If the plants in the boxes and vases are watered as carefully as when they were growing in the pots prior to being put out, a free, clean growth will soon result. Central plants must be duly staked and all faded flowers and badly damaged leaves removed forthwith.

SWEET PEAS.—I do not remember having seen before so many green aphides on these plants as I have this year. The main branches have not been infested as much as the side shoots, and the latter have in many instances been quite hidden with the insects. Of course, the hot and dry spell of weather in May has been most favourable for the spread of the pests. The recent rains have washed the plants comparatively clean; but they have received a serious check, and no time must be lost in inducing a more vigorous growth. Two ounces of superphosphate per yard run of row must be applied at once and duly watered in. If the soil is dry, water with clear water before applying the superphosphate, and take very great care not to touch the plants with the latter. One week after applying the above stimulant give 2oz. of nitrate of soda to 2 yards run of row. Dissolve 2oz. of phosphate of potash in 3 gallons of water and apply the liquid the week following the dressing of nitrate of soda. The nitrate may be applied in liquid form, too, 1oz. to 2 gallons of water being a suitable quantity to use. Pour the liquid on quite 4 inches away from the base of the haulm. If any of these manures are so applied that they come into direct contact with the haulm and roots, the plants will be more damaged than benefited. During the months of July and August the Sweet Peas will form a very attractive feature in the town garden, besides being so very useful for the supply of cut blooms.

FLOWERING SHRUBS.—As flowering shrubs, such as those of Rhododendrons and Azaleas, lose their blossoms, all seed-pods ought to be picked off, as the removal of the latter gives a tidy appearance to the bushes and encourages a free growth of young wood. While engaged in taking off the seed-vessels, every care must be exercised so that the young shoots do not get pulled off at the same time. AVON.

4.—A BED OF SEEDLING PANSIES FROM SEEDS SOWN LAST SUMMER.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

HOLLYHOCKS.—To obtain strong, healthy plants for flowering next year a sowing of seed may now be made on a south border in drills 1 foot apart and about 2 inches deep. Let the bed be well prepared and made moderately firm defore drawing the drills. Scatter the seed thinly and evenly and cover up with rather finely sifted soil. To hasten germination in hot, dry weather and to preserve moisture, lay a few mats over the beds, and remove them as soon as the young seedlings appear through the soil. Sow also Wallflowers and Forget-me-nots for flowering next spring.

Primroses.—To establish a good stock of these it will be necessary to sow the seed at once either in well-prepared beds or in shallow boxes. If in the latter, let the boxes be well drained and filled to within an inch of the top with good soil pressed rather firm. Cover the seed lightly and stand the boxes in cold frames kept close and shaded in bright weather. If frames are not available, place squares of glass over the boxes until the seedlings appear. If pricked out on a suitable border at a later date, a good stock of plants may soon be reared.

Aquilegias.—These may be raised in the open, the seed germinating freely if good, and from these some exceptionally useful plants can be raised for flowering next year.

HARDY FRUITS.

Strawberries.—Keep the beds free from weeds and remove runners, excepting where stock plants are wanted. See that the fruits are well provided with clean straw or some other sweet material to rest upon, and employ nets early as a protection against birds. Plants growing on a warm border, if large fruits are wanted, will benefit greatly from a few applications of manure water, and in some cases the trusses may be thinned with advantage.

Raspberries.—See that the roots of all permanent fruiting canes are well mulched with decayed manure, excepting where the soil is very heavy and the growth inclines to coarseness. Pull up useless suckers, leaving only those which will be wanted for the following year's crop. In cases where it is intended to increase the stock, the young green shoots may be planted in nursery beds on a north border, or sufficient may be left by the side of the old canes to be taken off and planted at a later date.

Gooseberries for Dessert.—To increase the size of the fruits feed the roots at intervals and mulch well beneath the bushes with manure, over which place a little long litter to preserve the berries from being splashed with soil. Keep the land free from weeds and net early.

VEGETABLE GARDEN.

Keep the hoe freely going among all growing crops, both for the destruction of weeds and to assist growth. Thin out all plants that are growing too thickly. Onions, Carrots, Parsnips and Beet should be allowed ample room if fine roots are required. Sow more Early Nantes Carrots for drawing young, or some other approved variety, and get out as fast as possible all winter vegetables and sow a bed of Coleworts. These will be exceedingly valuable for filling up spare plots, and be of great service where a large demand for vegetables arises daily.

Asparagus.—Weed the beds now that cutting has ceased and sprinkle with salt. In dry weather a few applications of liquid manure will prove valuable.

H. MARKHAM.
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Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

HARDY FRUITS.

STRAWBERRIES.—Though somewhat later than usual, the recent rainfall and warmer weather have greatly assisted the fruit, and protection from birds is now necessary. In private gardens this is generally done by means of herring-netting, which, if possible, should be suspended upon a light framework, or stakes at intervals and cord or wire connexions answer very well. If the plantation is surrounded by wire-netting 2 feet or more in depth, to which the string-netting may be secured, its effectiveness is greatly enhanced.

Pears and Apples appear to have set well, and thinning of the fruit should be carried out as soon as the best placed and most shapely can be discerned.

Insect Pests may now be expected to become numerous, and timely measures for their destruction should be undertaken. Red spider is the most frequent of any, particularly so upon trees against walls—Apples, Pears and Plums. Any one of the advertised insecticides applied according to the printed directions issued with each package may be relied upon to effect a cure; or, failing in this, such home productions as soap and water or weak solutions of paraffin emulsion applied to the foliage with the syringe in the after-part of the day will check the ravages if not completely exterminate the foes.

Cherries of the dessert type are very subject to attacks of black fly or aphis, and in some seasons more than others. If not checked in good time, the exudation from this insect may render the crop worthless, and, as strong measures are required, the necessary cleansing should be carried out before the fruit commences to ripen. The points of the shoots, which usually are the harbouring places of the insect, may first of all be removed, as well as any curled leaves, after which every part of the tree may be moistened with some approved wash, to be followed a few hours afterwards with a douche of clean water forcibly applied through the garden engine.

INDOOR FRUIT DEPARTMENT.

Grapes.—The final thinning of all late varieties must shortly take place. It is advisable to do this more severely than with the early and midseason sorts, and also to clear most of the berries from within the bunches, as owing to the length of time these are kept after attaining maturity the risk of decay and difficulty of removal warrant this course. Large bunches may require the shoulders to be slightly raised by passing a strip of matting around the stem and securing it to the wires above.

Figs.—Figs upon early started pot trees will now be ripe, and more air must be admitted to the house to prevent the fruits cracking. When all are gathered, the trees may have rough growths pruned away and others of the current season tied in their places. If a second crop is anticipated, the trees must be kept under cover; but as planted-out stock will in most cases give sufficient succession, pot trees may be encouraged by liberal treatment to make fresh growth by being plunged in a warm, sheltered situation and well watered and syringed.

Melons.—As the earliest crops are cleared the house may be cleaned, some fresh soil added to the beds and young plants be again inserted. Continue to fertilise blooms upon successional crops whenever six or eight can be obtained at about one stage. Close the house early in the afternoon, more especially if fire-heat is now dispensed with. The latter course may answer well in dry, warm weather; but if the reverse of this, fires should again be started, or canker and other evils are almost certain to prevail.

JAMES DAY.
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ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Pæonies not flowering (*M. Ball*).—The plants are evidently in a weak condition, and the only hope of recovering their vigour is in lifting and dividing in August next and replanting them in good and very rich, deep soil. The plants must be divided very freely, as it will not do the least good to replant them in large clumps. For flowering each year these Pæonies are dependent on the good growth of a previous season, and it will probably take a year or two before the plants fully regain their strength. We may possibly publish an article dealing with the plants later on, which might be of service to you.

Mignon Dahlias (*G. T.*).—Unless the term "Mignon" has been used by the French as applied to a section of Dahlias, we are not aware that the term has been used by British growers. We have a section called Pompon Dahlias; that term, probably, comprises the other you mention. But Pompon Dahlias, also sometimes termed Bouquet Dahlias, are abundant, and can be had from any Dahlia florist. The section has very double flowers like those of the large show Dahlias, but they are very small. They are borne on stiff, erect stems, and are produced in great abundance. They are the best for garden decoration and also to supply flowers for cutting. Any florist in Leeds should be able to supply you.

Carnation layer not rooting well (*C. J. H.*).—The Carnations sent appear to be badly attacked with that troublesome pest, the eelworm, which is difficult—indeed, almost impossible—to get rid of. The only reliable thing is to burn all the plants, obtain a fresh stock and plant them as far as possible from any ground previously occupied by Carnations. The conditions stated by you are all unfavourable for the development of Carnations and decidedly favourable to the many pests with which they are troubled. It should be borne in mind that though the protection of a cold frame may be of great advantage to Carnations during the winter, yet they should have plenty of air whenever possible throughout that period.

Carnations (*S. K. T.*).—There is no Carnation show held in your district that we know of, though there are many flower shows in the districts near and around—for instance, the Hospital Floral Fête at Kingston, on July 7; Teddington Flower Show, July 15; while Esher, Twickenham and other places have their summer show, and Carnations are, or may be, displayed at any of these. If when the layers are removed there remain a sufficient number of shoots on the old Carnation plants to make it worth while to retain them, by all means do so; but with all available grass used in the layering process there would be nothing worth saving. In the case of new or choice varieties, any small pieces that remain may be utilised as cuttings, pulling the shoots off the old stem with a heel attached and inserting them in sandy soil in a cold frame. Such cuttings as these will form roots during the winter.

Pæony seedlings (*N. H.*).—We do not quite see how you have become possessed of the seedlings. You say you had three plants, but only one came up, and this has produced but one flower, which you picked to prevent its running to seed; hence we conclude that what you regard as "seedlings" are the root pieces of those you imagined were dead, and which, as is by no means uncommon among these flowers, are springing into life. If this be so, there is no reason why the plants may not make flowering examples in time with proper care and treatment. But what of the original plant that did flower? If this has declined in vigour instead of becoming established, there is either neglect or a wrong method of treatment, of which we have no information. These Pæonies require very generous treatment, deeply cultivated and well-enriched soils, and where such exist the plants do not object to rather heavy soils. Above all, it is important that the planting or replanting should be done in the early autumn, September being the best month for the purpose. If you attend to these particulars and add grit or sand to your soil, you may still make of failure a brilliant success.

Pond weed (*Panto*).—We should imagine the use of the sulphate of copper safe enough so far as the river is concerned and at the distance you describe; but in the pond itself or in its immediate vicinity there may be danger lurking. At the same time, seeing that the sulphate would, in a large degree, be precipitated to the bottom of the pond, the escaping portion would not be great and the injurious effects small. At the same time, it would be better to observe caution in the matter and experiment in a small way before treating the whole of the water of the pond.

TREES AND SHRUBS.

Pruning Standard Lilacs (*C. P. Cobham*).—As soon as the flowers fade on your Lilacs, remove them down to the first strong young shoots. Should the plants contain a lot of weak branches, remove the inside ones so that the main branches may obtain the maximum amount of light and air. In the event of a great many young shoots being formed, remove a few here and there from each branch, so that all the strength may be kept for those shoots that are really required. If your plants are moderately vigorous, do not over-thin them. Keep a sharp look-out for suckers, and remove them as they appear. A surface-dressing of rotten farmyard manure will do good.

Box dying (*Boothio*). — A puzzling question, the only answer to which we can suggest is that the trouble with the Box is caused by the cold weather in winter. For this no remedy can be advised.

Flowers of the Siberian Crab for inspection (*Buxton Shillitoe*). — The semi-double flowers of your Siberian Crab are very pretty. Abnormal flowers such as you send are occasionally produced by this and other species of Crab. It is just possible that you may be able to perpetuate the sport by taking buds from the branches producing the semi-double flowers and budding them on ordinary Apple stocks.

ROSE GARDEN.

Pruning Mme. Abel Chatenay after flowering (*K. E. J.*). — The fine, strong growth you allude to may be shortened a little as soon as the blooms are over. Cut it back to the first plump-looking bud. We presume you wish the plant to climb upon the wall of the greenhouse. Should you desire to keep it dwarf, you may cut back to about 2 feet from the base or bend the growth horizontally, when it will throw out blooms from each eye. Gottfried Keller is quite hardy. For its exquisitely coloured buds and perpetual flowering quality this Rose is highly esteemed by all lovers of single Roses. Perhaps your soil is too shallow for the Hybrid Teas. In order that they may thrive well the roots should have ample depth of soil. We think the absence of this is more the cause of their failure to grow than the windswept position of your garden. Could you not put up a wind screen, such as some wattled hurdles? This could be covered with wichuraiana Roses, which you say thrive so well, and your Hybrid Teas would have a partial shelter. We agree with you as to the beauty of Azalea rustica flore-pleno; they are double-flowered hybrids of Azalea mollis. Many of the charming deciduous flowering shrubs are not grown nearly so much as they deserve to be.

Rose foliage damaged by insects (*R. D.*).—The little green caterpillar that causes the damage to the foliage is the larvæ of one of the sawflies, and known as the Rose slugworm. It devours the upper epidermis and tissues of the foliage, and leaves undamaged the lower skin. The leaves become blotched, then white, then brown and shrivel up. It can be killed by spraying the bushes with Hellebore wash made up as follows: 1oz. of fresh ground Hellebore, 2oz. of flour, three gallons of water. The Hellebore and flour are mixed together, then mixed with the water. Keep it well stirred, and distribute with a fine sprayer. The little white insect is thrip, and its appearance usually follows a spell of dry weather. The above-named wash will exterminate this pest also if well persevered with. It will be best to spray in the evening.

Pillar Roses with large and full flowers (*Lindsay Allardice*).—It is not an easy matter to recommend a free-flowering Rose having large and full blooms, borne on single stems and not in clusters. Even Roses such as Mme. Hector Leuilliot are produced in large clusters at times, but, of course, this can be remedied by disbudding. Eight good varieties would be Climbing Caroline Testout, Conrad F. Meyer, Ulrich Brunner, Hugh Dickson, Mme. Isaac Pereire, Margaret Dickson, Le Soleil and Mme. Berard. The Roses you name are fairly free flowering, but we think the above-named eight would give you most satisfaction.

Rose for naming (*G. Brittan Gill*).—The name of the Rose bloom sent is Cheshunt Hybrid. It is a fine red Rose, especially suitable for an unheated greenhouse. Under glass one does not obtain the rather dull colour which the blooms assume outdoors. It belongs to the Hybrid Tea section. We should advise you to go over the plant and cut back the growths that have bloomed to the first plump eye or bud below where the bloom was. If there are old, worn-out growths, these can be removed now right down to the base of the plant. Spread out all remaining growths as much as practicable to give the maximum amount of light, and keep the plant well syringed each morning and afternoon, except when the weather is dull and showery. The border should be soaked at once with liquid manure of good strength or dressed with some good fertiliser and well watered in. When the second crop of bloom-buds is seen, plenty of air should be given to strengthen them, and towards autumn let the plant have abundance of air night and day and keep the soil on the dry side. This will ripen the wood, which is so essential for a good blooming next spring.

THE GREENHOUSE.

What are Rex Begonias? &c. (*A. S., Cape Colony*).—Correctly speaking, there is no difference between Rex Begonias and fibrous-rooted ones, as all those of the Rex section have fibrous roots. Furthermore, the different classes of Begonias cross and intercross with each other, so that no hard-and-fast line can be drawn between the sections. Begonia Rex and its numerous varieties are characterised by stout creeping rhizomes and finely marked foliage, more or less hairy. There need be no difficulty with this class, but the case is different where these have been crossed with some of the other forms. Of those concerning which you enquire, the first may be Begonia nitida; the second and smaller one, with some of the leaves spotted, is, doubtless, Begonia Dregei; while we think the third is Begonia semperflorens. This is represented by many different varieties, some of which are very dwarf. These dwarf varieties of B. semperflorens are largely used for bedding, and in some of them the leaves, when exposed to the summer's sun, acquire a brilliant red colour. Tuberous Begonias, too, in this country are bedded out in very large numbers. In drawing up a schedule of prizes for Begonias, you might thus classify them: 1, Begonias grown for their handsome foliage; 2, Begonias (excluding tuberous-rooted varieties) grown for the sake of their flowers; 3, Begonias, tuberous-rooted varieties. In this country prizes are, during the autumn and winter months, frequently offered for that popular variety Gloire de Lorraine, and should you intend to do the same, Section 2 must read: Excluding tuberous-rooted varieties and Gloire de Lorraine. This would mean the formation of Section 4 to read thus: 4, For specimens of Begonia Gloire de Lorraine. In this country the prizes are usually offered for six plants of this last-named.

Treatment of Malmaison Carnations (*Thanks*).—In the case of the Carnations with a number of weak grassy shoots, you may thin them out severely in order to throw more strength into the buds, which should then increase in size. As you need only one or two layers and wish to retain the old plants, you could, in all probability, build up a little mound of fibrous loam and sand on the top of the pot and layer the shoot therein. In doing this you should not select a shoot whose removal will destroy the symmetrical character of the old plant. Loam, as generally understood by gardeners, is the top spit from a pasture field. For potting purposes it needs to be stacked at least a year before using in order to kill the roots of the grass. Loams vary greatly in character and in colour. What is termed yellow loam is in great demand for plants in pots. This is, in most cases, of a rather heavy nature, and for many plants needs to be lightened by an admixture of leaf-mould, peat and sand. Loam from the neighbourhood of Reigate in Surrey is largely used around London.

How to grow Geraniums (*Miss E. H.*).—For the successful culture of Geraniums a free circulation of air is necessary, and it is probable that your conservatory is kept too close. This is borne out by the high day temperature stated by you. No hard-and-fast line can be laid down as to how often they should be watered, as so much depends upon the size of the pots, condition of the roots, situation the plants occupy, the weather and other particulars. It may be that twice a week will be ample, while, on the other hand, they may require water daily. The soil should always be kept, as far as possible, in a fairly moist condition; certainly the leaves must not be allowed to droop before water is given. When the pots are well furnished with roots, a dose of weak liquid manure about once a fortnight will be beneficial. The best time to water Geraniums during the summer months is in the evening, but in the winter the morning should be preferred for the purpose. At that season it is a great advantage for superabundant moisture to dry up before night, whereas in hot weather the plants absorb moisture more readily during the night-time.

Carnation leaves diseased (*J. R.*).—Many of the Carnation leaves you sent were attacked by what is commonly termed spot, a fungoid disease, and besides this they appear to have been very badly treated. As you, however, give us no details of culture, we are decidedly handicapped in giving our advice. Spot is, as a rule, most troublesome when the plants are subjected to cold and damp. Light and air will do a good deal to keep it at bay, but once the plants are attacked it is difficult to eradicate. The most effectual plan is to remove the diseased leaves, burn them and dust the plants lightly with black sulphur. Judging by the condition of the leaves sent, we advise you to burn your plants and start with some clean ones.

FRUIT GARDEN.

To prevent an attack of mildew on Vines (*C. E. B., Kent*).—The wise precaution you have taken in ventilating your vinery in opening only those ventilators which are opposite to the wind has, so far, no doubt helped to secure your Vines immunity from attack. By continuing to do this for a couple of months longer we hope you may succeed in averting an attack altogether, as the most dangerous time for its visitation will then be past. Fluctuations in the weather from sudden heat to sudden cold, and *vice versâ*, are frequent causes of mildew. We would advise you to keep a sharp look-out for its appearance, and if discovered to immediately apply flowers of sulphur to the parts affected, whether the foliage or the bunches. In

this way the fungus may be killed before it has time to spread and the damage be very much minimised; whereas, if this precaution is not taken it will most likely quickly spread over the whole vinery, and that in a very short space of time. Vines once affected with mildew are more liable to attack than are those which have been free.

Gooseberry bushes unsatisfactory (*T. Milnes Favell*).—The bushes are attacked by red spider, and should be sprayed (unless the fruit is to be picked immediately) with 1oz. of potassium sulphide dissolved in two gallons of water.

Diseased Fig leaves (*J. Romanes*).—The cause of the brown spotting of the leaves of the Fig is obscure, but it appears probable that it is due to a bacillus, which also attacks the stem. If all the diseased portions of the branches are cut out during the resting period and precautions are taken to disinfect the knife after making a cut, the disease may be overcome. It is probable that insects carry the disease germs from one place to another.

Apple shoots diseased (*G. F. K.*).—The Apple shoots are attacked by the Apple mildew (Sphærotheca mali), a fungus that is perennial in the tissues of the shoots. The pieces attacked should be pruned off as soon as possible and burned at once. To stop the spread of the attack it would be well to spray the tree with a solution of potassium sulphide, at the rate of 1oz. to three gallons of water. The shoots should be cut off about half an inch below the point attacked.

Injury to old Gooseberry and Currant bushes (*Mrs. Marshall*).—This kind of injury is not uncommon in old Gooseberry and Currant bushes. The worst bushes should be taken up and the roots examined; if they are sound the injury is probably caused by deficiency of lime in the soil. Dress the ground with three bags of soot mixed with an equal amount of lime, and repeat in three weeks' time; this will most likely effect a cure.—G. S. S.

Pear leaves blistered (*A. L. P.*).—The little blisters on the Pear leaves are due to the attack of the Pear-leaf blister mite. This mite attacks the leaves when very young in the bud stage. Where the attack is a bad one, the trees should be heavily sprayed in the winter with a wash made by mixing 3lb. of lime and 1lb. of caustic soda together and slaking with hot water in which 3lb. of flowers of sulphur have been mixed; stir and add 3lb. of salt, allowing the mixture to boil for some time, then make up to ten gallons with water.

Peach-leaf blister (*Mrs. C.*).—The Peach leaves sent show them to be badly attacked by what is known as curl or blister. It is a common product of cold following on warmth, the low temperatures evidently bursting the leaf cells and thus causing the curl or swellings seen. It is also attributed to a fungus, which, if a certain solution be sprayed over the trees before the foliage opens, checks the curl. It is, however, noticeable that blister or curl never appears on Peach or Nectarine trees that are grown under glass. But it is most probable that a fungus attacks the leaves after the curl is formed, because such diseases as a rule follow quickly when vegetation is at all injured. Pick off all injured leaves and burn them; others that are uninjured will soon come. It is very likely, if you could fix projecting wind-breaks in front of your Peach wall at intervals, the curl would show but little. As to your Indiarubber Plant, the leaves are very small and seem to have been injured by some noxious gas or in some way scorched. It is a case for purely local enquiry to find a remedy.

MISCELLANEOUS.

Names of plants.—*The Hon. C. L. B., Bristol.*—1, Geum rivale; 2, Polemonium cæruleum; 3, Thalictrum minus; 4, Euphorbia Cyparissias; 5, Anthericum Liliago; 6, Viburnum Lantana; 7, Pulmonaria officinalis.——*P. Z.*—Your Roses are: 1, Sulphurea; 2, Belle Lyonnaise; 3, Marchioness of Londonderry; 4, Gloire Lyonnaise.——*H. P. K.*—1, Diervilla florida; 2, Aristolochia Sipho; 3, Asphodeline liburnica.——*Arthur Shillitoe.*—1, Geranium albiflorum; 2, G. sylvaticum; 3, Aconitum Lycoctonum septentrionale.——*W. Green, Battersea.*—The Dawson Rose.——*L. S. Owen.*—Your Rose is Conrad F. Meyer.——*Rhagatt.*—Rosa centifolia (Cabbage Rose).——*W. Dawson.*—1, Buxus sempervirens; 2, Taxus baccata; 3, Cedrus atlantica; 4, Thuya orientalis; 5, Cupressus lawsoniana variety; 6, Abies nordmanniana; 7, Cedrus Deodara; 8, Cupressus pisifera plumosa; 9, C. lawsoniana; 10, Tsuga canadensis; 11, Juniperus chinensis; 12, Pernettya mucronata.——*M. L. M. T.*—Iris tectorum.——*Mrs. Renshaw.*—Sisyrinchium angustifolium; Iris graminea.——*J. M. S.*—1, Dictamnus albus purpureus; 2, Anthericum Liliago; 3, Armeria juncea; 4, possibly Ailantus glandulosa. Better specimen needed.——*T. W. P.*—1, Saxifraga tricuspidata; 2, Kerria japonica; 3, Centranthus ruber; 4, Phlox subulata atropurpurea; 5, Begonia weltoniensis.——*C. H. D.*—Paradisia Liliastrum (white); Chelidonium majus (Celandine).——*F. H.*—Cannot name from leaf only.——*Upwey.*—Ligustrum lucidum tricolor.——*A. C. K.*—1, Pteris serrulata; 2, Pellæa rotundifolia variety; 3, Scolopendrium vulgare; 4, S. v. crispum; 5, Pteris cretica variety; 6, Nephrodium hirtipes; 7, Ophiopogon japonicum variegatum; 8, Myrtus communis tarentina; 9, Coleonema alba; 10, Daphniphyllum macropodum.—— *S.* — Vaccinium corymbosum.

SOCIETIES.

YORK FLORAL FETE.

THE fifty-first annual floral fête was held in Bootham Park, York, on the 17th and 18th inst., and proved a great success. Non-competitive or trade exhibits were very good indeed; so, too, was fruit and vegetables in the competitive section. Many of the plant groups in this latter section, though composed of excellent material, were much too crowded, the beauty of the plants being thereby spoiled. The mixing up of the entries for one class among those for another is a feature that is allowed at this show, and consequently it is well-nigh impossible for visitors to trace all the entries in a class, this being particularly bad in the specimen plant section. We feel sure the committee would do well to try and avoid this in future. We desire to tender our thanks to Mr. Fred Arey for assistance given, and also to the member of the committee who kindly brought round copies of the official programme for representatives of the Press.

COMPETITIVE CLASSES.—PLANTS IN POTS.

For a group of miscellaneous plants in or out of bloom, and occupying a space not exceeding 300 square feet, the first prize was won by J. Pickersgill, Esq., Bowdon Hill, Weetwood, Leeds (gardener, Mr. J. Donoghue). This was a beautiful group of splendidly arranged high quality plants; Crotons, Dracænas, Caladiums, Roses, Lilies and tall Palms were a few of the subjects included. Second honours fell to Mr. W. A. Holmes, West End Nurseries, Chesterfield, whose group was also of very high order, the plants used being of excellent quality throughout. The third, fourth and fifth prizes were won respectively by Mr. James Blacker, Thorpe Villas, Selby (gardener, Mr. Walton Curtis); Messrs. R. Simpson and Son, Selby; and Mr. G. Cottam, Alma Gardens, Cottingham, Hull.

For a similar but smaller group, the first prize was again won by J. Pickersgill, Esq., whose group was a really fine combination of colours, the Crotons being particularly good. Mr. W. A. Holmes was a very close second, the Crotons here being also very highly coloured. Third and fourth prizes went to Mr. William Vause, Leamington Spa, and Messrs. R. Simpson and Sons respectively.

Class 3 was for a group of hardy herbaceous and perennial plants and flowers, with background of decorative plants, Bamboos, &c., with pool of water, Nymphæas, water plants, &c., arranged for natural effect, cut flowers allowed; to occupy a space not exceeding 30 feet by 10 feet. First honours were well won here by Messrs. J. Backhouse and Sons of York. This exhibit was of very high quality indeed, and took the form of a steep rocky bank with a cascade of water falling from the rocks at one end and supplying an irregular rock-strewn pool below. From the fissures of the rocks and surmounting some of the largest were the choicest of rock plants, the whole forming an exhibit of the highest possible merit. Second honours went to Messrs. W. Artindale and Sons, Sheffield, whose exhibit was arranged on somewhat similar lines to the foregoing, a rustic wooden bridge spanning the pool being a novel feature. The plants used were of excellent quality. Third prize went to Mr. S. Pickering, Clifton, York, and fourth to Mr. J. Wood, Boston Spa, York.

In the class for nine stove or greenhouse plants in bloom, distinct varieties, the first prize went to Messrs. J. Cypher and Son of Cheltenham for magnificent specimens of Statice intermedia, Pimelia sioasmæfolia, Ericas and Pelargoniums. Mr. W. Vause was second.

In a similar class for six plants Messrs. Cypher and Son were again first with splendid plants, Mr. W. Vause being second.

For three plants in bloom, Messrs. Cypher once more took first honours, Mr. W. Vause being second.

Messrs. J. Cypher and Son were also first for a single plant, with a well-flowered Anthurium, Mr. W. Vause being second with a similar plant, and F. Dean, Esq., third with Stephanotis floribunda; and in the class for a single specimen greenhouse plant Messrs. Cypher were first with a splendid example of Erica ventricosa magnifica, Mr. W. Vause being second and J. R. Wedgwood third.

For a table of Orchids, Messrs. Cypher and Sons were the only exhibitors, their group being a very good one and securing first prize. Messrs. Cypher were also first for ten Orchids in bloom, distinct, Anguloa Clowesii and Cattleya Warneri being very good here. Mr. W. P. Burkinshaw was second and Mr. W. Vause third.

For six Orchids in bloom, Messrs. Cypher led, Mr. W. P. Burkinshaw and Mr. W. Vause following in the order named. In a similar class for three plants the same exhibitors won in the same order.

For six Orchids in bloom (amateurs), Mr. W. P. Burkinshaw was first, and the same exhibitor was first in the amateurs' classes for three and one plant respectively.

For a group of tuberous Begonias arranged for effect in a given space, the entries were very numerous, first honours going to Mr. T. Winn, Ratcliffe Street, Burton Stone Lane, York, for a very fine group of splendidly grown plants. Mrs. Akenhead, Acomb Park, York (gardener, Mr. R. W. Leadhill) was a good second, and third prize fell to Miss Barstow, Garron Hill, York.

For the eight best named tuberous Begonias in flower (open), Mr. T. Winn, Burton Stone Lane, York, was first, Mrs. Akenhead being second and R. T. Foster, Esq., third.

For a group of Gloxinias in bloom, arranged for effect in a given space, first prize went to Sir J. Grant Lawson, Bart., Middlethorp Lodge, York (gardener, Mr. J. Dobson), for a well-arranged group of excellent plants. J. A. Dunkerley, Esq., Beverley (gardener, Mr. G. Bush), was a good second, and Captain Walker, Mill Mount House, York (gardener, Mr. H. Clark), third.

The class for a group of Carnations in bloom was rather poorly contested. First honours went to J. Pickersgill, Esq., Bowdon Hill, Weetwood, Leeds (gardener, Mr. J. Donoghue), who staged good plants of the perpetual flowering varieties, his Malmaisons being small. Messrs. Walshaw and Sons, The Nurseries, Scarborough, and Mr. J. E. Skaife, York, were second and third respectively.

For a group of Fuchsias arranged for effect (open) there were three entries, Mr. J. W. Clarke, Skelton Street, Clifton, York, being first with splendidly grown plants. Mr. W Kettlewell, Homer Street, York, was a close second, and G. Lee, Esq., was placed third. All the plants shown in this class were good but he arrangement was much too heavy.

The class for a group of Calceolarias arranged for effect was a very popular and well-contested one, P. Stancliffe, Esq., Solberge, Northallerton (gardener, Mr. George Jarvis), being first with some splendidly grown plants, the flowers being large and of good colour. J. W. Coulthurst, Esq., Gargrave House, Gargrave, Leeds (gardener, Mr. M. Skinner), was a very good second, W. Talbot Agar, Esq., York (gardener, Mr. W. Barnes), being third.

For eight Calceolarias, S. Leetham, Esq., Elm Bar, York (gardener, Mr. G. Skill), took first honours with excellent plants, the flowers being very large and firm. The Rev. Canon Argles and Captain Walker were second and third respectively.

The hand-baskets, bouquets, &c., were very good indeed; and Pelargonium specimens, which are always a feature of this York show, were well up to the average, but lack of space forbids any detailed mention of these.

ROSES.

For seventy-two Roses, single blooms, not less than thirty-six varieties, competition was excellent, Messrs. George Mount and Sons, Limited, of Canterbury taking first prize with remarkably good flowers; Richmond, Mrs. John Laing, Kaiserin A. Victoria and Mme. Constant Soupert were a few of the best blooms. Mr. George Prince of Oxford was a close second, and among his flowers we noticed Lady Ashtown, Johanna Sebus and Anna Olivier as being particularly good. Mr. J. D. Hutchinson, Crown Square, Kirbymoorside, was placed third.

For forty-eight Roses, single blooms, not less than twenty-four varieties, Messrs. George Mount again led with very fine flowers, Liberty, Richmond and Souv. de S. A. Prince being extra good. Second honours went to Mr. J. D. Hutchinson.

In a similar class for thirty-six blooms, not less than eighteen varieties, competition was very keen indeed, Messrs. W. and J. Brown of Peterborough winning first prize in good style. Gustave Piganeau, Dr. J. C. Hall, Mrs. W. J. Grant and Lady Ashtown were a few of their best blooms. Messrs. George Mount and Sons, Mr. E. J. Hicks (Twyford) and Mr. M. Dimsdale (Cambridge) followed in the order given.

For twenty-four single blooms of Roses, distinct, Messrs. George Mount and Sons once more appropriated the premier award with excellent flowers, the second and third prizes being allocated to Mr. E. J. Hicks and Mr. M. Dimsdale respectively.

In a similar class for eighteen varieties, Mr. E. J. Hicks was the champion, and among his flowers we specially noticed Mme. Jules Gravereaux, Mme. Constant Soupert, Mme. Hoste and La France. Messrs. George Mount and Sons were placed second and Messrs. W. and J. Brown third.

For twelve white and yellow Roses, not less than six varieties, Messrs. George Mount and Sons were first, Mr. E. J. Hicks being second and Mr. George Prince third.

The class for eighteen distinct varieties of Roses, single blooms (amateurs), was well contested, Mr. H. W. Richards, Ryde, Isle of Wight, being the champion with a very clean lot of flowers; Mr. William Hutchinson was second; Mr. G. W. Reader, Naburn Ferry, York, third; and Mr. R Park, Bedale, fourth.

In a similar class for twelve distinct varieties, Mr. W. Hutchinson was first, Mr. R. E. West, Reigate, Mr. R. Park and Mrs. R. Dobson following in the order named.

In the class for a group of Roses in pots arranged for effect, Mr. William Todd, 19, Vyner Street, York, was a good first with a well-arranged group of good plants, Mr. J. E. Skaife, Clarence Street, York, and Mr. W. Langstaffe, Sydney Street, York, following in the order named.

FRUIT AND VEGETABLES.

The class for a decorated table of fruit, to consist of a stipulated number of kinds of fruit, and the flowers to be arranged by the exhibitor, is always a good one. His Grace the Duke of Portland, Welbeck Abbey (gardener, Mr. J. Gibson), was placed first, obtaining 113 points out of a possible 136. The exhibit was a very beautiful one indeed; Grapes Muscat of Alexandria and Black Hamburgh, Apple Lady Sudeley, Nectarine Lord Napier, Peach Bellegarde, Cherries and Melons were all shown in grand condition, Roses, Lygodium and Gypsophila being used for artistic effect. Second honours fell to the Marquess of Northampton, Castle Ashby, Northampton (gardener, Mr. A. R. Searle), who obtained 97½ points, Grapes, Figs, Peaches and Strawberries being shown in good condition, and Odontoglossums were chiefly used for decoration. The Earl of Harrington, Elvaston Castle, Derby (gardener, Mr. J. H. Goodacre), was third with 97 points, thus being only half a point below the second-prize table.

For a collection of fruits, ten kinds, only two sorts of Grapes, the first-prize collection was shown by Baron de Forest, Londesborough Park (gardener, Mr. J. C. McPherson), who had excellent Grapes, Strawberries, Peaches and Nectarines, Cherries, Figs and Melons, the whole being well finished. Second prize was awarded to the Earl of Harrington (gardener, Mr. J. H. Goodacre), whose fruit, particularly the Peaches, was of excellent quality.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

BOTTLING FRUITS AND VEGETABLES.

EVERY housekeeper is always thankful to feel, when the winter is at its height, that she has a nice supply of fruits and vegetables in her store-cupboard which she can offer to her visitors, and so a few hints as to the manner of bottling, &c., may be of use to some.

Bottling Fruit in Water.—The fruit to be bottled must be perfectly fresh and sound, and should have been gathered on a fine, dry day. It should all be carefully looked over before being put in the bottles, which must be clean and dry and quite free from cracks.

Bottles.—In choosing bottles those with small necks do for small fruits, such as Gooseberries, Currants or Damsons, &c., and those with larger necks for the large fruits.

Fruits.—The bottles must be filled up with fruit as closely as possible, as a great shrinkage takes place in the cooking, which is especially the case with Currants. Plums can be pushed into the bottles with a stick, so as not to leave more spaces than possible. Having filled the bottles with fruit, they should then have pure cold water poured into them so as to fill them up to the top. There are many methods of covering them over.

Covering.—I have invariably found that bladders, which can be obtained from the butcher, are excellent. The best way to use them is to immerse them in very hot water, in order to get the bladder pliable; then tie it over the neck of the bottle with a piece of string. One bladder is generally sufficient for four bottles, but, of course, this depends upon the size of the necks and the bladder.

Corking.—Another method is to choose good corks, which should be soaked in hot water and squeezed before using, tying them over twice securely with string.

Method of Cooking.—The bottles having been securely fastened up so that no air can get to the fruit, a large copper must be got ready in which the bottles must stand evenly, but not touching each other for fear of breaking. This copper must be filled with sufficient cold water to come halfway up the necks of the bottles, and it must be gradually heated to 180°, which process occupies about three hours (for Plums 160° is sufficient, as if overdone they will break up). When the water in the copper is quite cold, the bottles may be removed and put away on their sides in a dry cupboard.

Special Warning.—In preserving fruit in this manner, judicious selection of the fruit, well cooking and well corking are the three points to be carefully attended to. If it is impossible to carry out these directions with regard to the three hours' slow heating, bring the water to the boil very gradually and then gently simmer for about ten minutes for most fruits; but Black Currants and Plums will require fifteen minutes and Apricots and Peaches twenty minutes. Of course, the length of time required for cooking must always depend a little on the ripeness of the fruit. Another way of preserving fruit in bottles is the following: Of course, the fruit needs to be good and fresh, as was the case in the preceding process, and it must be placed in bottles in the same way; but instead of filling these up with cold water, a mixture of two scruples of salicylic acid and one gallon of water, in which is 1lb. of loaf sugar, must be boiled together for five minutes and then poured boiling into the bottles, which should be tied down with bladder, similar to the recipe previously given, and put away in the store-cupboard.

Fruits in Syrup.—Peaches, Apricots and Nectarines can be preserved in syrup in the following manner: The fruit must be wiped and then thrown into a preserving-pan more than half full of boiling water. Having covered up the pan, let it stand where it will keep hot and not boil for an hour. Place the fruits in cold water; then, after skinning them and taking out the stones, weigh them and take the same weight of loaf sugar, with which you make a syrup with water; and then, after letting it boil for five minutes with the fruit and kernels in, place the fruit on a dish and pour the syrup over. For a week the syrup should be boiled daily and poured afresh over the fruit, at the end of which time it should be bottled, corked securely and left in a dry place till required. Pineapples can be preserved in this way; but they must be pared thickly enough to take out the eyes, and to every 1lb. of fruit 14oz. of loaf sugar and half a gill of water are required for the syrup. The Pines must be cut in slices, and when put into the syrup the fruit will want boiling a quarter of an hour, and the syrup must be well skimmed. The fruit and syrup should be left on a dish for two days; then, after boiling up once more, it is ready to be bottled and corked. Melons can also be preserved in this way, but they require careful handling to prevent the pieces getting pulpy. Pears and Apples are also excellent in this way; but the fruit must be peeled first, then cut in half and well cored, after which it must be weighed and a syrup made similar to that used for Peaches. After the fruit has boiled separately in water for a quarter of an hour, it can be put into the syrup—when the latter is clear—and boiled for ten minutes. On the following day it must be boiled up all together

for ten minutes and then be put into bottles and sealed down securely till wanted.

Siberian Crab Apples are often much liked and form a good dish for dessert in the winter. The fruit must be wiped well and each Apple pricked four or five times with a needle. A syrup must be made of as many pounds of sugar as there are of fruit. To every 3lb. allow the juice of three lemons and six tablespoonfuls of gin. After making a syrup of these ingredients, put in the Apples and simmer them gently till the skins are slightly cracked. The fruit must then be drained and put into bottles. The syrup should be boiled up again separately for ten minutes, and when cold be poured over the fruit, which should be corked up till needed.

TO PRESERVE VEGETABLES IN BOTTLES.

The process of preserving vegetables in bottles, which is to be explained, consists in boiling them in closed vessels in a large copper, and by this means one is able to eat several kinds of vegetables in winter having precisely the same flavour which they had at the time when they were gathered. Among the vegetables which lend themselves to preservation are Peas, Beans (Haricot and French), Asparagus, Carrots, &c.

Green Peas for bottling should be large, but, above all, very fresh, young and green. Having shelled the Peas, put them in a saucepan of boiling water and let them boil hard for five minutes; it is best to put a teaspoonful of salt in the water to keep them a good colour. Take out the Peas, and having well drained them, they should be placed in bottles, which must then be filled with cold salt water, in the proportion of 1oz. of salt to every pint of water. After the bottles have been corked and tied down they must be placed in a large copper, the bottom of which should be filled in with hay to prevent the bottles touching and breaking. Having placed the copper on the fire, it should be filled with cold water and allowed to come slowly to the boil. Having allowed the water to boil for half-an-hour, it must get cold before the bottles are removed, and then they can be placed in the store-room.

Small green Beans must be young. The process is exactly similar for them as for green Peas, except they must boil for fifty minutes in their bottles.

Haricot Beans must be tender and very fresh and young. They are preserved in the same way as green Peas, but require boiling for an hour in the bottles. French Beans also require an hour's boiling like Haricot Beans, and should be stalked before being put into the boiling salt water. Asparagus must be fresh and is done in the same way as green Peas, boiling in the bottles, like Peas, for half-an-hour.

Mixed vegetables, composed of green Beans, green Peas, Haricot Beans and small Carrots, can also be bottled in this way, and require to boil for from fifty to sixty minutes.

(MISS) MILDRED I. CLAYDEN.
Eversfield House, St. Leonards-on-Sea.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

July 6 and 7.—Royal Horticultural Society's Summer Show (by the kind permission of Mary Countess of Ilchester), in the grounds of Holland House, Kensington.

University College, Reading.—The new prospectus of the Agricultural, Dairying and Horticultural Instruction to be given at the above college is now being issued, and all who are thinking of seeking instruction on these subjects should apply to the director for a free copy of the prospectus.

Lilium giganteum.—Messrs. Barr and Sons are testing the fitness of this giant Lily as a purely aquatic plant. They have many planted in water which is from 12 inches to 15 inches in depth, and these so far are doing well. Others planted earlier close to the margin of the stream are becoming very strong, and evidently they are quite at home in such moist surroundings. Mr. W. J. Barr mentioned that he had heard that in India Lilium giganteum grows perfectly in water. In contrast with these plants were others that, the bulbs having been put into 7-inch pots to start them, were standing outdoors and had made large stems and leaves. This fact serves to show that, whether treated to moisture or otherwise, it is a very accommodating plant. Possibly there are many bulbous plants which would thrive all the better if nearer water. It is only within the past few years we have found out the appreciation many Primula species have for moisture, and there may be others equally fond of it.—A. D.

National Vegetable Society.—At the committee meeting held at the Hotel Windsor, Victoria Street, Westminster, on the 22nd ult., it was announced that His Grace the Duke of Portland had kindly consented to accept the position of president of the society. It was decided to hold trials of spring Cabbages and autumn-sown Onions, and land in Surrey and Essex has been offered for the purpose, so that it will be seen the society is quickly getting to business. Full particulars of these trials will be published in due course. We trust that all our readers who are in any way interested in vegetables will join this new and important society, and thus aid the committee in its efforts to promote a better knowledge of vegetables. The annual subscription is 5s., which may be sent either to the hon. secretary, Mr. E. G. Quick, Kelmscott, Harrow View, Wealdstone, Harrow; or to the hon. treasurer, Mr. G. Wythes, Hopefield House, Windmill Road, Brentford.

The Gardeners' Royal Benevolent Institution.—The seventieth anniversary festival dinner of the above praiseworthy Institution was held at the Hotel Metropole, Whitehall, London, on the 23rd ult., Lionel de Rothschild, Esq., in the chair, and about 200 friends were present. After the loyal toasts had been given, the chairman proposed "Continued Prosperity to the Gardeners' Royal Benevolent Institution." In doing so he referred to the admirable objects of the institution, and said he wished to specially emphasise the fact that it gave him very great pleasure to know that it encouraged thrift among those whom it was intended in after years to benefit. It was, however, necessary to appeal to the general public for funds, and he sincerely hoped that all who, like himself, loved their gardens and the flowers would do all they possibly could to assist the institution, which, in turn, helped those who had in the past made our many beautiful gardens what they are. Mr. Harry J. Veitch, V.M.H. (treasurer), in responding, said the chairman gave them great encouragement in so kindly presiding over that gathering. It was impossible to tabulate the vast amount of good work the Institution was doing, but he mentioned the fact that every ye[illegible] a total of £4,320 is spent in assisting [illegible]cessitous gardeners or widows of gardeners. During the seventy years the Institution had been in existence a total of £124,000 had been so spent. He also drew attention to the good investment it had proved to many gardeners who had in the past subscribed to the funds. As showing the gratitude of those who receive pensions or other assistance, Mr. Veitch read two most touching letters from poor aged people that threw a vivid light on the distress under which some good gardeners of the past now exist. Colonel the Right Hon. Mark Lockwood, M.P., proposed "Horticulture in all its Branches," and, as usual, made a capital and humorous speech, in which he drew attention to the firm hold the love of horticulture now had on all sections of the British public and the humanising and peace-loving effects it produced. Mr. Arthur W. Sutton, J.P., V.M.H., responded in a most able manner, and mentioned the Darwin Centenary celebrations that were then being held at Cambridge. Clever though Darwin's theory of evolution was, it did not, and could not, explain what induced such as those present to assist, as they were doing, those poorer and weaker than themselves. Mr. N. N. Sherwood, V.M.H., in a splendid though brief speech, proposed "Our Chairman," which was drunk with musical honours, as was that of the secretary, Mr. G. J. Ingram. Among the subscriptions sent in were: The Chairman, 100 guineas; Messrs. Rothschild, 100 guineas; Messrs. Hurst and Son, £100; Messrs. Sutton and Son, £100; Mr. Arthur Sutton, £10; Mr. Leonard Sutton, £10; Mr. J. Vert, £50; Baron Schröder, £50; Messrs. J. Veitch and Sons, 25 guineas; The Proprietors of *Country Life* and THE GARDEN, 10 guineas; and Mr. Harry J. Veitch, 25 guineas. Mr. Edward Sherwood also informed the committee that as a result of the recent performance of "Cyderland," kindly undertaken by him, there would be £100 to add to the funds. Among the stewards' list were the following: Mr. A. McKellar, £36 2s.; Mr. T. H. Cook, £32 7s.; Mr. A. J. Wood, £30; Mr. Crump, 20 guineas; Mr. F. Fielder, 20 guineas; Mr. Metcalfe, 20 guineas; Messrs. Dickson and Robinson, £12; Mr. Douglas, £12; and Messrs. Curry and Co., 8 guineas. Mr. G. Monro's Covent Garden table subscribed £176 5s. and Mr. Ingamell's table £60 10s., the total subscribed that evening being £2,099, £99 more than last year.

Disease among bees.—The Board of Agriculture and Fisheries desire to warn all bee-keepers that an outbreak of disease, believed to be identical with the Isle of Wight Bee Disease, has occurred in several hives in Buckinghamshire. This disease, which has destroyed almost all the bees in the island from which it takes its name, is due to a bacillus closely resembling the bacillus of plague, and no remedy for it is known. It is of the utmost importance, therefore, that bee-keepers should take every precaution to prevent the disease spreading, and they are strongly advised to keep a careful watch for any signs of its appearance. A full description of the disease was published in the Journal of the Board of Agriculture for February, 1909, and bee-keepers who find symptoms of disease corresponding to the description there given should communicate with the Board of Agriculture and Fisheries, 4, Whitehall Place, London, S.W.

A pretty flower show.—The annual exhibition of the Bedford Park Natural History and Gardening Society is always a pretty feature in this beautiful "garden city." It is to be held on Saturday next in the club grounds, and will be open from 4 p.m. to 6 p.m. There are classes for Roses, garden flowers, Ferns, pot plants and wild flowers. Mr. R. H. Read, Camelot, South Parade, is the hon. secretary. This society is one of the most useful in the suburbs of London. Excursions to famous gardens are arranged during the summer, and monthly meetings take place in the winter months, when lectures are given by famous scientists and gardeners.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Ants and Roses.—I have read with much interest "Notes from a Surrey Rose Garden," signed "P. M. A.," in THE GARDEN of the 19th ult. For the last two seasons I have had all my best Rose buds eaten away, and on examining them have found them full of ants exactly as "P. M. A." describes. I consulted every book I have or could borrow, but could find no reference to ants as Rose pests, and although I asked several experts, I was always told the same thing—that ants never ate the Rose buds, but were only attracted by the aphis. This summer, however, having carefully watched the

trees and satisfied myself that the damage was due to the ants, I set to work and tried one remedy after another. After several failures I have now entirely got rid of them, and am glad to be able to promise your correspondent that he will have no further trouble if he proceeds as follows: Add ¼lb. of quassia chips to three gallons of soft water; boil and simmer for two hours; strain off the liquid, and add ¼lb. of soft soap. Use this mixture when cold (diluted with one-third of soft water) to sponge the buds. Then, to get rid of the pests before the rain has time to wash the buds clean again, follow the instructions given in your most useful book, "Gardening Made Easy." Take several flower-pots and fill them with grass and leaves and place one on each Rose bed upside down, laying a flat crock or a bit of slate over the hole at the top. Leave these undisturbed for about ten days, and then, armed with a bucket of boiling water, go round and, carefully inserting a spade under each pot, transfer it and its contents to the water. In nine cases out of ten the pot will not only be full of ants, but of hundreds of eggs as well.—(Mrs.) A. Gorell Barnes.

—— Let "P. M. A.," who writes on page 299, try burnt wood-ash on the ground where Roses are troubled with ants. Some years ago, in some experiments on various mixtures of soil for Carnations I found pots in which wood-ash had been included were avoided by ants, while those without it were attacked. — Edmund Charrington.

—— The letter of "P. M. A." in your issue of the 19th ult. on Roses and their enemies was of much interest to me. I am glad he has brought to light the fact that the ant is an enemy to Roses. Every year, more or less, I have had the buds of the following Roses, viz., Francisca Kruger and Captain Christy (this latter a special favourite) completely eaten up by ants in exactly the same manner as described. All sorts of remedies were applied, viz., sulphur, powdered tobacco, Lysol solution, &c., but with no result. This season a similar attack was made on the Roses, and having from experience abroad observed the great liking these little harmless insects (?) have for raw meat, I placed dead sparrows on the Rose beds beside the Roses attacked, and this had the desired effect. They left the buds for the new delicacy provided, and I have had no further trouble.—J. J. K., *Surrey.*

—— Referring to "Notes from a Surrey Rose Garden" on page 299, the writer complains of the ravages of ants. Two years ago I had quite a plague of ants in my Rose garden, and I found that an application of Vaporite, used according to the instructions in Mr. Strawson's book, was followed by a remarkable disappearance of the ants, and I have not yet experienced a fresh visitation of the same magnitude, though a few are found now and then.—John J. Burton, *Inkberrow, Worcestershire.*

Meconopsis integrifolia.—I am intensely interested and gratified to learn of the unqualified success which has been attained by Mr. W. A. Milner, Totley Hall, Sheffield, in the cultivation of the above plant, and which is so abundantly evidenced by the admirable group in The Garden, page 299. No picture, to my mind, for many a year has appeared to compare with it in the fulness of its hope and promise so far as hardy plant lovers are concerned, not a few of whom have been on the border-line of despair in respect to this Poppywort and its ultimate success in British gardens. Now, however, that we have such direct evidence of success, and so far north as Sheffield, a new hope arises in those who love flowers, the picture affording a great stimulus to the renewed efforts of those who in the past have failed either wholly or in part. Of the greatest possible value and interest is the information by Mr. Milner that his noble group is the outcome of plants *raised from home-saved seeds.* This alone is of the highest importance, and furnishes hardy plant lovers with a much-needed proof that hitherto has been very sparse or entirely lacking; indeed, so far as is generally known, the little home-saved seed available has either failed to vegetate altogether or has given such indifferent results that many feared that this Meconopsis was not a plant for the lowlands of England at all. Such a fear, however, is now completely banished and enthusiasts are inspired by a new hope. The large number of seedling plants obtained by Mr. Milner would suggest something akin to free seeding in this instance, and the news is most welcome. Indebted as are the readers of The Garden to Mr. Milner for a sight of his delightful group, one cannot but feel that many of these would like to incur a further indebtedness in respect to the cultural side of the question. What would be of especial interest would be a note of the time of sowing and the early treatment of the seedlings. For myself, may I enquire if artificial pollination was resorted to, as it is not improbable that much of the home-saved seed has been of an imperfect nature. Finally, one cannot but congratulate Mr. Milner

MR. E. H. WILSON.

on his achievement, just as one welcomes so inspiring a success.—E. H. Jenkins, *Hampton Hill.*

Anemone nemorosa robinsoniana.—The favourable mention of this plant on page 266 will, I hope, cause many to add it to their collections; they will find that the beautiful translucent blue of the petals is much enhanced by the pale gold of the stamens. The habit of the same plant placed under different conditions varies so much that I am sure such an experienced plant-lover as your correspondent will not be surprised to learn that in this neighbourhood A. n. robinsoniana is of a far more rambling character than the type. Thus, three small roots planted closely in a shrub border two years ago now form a group fully a yard across, although by no means thick. I saw it a few years ago in the gardens of Mr. William Robinson, well-nigh naturalised, clustering around bushes of Roses, running under loosely paved walks, and coming up singly or in twos or threes among the stones, the expanded flowers uplifted to the sun, yet delicately poised amid their encircling foliage; indeed, the plant seemed to ramble into and flourish in any spot safe from the intrusion of the spade, but, as Mr. Arnott so justly remarks, never out of place.—J. Comber, *Nymans Gardens, Crawley, Sussex.*

Rose foliage injured.—In The Garden for June 12 I see your remarks as to Rose foliage blighted in Jamaica ("Rosarian"). I think the blight on Roses this season at home, at least in this neighbourhood, is in a more apparent state than even in Jamaica. I send you a bunch of leaves just picked from my own and neighbour's gardens. Black spot, red rust, frost, white hopper, cuckoo spit and leaf roll, also grubs and caterpillars, and aphis, &c., innumerable are rampant in spite of syringing with the well-known specifics. Strange to say, however, the Roses are in better growth and bud than I have seen them for some time, and if we can only have a few showers of warm rain instead of the cold from north and north-east, we may yet have a fine show. I should be glad to know if this visitation of evils is as bad elsewhere as it is in this neighbourhood.—A Suburban Rose-lover, *Dulwich.*

MR. E. H. WILSON.

A Tribute to a Great Collector.

It is a privilege and a pleasure to publish the photograph of one of our youngest and most intrepid plant collectors of to-day. One has heard much lately about another traveller who has done yeoman service for his country, and all honour to him; but sometimes those men who do much in the interests of horticulture and the beautifying of this land of ours are overlooked. Mr. E. H. Wilson has journeyed in the wilds of China with the object of collecting new plants. He went out first for the firm of Messrs. James Veitch and Sons, Limited, of Chelsea; and the last journey was undertaken for Professor Sargent of the Arnold Arboretum, U.S.A. Unfortunately, we have no space to enumerate the plants Mr. Wilson has brought home, but they will be seen in many of our home gardens. Mr. Wilson, although a young man, has followed in the footsteps of those collectors and travellers of the past, and has already accomplished much for British gardening. We are proud of such Englishmen.

THE KITCHEN GARDEN.

FENNEL (FINOCCHIO) AND ITS CULTURE.

[*In reply to a Correspondent.*]

RECENTLY a question was asked by a reader as to the culture of the above vegetable and its value as a salad plant. By many the name Fennel suggests a very different plant to the above variety, as it is the common garden or Sweet Fennel that is mostly grown in this country. The Finocchio, or Florence Fennel, is little known; but it is worth extended culture, as the flavour somewhat resembles Celery, but is much sweeter, and when boiled forms a delicate vegetable. In this country Fennel is not used nearly as much as it is on the Continent, and the correspondent in his note says that Fennel was used as a salad in April. Does he confuse the Sweet Fennel with the Finocchio variety? as in Italy the Sweet or well-known garden variety grown in this country is used largely as a salad.

Early in the spring the shoots or strong growths of the plants are cut or broken in short pieces and eaten in a raw state. To get strong plants in the early spring months seed must be sown in drills 18 inches apart in August or September.

The vegetable or Florence variety is quite distinct in every way, as the plant forms an

enlarged growth at the base, almost egg-shaped on the outside but flattened on the other, and varying in size from a large hen's egg to a cricket ball when well grown. It is in season in the summer and autumn, and the plant is much dwarfer than the common Fennel, rarely exceeding 2 feet in height when seeding, and the leaves are large, finely cut and a pale green. I have heard that on the Continent many use the leaf-stalk of this variety also for salad, but I have never seen it thus used.

The culture of the Florence variety is simple, and to get a long succession of this plant for use as a vegetable I have made three or four sowings during the year; doubtless two would suffice in most cases, viz., a spring and summer sowing. These would provide good material for use in the late summer and autumn, but as the plant requires a warm, well-drained soil, I would not advise sowing after August in the North or September in warmer localities. The plant will take about three months to mature under ordinary conditions, so that if a late supply is required the dates noted should be selected. At the approach of frost I have lifted the plants and placed them in a cool store. Treated thus they keep some time; or, for a time, I have covered them in their growing quarters with litter or Bracken. Seed should be sown in drills 18 inches apart, and the plants thinned in the rows to 6 inches apart. In dry weather the plants require much moisture, and I found we got much finer growth by mulching between the rows with spent manure. When the plant had bulbed freely at the base, or was about three parts grown, some fine soil was drawn round the base of each plant to blanch the portion exposed, and this needs to be done about two weeks before using. The plant is cut just under the soil and cooked as desired. It is a good plan to select the largest growths first when cutting begins. If seed is sown early in April, there will be nice heads for early July use. A June sowing will give an August supply, and an August sowing a crop in late autumn.

As regards cooking, I am unable to give the Italian modes; and, strange to relate, in France and Germany, where vegetables are made so much use of and in such variety, the Florence Fennel is not used as largely as many other vegetables. It is excellent when boiled and served as a second course or dressed vegetable with rich gravy, and I have seen it braised, also cooked and served like Celery. It is excellent when used cold as a salad. It requires about forty minutes' boiling, and should be placed in boiling water. A well-known lover of good vegetables told me that this vegetable is excellent when boiled and served on toast with melted butter, with some of the Sweet Fennel, finely cut up, used as a sauce.

G. Wythes.

A CLUSTER OF WILD VIOLETS. (*See page 325.*)

THE FRUIT GARDEN.

A GOOD EARLY PEACH AND ITS CULTURE.

THE prevailing impression that the American varieties of Peaches are bad setters may be true generally, and is most likely the cause of their not being more largely grown. One, however, which I think deserves to be cultivated wherever a very early supply is desired is Early Alexander. The flavour is excellent, colour everything to be desired—being equal to any July variety—and a good size, its only fault being that it is a clingstone; but this is a small drawback when one considers the advantages of its earliness. Grown indoors there need be no difficulty in obtaining ripe fruits the first week in May.

To commence gathering by this date we close the house the first week in January. A most important point in its cultivation is to force very gently until after stoning. Any attempt to keep up a strong heat, and especially when the outside conditions are against it, would most likely prove disastrous. In its early stages a night temperature of 40° to 45° will be ample, with a corresponding increase by day and air admitted on all favourable occasions.

Naturally, a rather anxious time is when the trees are in flower, and a few sunny days at this period are looked upon as a blessing, for nothing tends to the free distribution of the pollen so much as a bright sunny day. Even with that valuable asset it is necessary to take the precaution of going over the blooms with a rabbit's tail, this being fastened on to the end of a cane for convenience. Of course, it is necessary to have the house rather dry, and unless inclement weather makes it impossible, a little air should be admitted for a few hours.

When flowering is over, syringe freely twice a day with tepid rain-water; this will keep down any pests and supply a nice growing atmosphere when the house is closed. Should green fly have made its appearance, it may be necessary to fumigate. When the trees are swelling their fruits, a top-dressing of horse or cow manure is most beneficial. A good artificial, such as Le Fruitier, should be applied when watering in the early stages. The border must be kept uniformly moist at all times of the year. All Peach-growers are aware that dryness at the roots, especially at a critical stage, is more often the cause of bud and fruit dropping than anything else, and when resting will cause the buds to shrivel.

Duffryn Gardens, Cardiff. A. Cobb.

THE GREENHOUSE.

FLOWERING CACTI AND THEIR CULTURE.

THERE is no doubt that the gorgeous-flowered members of the Cactus family, especially those of the Phyllocacti group, have advanced considerably in popular favour during recent years. It is, however, but a return to the position they at one time held in gardens, as formerly specimen plants of the different members of the Cactus family were familiar features in many establishments.

In a copy of a gardening paper for 1839 I find mention of a specimen of Cereus speciosissimus, which was growing in the stove of Thomas Holman, Esq., at Folkestone. This plant was trained to copper wires 4 inches apart, and completely covered a trellis 25 feet by 8 feet. During the flowering period there were often from thirty to fifty of its magnificent flowers open at the same time.

Such a sight might be sought for in vain at the present day, and we are now content with comparatively small specimens, which, however, flower freely while still young. At the Temple Show this year a couple of groups of hybrid Phyllocacti were exhibited by Messrs. Veitch of Chelsea and Messrs. Cannell of Swanley respectively. These groups proved to be frequently a source of attraction, and, judging by the remarks overheard, many of the onlookers decided to take up their culture.

For this no elaborate preparations are necessary, as the amateur with but a single greenhouse can cultivate them in a perfectly satisfactory manner provided the structure is a light one and the temperature during the winter does not at any time fall much below 50°. In some country districts these flowering Cacti are favourite window plants; and well suited they are for this purpose provided the window is a light and sunny one, as if shaded, though the plants will grow freely enough, the flowers will be but few. Individually the blossoms do not last long, but good specimens will keep up a supply for some time. The different hybrid Phyllocacti now in our gardens have been obtained by the crossing and intercrossing of a few species. In order to understand their culture, one has but to consider the conditions under which these few original species exist in their native country. They are usually found in full sunshine and so situated that the soil is well drained and at times very dry. Under cultivation the hybrid Phyllocacti do not require shading except during the flowering period, as direct sunshine at that time lessens the duration of the blossoms, while at other seasons it tends to ripen the wood and thus assists in the formation of flower-buds.

Repotting, when necessary, should be carried out as soon as the flowering season is over, as there is then ample time for the plants to take possession of the new soil before winter. In carrying out this operation the pots must be quite clean and effectually drained. A very suitable soil may consist principally of loam lightened by a little leaf-mould and sand. The proportion of these last two will depend upon the consistency of the loam, but enough must be added thereto in order to keep it sufficiently open for the water to drain away. For large pots a little brick-rubble mixed with the soil is helpful. In potting, the soil must be pressed down moderately firm, but not too hard, and the plant should then be secured to a neat stick, looping up the side branches. This is necessary owing to their weight, and if not done at once the plant is apt to sway about and thus greatly retard the production of new roots. In the case of large specimens annual repotting is by no means necessary, in which case the plants are greatly assisted by an occasional dose of weak liquid manure and soot-water mixed

uring the summer months. As previously stated, unshine is helpful at all times, except when the lants are actually in flower, but it is particularly ecessary during the latter part of the summer nd in autumn, for upon a thorough ripening of he wood the future display of flowers depends. The watering of these Phyllocacti is a tumbling-block to many, as by some they are ept in a constant state of moisture, while thers err in the other extreme by keeping them oo dry. Throughout the summer they need to e watered with moderate freedom, lessening he supply, of course, as autumn advances. In he depth of winter very little will e required, but at no time must he soil become parched up.

Propagation is readily effected by neans of cuttings, which, however, ake a fair time to root. Side hoots from 4 inches to 6 inches in ength form the best cuttings. In eparating these shoots from the arent plant the better plan is to ull them out of their sockets with side twist, though a little assist- nce from a sharp knife will be ometimes necessary. The pots repared for the cuttings should e drained rather more than estab- ished plants require and a little nore sand mixed with the soil han has been recommended for hese. It matters little whether he cuttings are put singly into mall pots or about four around a ot 5 inches in diameter. A shelf n the greenhouse is a very suitable lace for the cuttings, as they do ot require to be kept in a close ase as many plants do. The soil eeds to be kept moist, but an xcess of moisture will probably rove fatal. If possible, the cut- ings should be taken in the pring or during the first half of he summer, as in this way they re allowed sufficient time to get well rooted before winter.

In making a selection of these howy flowers it must be borne in mind that the different raisers ame their own productions; hence ome distributed by one person may e almost, if not quite, identical with those sent out by another. The varieties raised by Messrs. Veitch are among the most note- worthy of all, by reason of the fact hat so many of them have at one ime or other been given awards of merit by the Royal Horticultural Society. This strain is remarkable for the soft delicate tints of many of the varieties, which range in colour from creamy white through different shades of pink to the more vividly tinted forms. Some of these last have the petals shot with violet or purple in such a way that the flower appears to be of different colours, according to the standpoint from which it is viewed.

Besides these different hybrid Phyllocacti, others worthy of mention and well suited for association therewith are Cereus flagelliformis, the Rat's-tail Cactus of cottages, which may be often seen hung up in a window. In this way the cord-like, pendulous shoots are seen to con- siderable advantage. The rose-coloured flowers are very pretty. A hybrid between this species and C. speciosissimus known as C. Mallisonii is also very desirable. Phyllocactus crenatus bears large creamy white flowers; and one that must on no account be passed over is P. phyllanthoides, of which an improved form known as German Empress formed a very notable feature in Messrs. Cannell's group at the recent Temple Show. This has pretty pink flowers, which are borne quite freely when the plants are but a few inches high.

H. P.

COLOURED PLATE.

PLATE 1377.

CACTUS-FLOWERED CINERARIAS.

DURING recent years the old-fashioned but brilliant greenhouse Cineraria has been very much improved, and this year has seen the introduction of a new type properly named the Cactus-flowered. As will be seen by the accompanying coloured plate, the speci- mens have the narrow incurved petals which are so typical of the Cactus Dahlia, and it will also be noticed that this type possesses some very attractive new colour shades of pink in addition to the richer colour shades of the older flowered varieties. It is to Messrs. Sutton and Sons of Reading that we owe the introduction of this new type. About eight years ago Messrs. Sutton, instead of discarding the narrow-petalled plants which appeared in the old, broader- petalled type, saved the plants and obtained seed from them, and by careful selection since that time have worked this strain up to its present form. Probably many of our readers will remember the fine group of these Cinerarias staged by this firm at the Royal Horticultural Society's meeting on March 23 last, when this strain received an award of merit. Our coloured plate was prepared from a colour photograph taken in one of Messrs. Sutton and Sons' houses at Reading, and demonstrates fully the value of these plants for greenhouse decora- tion. We understand that this new race needs precisely the same culture as that afforded the older type.

IRIS HYBRIDA SIR TREVOR LAWRENCE.

(*Natural size*)

FLOWER GARDEN.

WILD VIOLETS.

ALTHOUGH spring has vanished and the more brilliant and longer days of summer are now with us, this should not prevent all who love their gardens from giving a thought to the less glaring flowers that charm our hearts during the early months of the year. One of the sweetest yet simplest of these is the wild Violet, of which there are several distinct sorts, that shown on page 324 being the white-flowered single variety that modestly pushes forth its fragrant flowers on grassy banks and sheltered nooks. What it is capable of doing when it finds a position to suit it will be readily seen in the illustration. There must be in many gardens wild grassy spots where this Violet would be at home, and as plants can be obtained from almost any hedgerow there should not be much trouble in establishing a colony. No prepara- tion of the soil beyond cutting away a little of the turf is neces- sary, as the plant would be out of place in any part of the garden where cultivation was carried out. In addition to the white variety there are, of course, several blue- flowered ones to be found growing wild in our hedgerows, and these are equally suitable for planting in semi-wild spots in the woodland.

IRIS HYBRIDA SIR TREVOR LAWRENCE.

HYBRIDISTS appear to be exceed- ingly busy with the many forms of Irises now known to growers in this country, and already we have many beautiful hybrids as the results of their labours. The flower illustrated is one of the best of these new additions, and is the result of a cross between I. pallida dalmatica and I. iberica. It was raised by the late Professor Foster of Cambridge, and was shown by Mr. Amos Perry at the Temple Show this year, when it gained an award of merit. The standards and falls are of deep rose-mauve colour, and both, as will be seen in the illustration, are very prettily veined. Another new hybrid was shown by Mr. Perry at the same show, and this also was of high merit.

THE NANKEEN LILY.

(LILIUM TESTACEUM.)

THIS charming Lily is one of the most distinct of the whole family, and what is more, it is of an accommodating nature, thriving in the open ground and also in pots. The popular name of the Nankeen Lily is derived from the colour of the flowers, which is of a clear nankeen tint, not to be found in any other kind.

It is too well known to need any detailed description; therefore it will suffice to say that this Lily will, under favourable conditions, reach a height of 5 feet to 8 feet, and when in a mass or clump, as seen in the accompanying illustration, it forms a delightful picture. The wand-like stems are, as a rule, well furnished with leaves and terminated by a head of prettily reflexed flowers, which, as in all the Martagon Lilies, are of a drooping nature. The bright red anthers form a very striking feature against the rest of the flower.

The Nankeen Lily will thrive in a well-drained loamy soil, particularly if it is rather sandy. Like many others, it is seen at its best when planted among low-growing evergreens, which must not, however, be too close together. The flowers have a powerful and pleasing perfume. The origin of this beautiful Lily is doubtful; but the generally accepted idea is that it is a hybrid between Lilium candidum and L. chalcedonicum. Though this theory is borne out by its general appearance, there does not appear to be any absolute proof of its correctness. The bulb of L. testaceum much resembles that of the Madonna Lily (L. candidum), which is the earliest of all Lilies to start into growth. Next comes L. testaceum, or, rather, it appears above ground at much the same time as the Japanese L. Hansonii, while these two are closely followed by the scarlet Turk's-cap (L. chalcedonicum). This last, although it starts early into growth, is among the later Lilies to flower, as it frequently does not bloom till July is well advanced, whereas L. testaceum is usually at its best towards the latter part of June.

When in pots and brought on under glass, it can, of course, be had in flower earlier; indeed, a fine mass of it formed one of the most notable features in Messrs. Wallace's group at the Temple Show this year. Besides the specific name of testaceum, it is also known as L. isabellinum and L. excelsum. This last name is very suggestive, as when thoroughly established and in good condition it is really a tall and stately Lily.

As nothing authentic seems to be known concerning the origin of L. testaceum, I have been very much interested in an account of its early history that has come under my notice in a publication of 122 pages, entitled: "Monographie, Historique et Littéraire des Lis, par F. de Cannart d'Hamale, Président de la fédération des Sociétiés d'Horticulture de Belgique &c," printed at Malines in 1870. Somewhat curtailed, its early history is given as follows:

"There is also another Lily with recurved petals, concerning the origin of which we have but a vague idea, but which, nevertheless, appears to be Japanese, viz., Lilium testaceum of Lindley (the Nankeen Lily). It was first discovered by M. Fr. Ad. Haage, jun., of Erfurt accidentally in a large consignment of Martagons, which he had received from Holland in 1836 and with which it had been mixed. The plant was introduced into Belgium by L. Van Houtte of Ghent, who had received a case full of it from M. Von Weissenborn of Erfurt in exchange for some Fuchsias. This exchange was made in 1840 or 1841, at which time there is no question that of this unknown Lily three persons of Lille in France each possessed an offset. One only of these offsets chanced to flower at Esquermes-lez-Lille, and showed an umbel of pendant blossoms, with petals reflexed like the Martagons, but larger and of a beautiful nankeen colour slightly tinged with rose, and dotted with a deeper tint at the base. The bright orange coloured stamens served to add to the beauty of the flower. M. Van Houtte, who happened to be at Lille, was fortunate enough to see this splendid novelty. He eventually received from M. Von Weissenborn an order for Fuchsias, with a post-script in the following terms: 'If by any chance you want the nankeen-coloured Lily I have a quantity at your service.' M. Van Houtte did not think twice about it, and seized with avidity the good fortune offered to him. He accepted the exchange, and soon became the possessor of a case more than a yard square full of Nankeen Lilies of all sizes, the largest bulbs measuring more than a foot in circumference. This news soon spread to Lille, and there caused much talk and great disappointment when the possessors of the three offsets were convinced that the Lily of which M. Van Houtte had become the owner was the same as those which they guarded so jealously. The Nankeen Lily passed from Belgium to England, where it flowered for the first time, in 1842, with Messrs. Rollisson. It was figured and described in the Botanical Register by Dr. Lindley in 1843 under the name of L. testaceum. Dr. Kimtze of Halle had described it as L. isabellinum, and it also bore the name of L. excelsum among gardeners." Such is the account of the early history of this beautiful Lily.

H. P.

THE NANKEEN LILY, LILIUM TESTACEUM, IN A RHODODENDRON BED AT KEW.

SWEET PEA CHAT.

WATERING.—There are some people in this world to whom the term "watering" means the application of water to the roots or branches of a plant on every available occasion and nothing more; but the intelligent cultivator knows full well that there is no detail of management that exercises a greater effect upon the results than this, and in Sweet Pea culture it is in some real degree the man who knows how and when to water who is likely to achieve the finest results. There is nothing easier in gardening than to err in watering, and the trouble may arise from shortness or the reverse. It is simple to speak broadly and say that in dry summer weather the plants will demand water about once a week, and if this is done someone will certainly follow the advice to the bitter end, with the result that he is bound to go wrong sooner or later. No one can advise in this matter who is not on the spot. The weather is, of course, a dominating factor, while the nature of the soil is a subject that is equally worthy of consideration in deciding the frequency of application. When all has been said, in few or many words, the end will have to be to tell each man to use his common sense and judgment and water when it is required, and never at any other time. If this is made a fixed rule, there can be no going astray, since the grower will thoroughly soak the soil just in advance of dryness, whether he has to do it once a week, twice a week or once a month. In all cases the drink should be a generous one—nothing short of three gallons to the square yard in ordinary soils and five gallons in light, sandy land that is freely, possibly excessively, drained will be of use. It is wise in the use of water coming direct from mains to make drills along each side of the rows and repeatedly fill them so that the cold water shall not strike directly on to the stems or surface roots.

FEEDING.—This follows naturally after watering; indeed, we water to feed our plants, and the terms are therefore in some sense tautological. But in gardening feeding means the application of manure in one form or another and generally as a liquid manure. In dealing with Sweet Peas in this relation we have plants that will stand and derive benefit from practically unlimited supplies, provided that whatever is given is never strong and that we can find a satisfactory variety of diet. Satiation follows quickly upon the continued use of one kind, and we see that our plants are not responding to our attentions as they ought to do; hence the necessity for changes. Nitrate of soda or sulphate of ammonia at the rate of 1oz. to the gallon of water, three gallons to the square yard; nitrate of potash, half an ounce to the gallon; soot-water or liquid manure from natural excreta, both used of pale ale colour, are all excellent; but the third named is probably the best of the concentrated foods, and the two last named best of the whole lot, if the material from which the liquid is made is really good—that is to say, if it contained all the essential plant foods before it was converted into liquid. In any case it is imperative that the food shall follow upon applications of pure water, and the frequency of use must be governed by the soil and the plants.

MULCHING.—It is, however, most desirable that watering shall be avoided as far as possible,

SUTTON'S CACTUS-FLOWERED CINERARIAS.

and to this end the application of a heavy mulching of natural manure is strongly advocated, or, should this not be possible, let the clippings from the lawn take its place. If the surface were lightly hoed in advance of dressing and the soil beneath were pleasantly moist, the covering would ensure the retention of the moisture and food in the soil and, at the same time, keep the surface cool and thus encourage the roots to remain well up to the top, where they get the full benefit of the warm, fresh air. One objection to the use of manure in this manner lies in the wretched state that it assumes after watering; but if it is drawn aside when water has to be given and then thrown forward again, this trouble is immediately and completely overcome. In no case must the mulching be omitted on light soils, or the plants will inevitably suffer.

SPENCER.

A SIMPLE AND BEAUTIFUL ROCKERY.

THE cost of a rockery is often considered beyond the reach of many who would fain have in their gardens this valuable feature—valuable not only for its picturesqueness, but also because it affords facilities for the cultivation of flowers which cannot well be grown in the ordinary border. Apart from their requirements in other respects, many of these plants require to be hanging over stones in order to reveal their full beauty, and on the elevated rockwork they look infinitely better than on the level ground. The rockery here illustrated from a photograph is one which is of the simplest character.

The soil of which it is composed is that which was excavated in the course of the preparation of the ground for the foundations of the dwelling. Instead of this being carted away or spread over the garden, as is too often the manner of the builder, the latter received instructions to have it wheeled away into a mound to be made in the part of the garden selected for the rockery. This was provided for in the contract, and no additional, but instead less, cost was involved to the builder. This mound was but little interfered with in form, but some narrow paths were cut through it a few inches beneath the level of the mound, and these were edged with stones. Then the mound was roughly terraced with the stones left by the builder—these were of sandstone, by the way—and the terraces made flat on the surface. These stones also would have otherwise been carted away, and the builder was thus saved expense, to the gain of the proprietor as well. In few cases was any fresh soil added, the vast majority of the flowers being planted in the soil from the foundations, which consisted of a rather poor loam with a host of stones in it; but, as will be seen in the illustration, the flowers have thriven in this medium, as they have only been in this rockery for about four years, and no healthier or freer-flowering set of alpine flowers can be wished for.

The Violas that can be seen are principally plants of the wonderfully free and continuous blooming V. cornuta Papilio. Then several Saxifragas may be observed. There are S. Rhei, S. R. superba, S. muscoides, S. Guildford Seedling, S. Fergusoni, S. Aizoon in variety, S. primuloides, Armeria pinifolia, A. laucheana and A. plantaginea. Alyssums are also doing well, and some of the best forms of Anemone nemorosa are also cultivated. Ericas, New Zealand Veronicas, Heucheras, Hypericums, Anthemises, Phloxes of the subulata class, Aquilegias and many other flowers find a place on this rockery. Constructed of what is practically waste material, and with no pretentions to being an imitation of natural rockwork, it is yet a true home for flowers—a home in which they delight, and in which they give their lovely flowers with a freedom unsurpassed by those which are cultivated on more costly rockwork.

Dumfries. S. ARNOTT.

THE ROSE GARDEN.

UNPRUNED BUSHES OF TEA ROSES.

WHAT some might term a neglected bush of the old Rose Safrano was on June 16 to be seen in full bloom upon the surface of a grave in the pretty little cemetery at Leigh-on-Sea. Apparently this bush had had no pruner's knife or secateurs over it since it was planted; but there it was, flourishing like a Lilac bush, fully 6 feet in height and resplendent in bloom. Two huge bushes of the old common Monthly Rose were close by, and the trio made a picture of very great beauty. Growing in the stiffest clay of Essex, there was a Tea Rose the very ideal of what Nature intended these beautiful Tea Roses to be. What an object-lesson to those men who seem to glory in hacking their Roses down to the ground level each year. Surely we have much to learn or to unlearn in our treatment of the glorious Roses belonging to the tribe of which Safrano is one of its oldest representatives. We often read of the immense size such Roses attain on the Riviera and similarly favoured places, little thinking that they will do the same with us if only we encourage them. A learned judge from Egypt told me last year that he had Medea growing with him to a height of 6 feet. What a sight it must be! Such Roses as Marie van Houtte will attain on a wall, even in our own country, a height of 20 feet; but how rarely we find this dear old favourite more than the customary 3 feet to 4 feet high.

It seems to me that a very important detail is to have deep holes prepared for these Roses, even though the soil be a heavy clay. Take, for instance, a grave surface. We all know how the soil is thrown out to a depth of about 6 feet, and, of course, the clay is returned first. I would, therefore, suggest a trial of this plan next autumn, and give the Roses a good space between each specimen, say, about 5 feet. Just let the plants grow as they like and keep the knife in the pocket. There are scores, aye! even hundreds, of delightful Tea Roses that would grow equally as well as Safrano which have been discarded for some of the very stumpy-growing Hybrid Teas, simply because these latter bear a magnificent bloom. For my part, give me a huge bush like this Safrano, where one may cut armfuls of Roses if they desire; but, of course, I do not recommend the practice, or we should defeat our object in possessing some large specimen shrub Roses. Many speak and write as though the Briars and such like Roses are the only ones to grow as shrubs. My advice is, give the Teas a trial. Plant such decorative beauties as G. Nabonnand, and try and obtain some of the older sorts, such as Mme. Carnot, a whitish lemon Rose, which I saw last summer growing splendidly, and many others that our Continental growers, happily, still cultivate, and I can promise them a real feast of Roses. It would be interesting to readers of THE GARDEN if those who possess some extraordinary specimens such as I have attempted to describe would give some particulars of sorts and treatment. Some time ago a correspondent informed me that he had a W. A. Richardson on a standard that bore fully 1,500 blooms. If the Editor could give us some illustrations of such specimens, he would delight many besides the writer.

P.

A SIMPLE AND BEAUTIFUL ROCK GARDEN.

A PRETTY NEW CHINA ROSE.

A VERY lovely novelty is Les Gloriettes, the predominating colour being coppery red and the bases of the petals clear yellow. The flowers are rosette shaped and very fragrant. The China Roses are a most useful group. What a wealth of beauty there is even in the old blush pink variety! It is marvellous what a richness of colour one obtains in this Rose when it is liberally watered with liquid manure. I have a quantity planted this spring that are now yielding lovely blooms, the buds being very rich pink. Among the Chinas are to be found many of our choicest decorative Roses. Comtesse de Cayla is splendid and of a rich orange and copper tint, and Charlotte Klemm is one of the most brilliant bedders of recent years. Laure Dupont is quite a new colour, a bright carmine with a bluish tint, shaded with silver. It was raised from Armosa, crossed with Louis van Houtte, so it has a little of the Bourbon blood in it, for I always look upon Armosa or Hermosa as much a Bourbon Rose as a China.

P.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—The present is an excellent time to propagate the old-fashioned garden Pinks, and as the operation is a very simple one, the beginner should certainly make an effort to increase the existing stock, young plants always producing better flowers than old ones. If an old plant is examined it

I.—A CHRYSANTHEMUM READY FOR PLACING IN ITS FLOWERING POT.

will be found that there are a number of sturdy leafy shoots which have not flowered, and these make excellent slips or cuttings. By giving each shoot a sharp downward pull it will come away from the plant with a little knob or heel at its base, and frequently with a few tiny white roots adhering. The lower leaves should be cut, not pulled, off and the slips or cuttings then planted about 2 inches or rather less deep in well-worked soil, placing them in rows 9 inches apart and allowing a distance of 3 inches between the cuttings. Choose a wet day for the work if possible, and make the soil firm at the base of each cutting, affording water until growth is active should the weather subsequently prove dry. Bedding Pansies for flowering early next summer may be sown now. I prefer to form the seed-bed in a semi-shaded spot outdoors, and sow the seeds in shallow drills 9 inches apart, pricking off the seedlings as soon as they are large enough to handle comfortably. For convenience they should be planted in rows about 9 inches apart and the seedlings 3 inches asunder. Where the soil is naturally cold and wet, the plants should be lifted and placed in a cold frame at the end of October, there to remain for the winter, but having an abundance of air at all times, the frame only being needed to ward off excessive rain and snow and to give some slight protection in extremely cold weather.

Vegetable Garden.—Where space is available a sowing of a very early Pea may be made at this time, and should the weather prove favourable, an extra late crop will be secured from the resultant plants. Of course, watering will be necessary and thin sowing is absolutely essential. Peas that are swelling their pods must also be afforded good soakings of water during dry weather, otherwise the flavour will be of an inferior character. Push on with the planting of winter Greens, these usually occupying the ground cleared of early Potatoes and Peas. Sow more Lettuces and Radishes, as if the weather should prove rainy and dull for a few weeks, good salading would be secured from these crops. Those who appreciate Parsley during the winter months should make a sowing now, choosing a well-drained and sheltered spot for the purpose. If thinned early so as to grow sturdy plants from, this sowing will frequently give good leaves when the earlier-sown plants are bare or even killed.

Fruit Garden.—Currants and Gooseberries will now or shortly be ripening, and as birds are notoriously fond of these it will be necessary to place nets over the bushes to protect the crop. Considering how cheaply old fish netting can be obtained and how excellent it is for the purpose, it is surprising that it is not more generally employed by amateurs. Care must be taken that no holes are left, especially underneath the bushes, else the birds are sure to find their way in to the fruit. Green fly is usually prevalent on Cherries and other fruit trees at this season, and although where nearly full-grown fruit is present insecticides cannot be used, much good can be done by forcibly spraying the shoots with clear water. It is true this will only dislodge the pests, but it is the best that can be done under the circumstances. If hot water can be used, so much the better.

Greenhouse and Frames.—At this season, owing to the rush of work outdoors, foliage plants in the greenhouse frequently get neglected and quickly become infested with various kinds of insect pests. Advantage should be taken of a wet day to attend to the sponging and cleansing of all such specimens, as their welfare is considerably advanced by so doing. The earliest-sown Cinerarias will now be large enough for potting singly into 2-inch pots, and the work must not be long delayed. Use a friable soil that contains some leaf-mould, and after potting stand the young plants in a cool and lightly shaded frame. As the pots become filled with roots the plants must be tranferred to others of a larger size, taking care to always give them a cool situation and free ventilation. H.

THE FINAL POTTING OF CHRYSANTHEMUMS.

MANY beginners in the culture of the Chrysanthemum succeed in growing their plants well from the cutting stage till they are well established in pots either 5 inches or 6 inches in diameter. It is from this period, however, that more care and attention are necessary if the plants are to do well and their prospects are to be in any degree satisfactory. The term "final potting" is a technical expression thoroughly well understood and appreciated by the expert grower; but I doubt whether many who have only this season attempted the cultivation of the "Autumn Queen" really understand its true significance. To give the Chrysanthemums their final shift is really to place the plants in their flowering pots, and as the plants are to remain in these pots for several months, readers who are beginners will perhaps understand the importance of this final potting operation.

First of all, the beginner should use clean pots and crocks. Old pots, some of which may be green and very dirty, should be given a thorough cleansing. The broken pots that are used for crocks should, if dirty, be treated in similar fashion. Do not wipe the pots dry by the aid of a cloth, but stand them in the open to drain. When treated in this way the pots absorb a certain amount of moisture, and this avoids the risk of the pots absorbing the moisture in the soil used. This may seem a trifling detail, but really it is a not unimportant factor in successful culture. New pots should be soaked in like manner, but in this case it is not necessary to scrub or wash them.

Soil for this final potting is a most important factor. Use three parts good fibrous loam, one part leaf-mould, half a part well-rotted horse-manure and a free dusting of wood-ashes or crushed charcoal. Clean road grit or coarse silver sand should be added in sufficient quantity to make the compost porous—a quarter of a part will probably be ample for the purpose. To each bushel of soil add a 5-inch potful of Clay's Fertilizer, Ichthemic Guano or any other well-known and approved fertiliser. Some growers also add a sprinkling of either old mortar rubbish or crushed oyster shell; I prefer the latter, as this assists to sweeten the soil. Next give the heap of soils a thorough mixing, so that the whole of the ingredients may be evenly distributed. Place the compost under cover in case of rain, and in the interval between the present and the actual

2.—A PLANT FINALLY POTTED IN A 9-INCH POT. NOTE THAT THE SURFACE SOIL IS WELL BELOW THE RIM OF THE POT.

potting turn over the heap each day to further improve its condition.

Next proceed to crock the pots. Place a good flat or concave piece over the hole in the bottom of the pot, and follow on with two or more layers of crocks of gradually diminishing size, arranging these most carefully to ensure a good system of drainage. Place over the crocks a handful or two of the rougher portions of the

3.—TWO PLANTS POTTED IN A 9-INCH POT.

soil to prevent the smaller particles working down into the drainage and clogging it. Make this quite firm before placing a handful or so of the finer soil in the bottom on which to rest the base of the plant that is to be finally potted. Make this latter fairly firm and all will then be ready.

At this point we must consider what pots should be used. Strong, vigorous-rooting plants should be placed in pots 9 inches in diameter; those less vigorous will be satisfied with pots 8 inches across, which are also known as "twenty-fours." These pots are generally used in the case of plants that are grown to produce large individual blooms, but, of course, they may be used for plants of a decorative character with equal success. Those who wish to economise space should place two plants in a 9-inch pot or three plants in a 10-inch pot; this is a simple and effective way of dealing with rather small plants as well as those of larger size.

The readiness of a plant for the final potting is an all-important matter to decide. No plant should be placed in its flowering pot unless it is well rooted and has used up much of the plant food in the smaller pot in which it is at present growing. Fig. 1 illustrates the character of a plant ready to be placed in its flowering pot. A careful inspection of the ball of soil will reveal the mass of roots growing away most vigorously, and unless the plant be placed in a larger pot very speedily the roots will become so matted together as to make it almost impossible to disentangle them when removing the crocks from the base of the plant previous to the repotting. When placing the plant in position in its larger pot, keep the surface soil well down below the rim of the pot. First adjust the plant in position in the centre, and then proceed to fill in all round with the prepared compost. Do this gradually, making the soil firm with the aid of a wooden wedge-shaped rammer, taking care all the time not to damage or bruise the roots in the process. Continue this till the surface level is reached, when the soil should be made quite firm with the hands. On no account ram the surface soil, or the damage may be irreparable. When completed the plant should present an appearance similar to that seen in Fig. 2. The reason why there should be plenty of space left below the rim of the pot is that ample supplies of water may be given as and when required.

Those who wish to grow two plants in each flowering pot should use two plants of one variety, and as nearly as possible of even size. There should be a small amount of space between the plants when placed in position, and the soil should be made quite firm between them as well as near to the edge of the pot. Two plants finally potted are depicted in Fig. 3. These plants are growing in a 9-inch pot. Three plants potted up in a pot 10 inches in diameter are aptly portrayed in Fig. 4. In this case the plants must be adjusted most carefully and equidistant before the compost is filled in and made firm. For Chrysanthemums of a decorative nature this method of potting is invaluable. Stand the plants pot to pot for a week or ten days, first giving them a good watering with a rosed can. Stake the taller plants at once to prevent loss by winds and storms. D. B. C.

CUTTING BACK FERNS.

So many who grow Ferns in pots mismanage them by allowing them to become dry at the root, and it is from this that nine out of ten of the failures arise. When this occurs they suffer greatly; some kinds never regain their leafage and become an eyesore. Then the owner is anxious to cut them over, often asking someone or writing to you, Mr. Editor. I am frequently asked, "When may I cut off this foliage?" without knowing the kind or the treatment it has had, and nothing is more difficult to answer. The best reply I can give is, Study Nature; and if this is done much light is obtained, for Nature does not allow the plants to become dust dry when in full growth.

Let anyone observe how Nature manages the hardy kinds in their natural habitats. When visiting the West of England, where many hardy kinds grow abundantly, I have often noticed the length of time the old foliage remained on them. Generally by the time the young growths are developed the previous year's fronds are dead; in fact, these often die off and form a protection for the young foliage. In pots they need studying on the same lines, and the old leafage may be removed gradually as the young fronds are just appearing. J. CROOK.

THE TOWN GARDEN.

LAWNS.—The grass on the lawns will grow very rapidly now after the rains. As a rule, the lawns do not require much attention at this time as regards frequent mowing; but in many instances the case will be different during the present month, owing to the heavy rains which have fallen recently in some parts of the country. It is a condition which is infinitely better than one where the hose-pipe has to be used constantly. It does not matter how well the flowers look in the borders; if the lawn is brown or left in an untidy state, the garden as a whole will not present a good appearance. There is one hint in regard to the mowing of lawns at the present time that will be useful to the inexperienced amateur, and this is to avoid cutting the grass quite as low down as in the months of May and June. Even half an inch higher will make a great difference, as the surface will then present a closer and more velvety appearance, especially when viewed from a short distance. If cut very low at this season of the year the old stumps of grass will be exposed, and then the lawn will look brown.

STAKING BORDER PLANTS.—Medium and tall growing border subjects must now be supported with neat stakes. The latter look best if painted with two coats of green paint. If time does not allow of two paintings, one, at least, should be given, as light-coloured stakes do not present a nice appearance in a plant border. It will not be necessary to use very long stakes even for the tall-growing plants. The spike and flower portion does not require any support except in certain instances, such as when Gladioli are being staked, so that plants growing 3 feet high, including 1 foot of flower-spike, will only need stakes 3 feet long, which must be driven into the border soil 1 foot deep, thus leaving 2 feet above the soil. The cultivator must not draw together a number of the stems of the plants and their leaves and then tie them all bundle fashion to a single stake. This would be the wrong way. The right way is to give the necessary support without altering the natural form of the plant, so that a few extra stakes may be used with great advantage, yet by judiciously tying certain outside branches with soft matting to some of the inside stems when dealing with clumps the true habit of the plants may be retained.

PROPAGATING PINKS.—It is not too late to increase the stock of Pinks by putting in some cuttings in a prepared border. I like to get at this work before all the flowers have faded on the parent plants; but in many cases amateurs do not like to meddle with their pets until all the flowers have faded. To be successful the cultivator must be sure he does not allow the cuttings or "pipings" to get dry after they have been severed from the old plants. The basal shoots which have not borne flowers make the best cuttings. They must be removed from the old stem with a small portion, or heel, of wood attached, and this can be easily done by simply pressing down the cutting with the thumb and forefinger of one hand. Then remove two or three of the lowest leaves from the cutting, make the heel portion smooth with the aid of a very sharp knife, and also make a slit upwards about half an inch long in the centre of the stem, as by so doing the cutting will possess a larger rooting surface. In the meantime prepare a border on the north side of a wall by digging the soil and mixing with it some coarse sand and leaf-soil, or well-decayed manure if it be of a clayey, retentive nature. Directly the cuttings are taken off the old plants they must be placed in water. After they are prepared, replace them in the water until all are inserted. The border soil must be made firm and the cuttings inserted in it in rows 9 inches apart and 4 inches asunder in the rows. Sand must be put around the base of each cutting. Give water through a fine-rosed watering-can forthwith. AVON.

4.—THREE DECORATIVE CHRYSANTHEMUMS PLACED IN A 10-INCH POT TO FORM A LARGE, BUSHY SPECIMEN.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUIT DEPARTMENT.

MELONS.—Plants growing in frames and which have extended their growths to within a few inches of the sides should be stopped to encourage the lateral shoots to throw out fruits. Pinch the fruit-bearing shoots one joint above the blooms, fertilise the flowers in dry weather, and if more set than will be required for the crop, cut them off early. Keep the roots well supplied with moisture and close the lights early in the afternoon. Expose all ripening fruits well to the sun to assist both the colour and flavour, and apply air more freely. Young plants raised from seed sown three weeks ago for the supply of fruits in September and October should be planted at once. If the houses are in readiness, plant on mounds, and let the soil be rather heavy and firm. After the plants have been put out, shade for a few days during bright weather, water to settle the soil and syringe overhead twice daily. Do not ventilate too freely until the roots have taken to the new soil, and be mindful not to allow the water to settle too near the stems.

Strawberries for Forcing.—Almost as soon as the last batch of plants have been cleared of their crops it is time to commence preparations for the next spring supply. Some capital plants may be reared, both in their fruiting and in 3-inch pots, to be potted a month hence. Select strong runners. If to be pegged on the soil in the fruiting pots (6 inch), see that the drainage is good and the soil sweet, moderately rich and firmly pressed. Strawberries like a firm soil, which enables them to produce stout, well-developed crowns, and plenty of light and air must circulate freely among the plants at all times. Royal Sovereign is one of the best for forcing, and like many other plants a change of stock is sometimes necessary.

KITCHEN GARDEN.

Cucumbers.—A fresh batch of young plants should now be reared for later supplies. Sow medium-sized productive varieties for late use and winter work, and crop very lightly till the plants have gained ample strength.

Tomatoes.—These should be bearing very freely, and to encourage their productiveness feed liberally with liquid manure. Keep the side shoots removed and cut the fruits as soon as they are ready, so as to give the later ones a better chance to develop. Another lot of plants may now be raised to produce fruits late in the season. Carter's Sunrise, Lye's Favourite and Chemin Rouge are reliable varieties, and will yield good crops of serviceable-sized fruits.

PLANTS UNDER GLASS.

Decorative Plants.—In most gardens there is a constant demand for plants for house decoration, and to meet the requirements propagating must never be overlooked. At the present time a great deal of anxiety may be averted at a later period by looking well ahead and raising a number of the most useful plants for the different purposes, so as to get them well established by the end of the season.

Balsams.—Keep these growing freely in cold frames. Lightly damp the plants overhead once or twice daily, and remove all the flowers as fast as they appear till the plants have attained a good size. The lower side growths may be trained in an outward direction, and if the roots are liberally supplied with water and liquid manure some capital plants will be the result.

H. MARKHAM.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

FRUIT HOUSES.

MELONS.—The bright, warm weather of late has favoured the growth of these, and ripe fruits of excellent quality are now plentiful. To prolong the supply from a given house, some of the fruits removed from the plants as soon as the first traces of colour are observable and placed in a cool room will effect this end, and the difference in flavour to those allowed to finish in the usual way will be scarcely perceptible. Successional crops can now be grown strongly, as moisture can be freely used under the influence of bright sunlight. Pinch out lateral growths to prevent overcrowding, but preserve the main leaves and keep these free from insects by the usual methods. Guard against dryness at the roots, and more particularly in supplying water should this inadvertently occur, or cracking of the fruits is almost certain to follow.

Cucumbers.—Any plants that have been bearing for some time may have liberal supplies of manure-water until the frame-grown fruits are ready, when they may be removed and the house again prepared for autumn and winter plants, seeds of which may be sown very shortly.

Vineries.—Madresfield Court and Foster's Seedling Grapes are very liable to cracking of the berries as ripening commences; a warm and moderately dry atmosphere maintained by slight heat in the pipes and a little air on the house at all times are the most likely preventives of this evil.

Peaches and Nectarines.—As the earlier trees are cleared of fruit, all superabundant shoots may be cut away and the remaining foliage be well washed—if fairly clean, with clear water; but if insect pests have obtained a footing, with some approved insecticide added—afterwards keeping the house cool, or, if possible, remove the roof-lights altogether when the foliage becomes sufficiently matured to withstand this course without risk of injury.

HARDY FRUITS.

Strawberries.—Where very early forced fruits are in request, runners should be layered into small pots filled with good loam as soon as possible. Plantations made last autumn for the purpose of supplying runners for layering are best, but failing these a row or two bearing fruit may be reserved from much treading in the process of gathering the crop. If the pots can be plunged to the rims or have loose litter placed around them, time and labour in watering will be saved.

Raspberries.—Superfluous sucker growths should be wrenched off the plants in good time, thus giving greater advantages by way of light and air to those left, which will form the fruiting canes for next year. Weed and stir the surface soil, and if a mixture of stable litter, leaves or lawn mowings is at hand its use as a mulching would be very beneficial. Drought is fatal to this crop, and copious supplies of water must, where possible, be given.

KITCHEN GARDEN.

Carrots.—Young, tender roots of these are always appreciated, and sowings made now of Intermediate or Nantes types will come in useful in autumn. Continue to syringe early sowings with paraffin liquid—1oz. to the gallon of water applied often is better than stronger doses, which might injure the delicate foliage and yet be no more effective against the fly.

Onions may have similar treatment and occasionally be given slight dressings of soot or nitrate of soda as a stimulant, this, in the absence of rain, to be well watered in. Bulbs for exhibition enlarge more quickly when some form of mulching is used, the same being removed early in August to facilitate the ripening process.

JAMES DAY.
(Gardener to the Earl of Galloway.)
Galloway House, Garlieston, Wigtownshire.

NEW PLANTS.

DELPHINIUM MOERHEIMI.—A pretty white-flowered variety of free branching habit. It is said to have been obtained from crossing D. Belladonna and D. chinense album, and possesses the continuous flowering character of the first named. Award of merit.

Aster Mesa grandiflora.—The specific name given is new to us, and we can only say that it has reference to a singularly pretty and beautiful plant of some 2 feet high, and flower-heads of which the ray florets are pale blue, very numerous and almost thread-like in character. A distinct and graceful plant. Award of merit. Both the above were exhibited by Messrs. William Cutbush and Sons, Highgate.

Carnation Her Majesty.—A yellow ground variety of much excellence, the heavy purple edge and firm petal substance being very pronounced. From Mr. C. Blick, Warren Nursery, Hayes, Kent. Award of merit.

Pæonia (single) Leonora.—Colour crimson lake, and contrasting well with the golden anthers in the centre. A very handsome flower. Award of merit.

Pæonia Queen of Singles.—The colour of this is satiny white, the yellow tuft of anthers being very effective. Award of merit. Both were shown by Mr. Charles Turner, Slough.

Campanula phyctidocalyx.—A pretty deep blue Bellflower, the base of the corolla internally being of a dark purple. From Sir Trevor Lawrence, Bart., Dorking. Award of merit.

Sweet Pea Stirling Stent.—A very striking variety of carmine-scarlet hue. From Mr. J. Agate, Havant, Hants. Award of merit.

Sweet Pea Blanche Stevens.—A very large and handsome pure white variety, probably the largest yet seen, and despite the fact that the flowers are placed at somewhat long intervals on the stem, we think it marks an advance in white-flowered sorts. In shape the flowers resemble Dorothy Eckford. From H. J. Jones, Limited, Lewisham, S.E. Award of merit.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London, W.C.

A BLACK-LEAVED BEDDING PELARGONIUM.

Mr. Alva J. Hall, 12, Parliament Street, Harrogate, sends us a plant of a black-leaved bedding Pelargonium, which is evidently a sport from the well-known West Brighton Gem. It appears to be a vigorous variety, and the bright scarlet flowers contrast pleasantly with the nearly black foliage. It is certainly a unique novelty.

A NEW PINK.

Messrs. Stuart Low and Co. of Bush Hill Park, Enfield, send us flowers of a new Pink, which they call Gloriosa. This is a very large-flowered variety and is of vigorous habit, the blossoms being of rose-mauve colour and very highly perfumed.

FLOWERS FROM IRELAND.

Mr. H. Armytage Moore, Rowallane, Saintfield, County Down, sends us an interesting collection of flowers, among which we were

pleased to see the pretty Tricuspidaria lanceolata. He writes: "I am sending for your table flowers of Tricuspidaria lanceolata, Philadelphus Delavayi, Eriophyllum cæspitosum, Inula glandulosa variabilis and Primula cockburniana. Tricuspidaria lanceolata flowers with great freedom here, and is certainly the most conspicuous shrub in bloom with me just now. Philadelphus Delavayi strikes me as a shrub of much merit, and must surely take a high place among hard-wooded June-flowering plants. Eriophyllum cæspitosum seems an admirable plant for grouping in the rock garden. Light and graceful in growth, the clear yellow flowers and grey foliage form a pleasant contrast. Inula glandulosa variabilis is an admirable border plant, and its orange-coloured flowers stand out conspicuously anywhere. The spikes of Primula cockburniana may interest you as having been cut from plants which also flowered last year, showing that the biennial character of this remarkable species is not invariable. Anyone who will group this Primrose boldly under Solomon's Seal will have little to regret as regards a happy contrast."

Flowers from Duns.

Dr. McWatt of Morelands, Duns, N.B., sends us a remarkable lot of flowers, many of which are rarely met with in private gardens. He writes: "I am sending you a box of flowers which I hope you will find interesting. Among them are Pentstemon glaucus, Anemone polyanthiflora, Calceolaria polyrhiza, Lithospermum prostratum, L. intermedium, L. Gastonii, Erinus alpinus (mauve and white varieties), Smilacina, Arenaria montana, Achillea rupestris, Chrysobactron Hookeri, Salix lanata, Podophyllum peltata, Dianthus alpinus, Ajuga orientalis, Primula Parryii, Mimulus radicans, a plant rarely seen, although most beautiful, flowers white with violet lip; Veronica Stuartii, Phlox Laphamii, Delphinium nudicaule, D. cashmirianum, D. album, Incarvillea Delavayii, Asphodeline lutea, Asphodelus albus ramosus, Anthericum Liliago, A. plumosum, some good varieties of perennial Poppies, several sorts of Weigelas (Diervillas), including the white; Laburnum Adamii, Geums, Alliums of several species, Geraniums and a number of other things. Allium rosenbachianum has a good long stem."

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Senecio and Rose leaves diseased (*F. Lurani, Italy*).—Senecio pulcher is attacked by the rust fungus (Coliosporium senecionis). The spores germinate on other plants of various species of Senecio, including Cineraria, but later on in the year another form of spore is produced that attacks species of Pinus, mainly P. sylvestris, and forms in the spring little blisters upon the leaves. The fungus is very abundant upon Pines and upon Groundsel (Senecio vulgaris). Probably spraying the Senecio pulcher with a rose-red solution of potassium permanganate would check the spread of the disease. The Rose leaves are attacked by the rust fungus (Phragmidium subcorticatum). The present spores geminate on other Rose leaves, &c., and later darker spores are formed in black patches on the leaves, by means of which the winter is passed over. Much may be done to check the spread of the disease by collecting and destroying the attacked leaves in the autumn.

Lilium candidum for inspection (*Alan*).—The leaves are affected with the fungoid disease so disfiguring to this fine garden plant, and for which no real remedy exists. The treating of the bulbs with sulphur is calculated to have a paralysing effect upon the plant's growth, and may do harm rather than good. The only likely thing to check the development and spread of the disease is to early spray the stems and leaves with sulphide of potassium, ½oz. to two gallons of soft water, once a fortnight, taking care to wet the under-sides of the leaves. November is much too late to plant this nearly evergreen species, and the middle of August would have been much better. All you can at present do is to let them alone, and gather and burn the decaying parts. We have found planting a thin carpet of London Pride over the bulbs a good plan, and with a poor soil to grow in the disease is by no means so bad as was the case formerly. The fact that the other species named has been similarly treated and is free from disease proves nothing beyond the well-known fact that certain plants, like individuals, are more prone to disease than others.

Lupine flowers falling (*E. T., Devon*).—It would appear that the Lupines are planted in too dry a position, thus causing the flowers to fall off, but it is impossible to say definitely without seeing the plants. A good mulching just on coming into flower might help them.

Plant for name and treatment (*H. C.*).—The name of your plant is Dicentra spectabilis, most frequently found in catalogues as Dielytra spectabilis. The plant may be increased by division of the rootstock in early spring, just prior to the new growth appearing; by cuttings of the young shoots torn or cut off the rootstock, with a piece of old wood attached; and by root-cuttings inserted in pots in a cool greenhouse from November to January, both inclusive. Later on we may give a short article dealing with this latter methed of increasing plants, which may be helpful to you.

THE GREENHOUSE.

Camellias unsatisfactory (*H. Brown*).—It is, of course, impossible to indicate with any degree of confidence the reason of the Camellias behaving in such an unsatisfactory way, but we may point out that a frequent cause of the buds dropping is dryness at the roots. This is especially the case with plants grown in tubs, for the ball of earth is apt to get dry in the centre, and it is then difficult to get it thoroughly saturated. With regard to your queries it would, of course, have been better had the tubs been slightly raised from the floor to ensure thorough drainage. Next, the journey of fourteen miles on a wet day is not at all likely to upset them in any way. They should be kept in the conservatory and freely syringed in order to ensure good growth, and when the new shoots begin to get firm, the plants may be stood out of doors or allowed to remain in the conservatory, whichever you prefer. In either case they must remain in the tubs.

Gloxinias and mealy bug (*Constant Reader*).—The Gloxinia sent must have been close to some badly infested plant, for on it we found mealy bug, scale, thrips and traces of that little insect popularly termed Begonia mite, which gives much trouble in the case of many plants. If all your plants are like this, the only thing you can do is to vaporise frequently with one of the many preparations of nicotine now on the market. Even then you are not likely to meet with any great measure of success this season, but you may obtain good tubers for another year. We should advise you to free the plants from insect pests as thoroughly as possible, keep them watered and encourage growth. Then by the end of August they will in all probability begin to die down, when water must be lessened, and when totally dormant the plants may be turned out of their pots and the tubers shaken clear of the soil. Then these tubers may for the winter be stored in a shallow box of sand in the same way as Begonias are often treated. Throughout the winter they may be kept in a structure the temperature of which is from 50° to 55°. If the sand gets very dry, it may have a slight sprinkling of water occasionally. Then about the end of February the tubers may be potted in a mixture of loam, leaf-mould and sand. The better plan is to first pot the tubers into small pots, say, 3½ inches to 4 inches in diameter, and shift them into their flowering pots later on. In their earlier stages a few insects will cripple the plants for the entire season; hence the necessity for vaporising at the least sign of any pests.

Chrysanthemum buds (*T. W. W.*).—Buds of the two sorts mentioned in your letter are evolving at a very suitable period. Take up from this point the required number of shoots and retain the next series of buds when they are sufficiently developed. We advise you to pinch out the points of your Chrysanthemum shoots in every case where the buds have not yet evolved, retaining any buds that subsequently develop in August. By adopting these measures you should produce large and handsome blooms ultimately.

Foliage plant for amateur's greenhouse (*Rose*).—A good specimen of Aspidistra lurida variegata is always effective, and so is a thriving plant of the Norfolk Island Pine (Araucaria excelsa). You have also the choice of Cordyline (Dracæna) australis and Kentia belmoreana or fosteriana. These are so dissimilar that it is impossible to say which is the best of them, as so much depends upon individual fancy. All these could be obtained from any plant nursery, and your better plan will be to visit a local nurseryman and make your own choice.

ROSE GARDEN.

Deformed Rose bloom (*Miss H. B.*). This malformation is usually the result of spring frosts or very cold weather. Probably the plant was not pruned sufficiently. It is always rather against one's inclination to prune the Roses beyond the started growths, but if this is not done these early shoots get overtaken by the frosts, and the embryo flower-buds are consequently injured. Sometimes excess of manure in the soil will cause the malformation. It would certainly be advisable to remove all the deformed buds at once, cutting the shoot to the first plump-looking eye or bud just beneath the bloom-stalk. We knew of an instance last season, in your county, where a lady had a quantity of Souvenir de la Malmaison Roses that always had their first blooms deformed, but they were removed before developing, and the second crop was perfect. We think the reason that the Roses are not so perfect in your county as in the Eastern Counties is owing to the very rapid growth they make. There seems a want of solidity in the wood. Probably a good dressing of bone-meal in the autumn would correct this to some extent.

Rose beetles (*D. Morris*).—These very seldom trouble the Rose-grower after June is out. We recommend you to try Kilogrub in the soil. We think this would be exceedingly distasteful to the beetles.

Mildew on pot Roses (*Roses, Walsall*).—A very good and cheap remedy for mildew is to syringe the plants with a solution of Jeyes's Cyllin Soft Soap. Take 1lb. of the soap and boil it with twice the quantity of water, stirring till it is dissolved. This gives a syrupy liquid which will mix at once with cold water. Take then 3oz. of this liquid to one gallon of water and well syringe the plants with it, repeating at intervals of a few days.

Rose for south wall (*Adze*).—We fear you would have the same trouble as regards mildew with Mme. Jules Gravereaux as you have had with Mme. Bérard. A variety that would be much better for the position would be Mme. Alfred Carrière. This is a lovely Rose, free and hardy. As the border is somewhat dry, you must take the precaution to well water the Rose twice a week during May and June; in fact, throughout the summer it would be well to do so. Some of the wichuraiana Roses are fine for walls such as yours. Lady Gay, Hiawatha or Alberic Barbier would make a good show. By planting the last named and the first you would have an early and a late flowering variety. When growths become too dense they can always be reduced, so that each Rose is not overcrowded by the other.

FRUIT GARDEN.

Vine leaf injured (*Mrs. T. L.*).—We think your young Vine has suffered injury from the check received in being planted into the soil of the cold outside border. Evidently it has not yet formed new roots by which it can draw sustenance from the border. When it does do so—and that should be soon—its condition will probably improve. We have known results like this to follow the wrong method of planting a Vine. We presume your Vine had not started into growth at the time it was planted, and also that it had previously been grown in a pot. The proper way is to shake away the soil from the roots and thoroughly disentangle them, laying them out in the border their whole length as near as possible, covering each root carefully with new turf to the depth of 5 inches, and pressing it down firmly.

Gooseberry bushes unsatisfactory (*W. H. H.*).—The Gooseberry bushes have been attacked by the Gooseberry red spider. When the attack is first seen, and this may be very early in the year, the bushes should be sprayed with potassium sulphide solution at the rate of 1oz. to two gallons of water. The mites apparently hide in the earth and the eggs are very difficult to kill. On account of this it is often necessary to spray more than once.

Apple, Pear, Plum and Cherry trees grown in pots failing to set (*A. S.*).—In the first place, we agree with you that the means available for ventilating the house are wholly inadequate. If it is at all practicable, we advise you to double your present ventilating power, both top and bottom. Seeing that you have practically carried out the system of growing the above trees in pots which Mr. Hudson has carried out successfully for so many years, it is difficult to suggest in what particular points of culture you have failed. There are three points which occur to us as being more or less responsible; the first, in keeping the house too warm and exciting the trees into growth too soon when first placed under glass. Growers are inclined to forget that, immediately the trees are taken from their outdoor quarters and placed under glass, the temperature to them at once rises from 5° to 10° Fahr. or more, even if the ventilators are left fully open day and night, and commence at once to still further heighten that temperature by reducing the ventilation, especially at night. We maintain that it is absolutely necessary to keep the trees as cool as possible for the first fortnight or three weeks or until slight indications of growth are apparent. You say that your Peach and Fig trees in pots growing in a house facing south always bear good crops. This to us suggests the thought that possibly the wood and fruit-buds on your trees are not so well ripened as they might be, seeing that the house in which they are growing faces west. We presume that you disbud and pinch back the young growths freely through the summer, so that the trees are always well exposed to plenty of sunshine. Another point it is important to notice, especially in the case of Apples and Pears when grown in pots, is not to keep the trees under glass too long in late summer or autumn. As soon as the fruit is fully grown, the trees should be taken and their pots plunged out of doors in the sunniest and warmest spot you can find. By doing this your fruit will be far more brilliant in colour and also the wood and fruit-buds much better ripened than if kept later under glass. The fruit, of course, will have to be netted. With Plums and Cherries it is not necessary nor desirable to finish the ripening of these out of doors, but the sooner they are placed out of doors after the fruit is gathered the better. Mr. Hudson and many other successful growers of fruit trees in pots enlist the services of a hive of bees and place in the house while the trees are in bloom, with most beneficial results as regards the setting of the fruit.

MISCELLANEOUS.

Aspidistra leaves splitting (*J. J., Frome*).—Have never seen it happen naturally unless exposed to wind.

How to cook edible-podded Peas (*R. A. B.*). The pods are cooked whole and must not be allowed to get too old. To obtain the best results, the plants should be gone over every other day and the pods gathered. When large enough for use they can be broken in two readily. There should be no skin or stringy substance; even at a very early stage of growth the seeds are very prominent. They should be boiled slowly and some sugar added to the water. We have also seen them partially boiled and then braised in butter for an entrée, and they are delicious as a dressed vegetable without meat; doubtless, they may be served in a variety of ways.

Names of plants.—*Mrs. Batt.*—1, Aquilegia glandulosa; 2, Veronica gentianoides; 3, Polemonium cæruleum.——*G. T. Sewell.*—Pyrus Aria latifolia (White Beam Tree).——*Miss Wells.*—Viburnum Lantana.——*A. L. Ford.*—Saxifraga Sibthorpii, Prunus spinosa and Cotyledon bracteata.——*Y. Z.*—Sedum roseum.——*Captain E. F. Oakeley.*—Campanula glomerata.——*Dorset.*—1, Lapageria rosea; 2, Tricuspidaria lanceolata.——*F. C.*—1, Corydalis lutea; 2, Anthericum Liliago; 3, Inula glandulosa; 4, Campanula glomerata; 5, Lychnis dioica flore-pleno; 6, Erigeron speciosus; 7, Inula hirta; 8, Veronica gentianoides; 9, Senecio Doronicum; 10, Helianthemum vulgare variety; 11, Pulmonaria saccharata; 12, Lilium monadelphum szovitzianum.——*W. R.*—Seedlings of the Oriental Poppy (Papaver orientale).——*Frank Barber.*—We believe the Rose to be Charles Duval, one of the Hybrid Chinese section, and now almost extinct.——*W. Banks.*—Erigeron philadelphicus and Iris graminea.——*F. H.*—Beta Bourgaei, a form of the common Beetroot.——*A. G.*—1, Antennaria dioica; 2, Habenaria albida; 3, Polygonum viviparum.——*Bell, Bury.*—Hesperis matronalis flore-pleno.——*Miss Darbyshire.*—Veronica Teucrium dubia (V. rupestris).——*Penwarne.*—Bignonia speciosa.——*E. May.*—Saponaria ocymoides variety. The tubercles attached to the roots sent are believed to be the autumn form of the cycle to which Oak Apples belong as the summer form. They will prove of no detriment to the leaf-soil.——*Subscriber.*—Rose Gloire de Dijon.——*Barn Rocks.*—Kalmia latifolia.——*Frank Stone.*—Hyoscyamus niger (the Henbane). It is a native of this country and is usually found growing in waste places.

SOCIETIES.

WINDSOR AND ETON ROSE SOCIETY.

By gracious permission of His Majesty the King, this society held its eighteenth annual show on the 26th inst. in the beautiful grounds beneath the walls of Windsor Castle, known as the "Slopes." The weather was not all that could be desired, and although it was fine during the greater part of the day, rain fell towards evening. Notwithstanding this, a great many visitors were present, the attendance nearly approaching a record. The quality of the exhibits was quite up to the usual high standard for which the show is famed, and the competition was very keen throughout.

The class for the King's Challenge Cup (forty-eight distinct) was especially well contested, no less than eight exhibitors competing. This coveted award was won by Messrs. Frank Cant and Co., Colchester, with a superb stand of flowers remarkable for their size, colour and freshness, a truly excellent lot. Mrs. Theodore Roosevelt, Marquise Litta, Bessie Brown, Mme. Jules Gravereaux, Lohengrin, Rosomane Gravereaux, Maréchal Niel, Mildred Grant and Helen Guillot were some of the most notable. Messrs. B. R. Cant and Sons, Colchester, were a close second, Messrs. Alexander Dickson and Sons third, and Messrs. D. Prior and Son fourth.

In Class 2, for eighteen Teas or Noisettes, Mr. George Prince, Longworth, Berks, was well to the front with a beautiful stand of flowers, among which were Cleopatra, The Bride, Maréchal Niel, Maman Cochet, Mme. Jules Gravereaux, Catherine Mermet, Mrs. E. Mawley, Golden Gate and E. V. Hermanos in excellent condition; second, Mr. Henry Drew, Longworth; third, Messrs. B. R. Cant and Sons.

For twelve distinct varieties, three blooms of each, Messrs. B. R. Cant and Sons led with excellent blooms of Mildred Grant, Richmond, Dean Hole, Bessie Brown, J. B. Clark and H. Armytage Moore. Mr. Charles Turner, Slough, was a good second, and Messrs. D. Prior and Son, third.

For twelve blooms of any Hybrid Perpetual or Hybrid Tea, Messrs. D. Prior and Son were well in front with superb Dean Hole; Messrs. A. Bide and Son, Farnham, Surrey, second, with Queen of Spain; and Mr. Charles Turner, third, with Mrs. J. Laing.

In Class 5, for twelve blooms of any Tea or Noisette, Mr. George Prince led with a beautiful stand of Souvenir de S. A. Prince; Mr. Henry Drew, second, with Mme. Jules Gravereaux; and Mr. Elisha J. Hicks, third, with the same variety.

In the class for any crimson, twelve blooms, and twelve blooms of any white, Messrs. S. Bide and Sons were well in front with an excellent lot of J. B. Clark and Kaiserin A. Victoria; second, Mr. Henry Drew; third, Messrs. Frank Cant and Co.

For six distinct varieties, five blooms of each, to be shown in vases, Messrs. Alex. Dickson and Sons were first with Nita Weldon, Mildred Grant and Lady Helen Vincent in excellent condition. Mr. Charles Turner was second and Messrs. D. Prior and Son third.

AMATEURS' CLASSES.

For twenty-four blooms, distinct, the Windsor Cup was won by Mr. E. J. Holland with a splendid stand of blooms. Mildred Grant, Florence Pemberton, William Shean, Mrs. David McKee, Mrs. W. J. Grant, Bessie Brown and Mme. Melaine Soupert were superb. Second prize went to Mr. Conway Jones, and the third to the Rev. T. G. Henslow. Mr. Henslow had the best Rose in the show in this stand, a fine flower of Maréchal Niel.

For twelve distinct Teas or Noisettes, Mr. J. B. Fortescue was first with splendid examples of Mrs. E. Mawley, Medea, Mme. Jules Gravereaux and Comtesse de Nadaillac. Mr. Conway Jones was second and the third prize went to the Rev. T. G. Henslow.

For six distinct, three blooms of each, Mr. E. J. Holland was easily first with excellent William Shean, Mrs. W. J. Grant, Mildred Grant and Bessie Brown; second, Mr. G. A. Hammond; and third, Mr. Conway Jones.

For three distinct, five blooms of each, to be shown in vases, Mr. G. A. Hammond was a good first, Mr. Conway Jones second and Lady Wilmot third.

Twelve bunches of decorative, distinct: Here Mr. Conway Jones was leading with a splendid exhibit, among which were Claire Jacquier, Papillon, Aglaia, W. H. Richardson, Isabella Sprunt and Gustave Regis in good form. Second prize went to Mr. J. Curnock Dawley and third to Mr. Marcus Dimsdale.

For eighteen blooms, distinct, Mr. J. B. Fortescue was easily first with splendid blooms. Mr. R. E. West was second and Mr. Colin Romaine third.

For twelve blooms, distinct, Dr. Lamplough was a good first and the Rev. J. B. Shackle second.

In a similar class, open to amateurs growing less than 1,000 plants, including Teas and Noisettes, Mr. Lewis J. Pawle, Harrow, was well to the front with splendid examples of Mildred Grant, Bessie Brown, Mme. Jules Gravereaux, W. J. Grant and William Shean. Second prize was won by Mr. A. C. Twince and third by Dr. Lamplough.

For the Islet Challenge Cup, for local exhibitors only, twenty-four blooms, distinct, Mr. J. B. Fortescue was first with a beautiful lot of even, fresh flowers. Mrs. Theodore Roosevelt, J. B. Clark, Mrs. Harold Brocklebank, William Shean and Bessie Brown were in excellent form. Second, Mr. Colin Romaine.

For Mrs. Bevil Fortescue's challenge cup, eighteen blooms, Teas or Hybrid Teas, distinct, the Rev. J. B. Shackle was first, Mr. Ernest G. Mocatta second and Mr. E. F. Brown third.

For nine Teas or Noisettes, distinct, the Rev. J. B. Shackle was again to the fore, Miss Langworthy and Mr. E. F. Brown following in the order named.

For six single blooms of any Hybrid Perpetual or Hybrid Teas, Mr. E. F. Brown was first with splendid examples of Mildred Grant; Mr. E. G. Mocatta was second with Bessie Brown and Mr. Colin Romaine third.

In the class for six single blooms of any Tea or Noisette, the Rev. J. B. Shackle led with excellent Mme. Jules Gravereaux; Mr. E. G. Mocatta followed with the same variety, and Mr. J. B. Fortescue was placed third.

For Lady Evelyn Mason's cup, offered for six bunches of decorative Roses, Mr. J. B. Fortescue was easily first with an excellent exhibit, Mme. Alfred Carrière, Mme. Abel Chatenay, Mme. Pernet-Ducher, Dawn and Reine Olga de Wurtemburg being extra good; second, Mr. Ernest Mocatta; and third, Mr. Colin Romaine.

For twelve blooms, distinct, Mr. E. F. Brown was first with a beautiful stand of bloom. In this stand Bessie Brown was voted the best Hybrid Tea in the local classes. Mr. H. Giford was second and the Rev. H. S. Arkwright third.

For six Teas or Noisettes, distinct, Mr. R. House was a good first, Mr. E. F. Brown second and the Rev. H. Tower third.

There was some very keen rivalry for the decorated dinner-tables. Mrs. Maltby won the first prize with a beautifully arranged table of Sweet Peas, Gypsophila, Asparagus plumosus, A. Sprengeri and Grasses; second, Mrs. Fowler; third, Mrs. Shackle.

For the Marchioness of Normandy's cup, for a group of plants arranged in a half-circle 12 feet by 6 feet, Mr. F. Ricardo was easily first with a tastefully arranged group and Mr. A. H. Benson second.

For a smaller group, Mrs. Moss Cockle was first for a very effective arrangement of Carnations, Dracænas, Schizanthuses, Oncidiums and Cypripediums. Captain Farwell was second.

Mr. J. B. Fortescue was first for six bunches of herbaceous perennials, and Mr. F. Ricardo was first for Carnations.

NON-COMPETITIVE GROUPS.

The nursery exhibits were not so numerous as usual. Messrs. T. S. Ware, Limited, Feltham, had a splendid stand of herbaceous flowers; Mr. H. W. Caister, Slough, Sweet Peas and Nectarines; Messrs. Tit and Son, Windsor, floral decorations; Mr. Charles Turner, Slough, herbaceous flowers and Carnations; Messrs. George Jackman and Son, Woking, Roses and herbaceous flowers; Messrs. James Veitch and Sons, Roses, herbaceous flowers, Ixias and Pæonies; and Messrs. G. and A. Clark, Limited, Dover, herbaceous flowers and Sweet Peas.

The classes for fruit and vegetables were fairly well filled, and there were some excellent exhibits, especially in the vegetable classes. Thanks to the energy of Mr. Burt, the hon. secretary, the arrangements were excellently carried out, and if the weather had been more propitious there is no doubt that the attendance would have been a record one.

REDHILL AND REIGATE HORTICULTURAL SOCIETY.

On Tuesday, May 18, the members paid a visit to Gatton Park by the kind invitation of their president (Sir Jeremiah Colman). This was the first meeting of the summer session. After tea, Sir Jeremiah Colman said he was very pleased to welcome the association to Gatton once again, and sincerely hoped to see the members there many times more in the years to come. Mr. Bound proposed a vote of thanks to Sir Jeremiah and Lady Colman, seconded by Mr. Weeks. The visit was full of interest and terminated all too soon, the company being loud in their praises of the geniality and courtesy of Mr. Collier (the head-gardener) and his able assistants, to whom the very hearty thanks of the party were accorded.

At the invitation of Mr. H. P. Brandt the members paid a visit to Capenor, Nutfield, on Tuesday, June 15. The company, numbering about 150, were met at the gates by Mr. T. Heron, the head-gardener, who conducted them to the terrace, where a sumptuous tea was served. Mr. W. P. Bound (the chairman of the association) voiced the thanks of the visitors to Mr. and Mrs. Brandt for their hospitality, and also thanked Mr. Heron for the trouble he had taken on behalf of the society. Mr. Heron, on behalf of Mr. Brandt and himself, thanked the visitors for the vote; and a tour of inspection was then made of the beautiful gardens. After a quiet stroll through the park the company started for home, having thoroughly enjoyed the visit.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

"THE GARDEN" FLOWER SHOW.

IMPORTANT NOTICE.

WE wish to draw the attention of all our readers to the entry forms for our forthcoming flower show, which appear in our advertisement pages this week. As most of our readers will remember, this show is to be held at the Royal Horticultural Society's Hall, Vincent Square, Westminster, London, on the 28th inst., when £100 will be offered in prizes, as well as one gold and two silver medals. We believe that this show will be an advance on that held last year, as already there are indications of a large number of readers exhibiting. In addition to the judges mentioned some time ago, we have pleasure in announcing that we have secured the services of Miss Philbrick of Halstead and Mr. Charles Foster, late horticultural superintendent at the University College, Reading.

As there are several points that do not appear to be quite clear in the schedule, they are dealt with below, so as not to cause any unnecessary trouble to those who intend to exhibit. Exhibits will be received at the hall after 5 p.m. on the evening of the 27th inst., and, as stated on the entry forms, all exhibits must be ready for the judges at 11.30 a.m. on the morning of the show. The hall will be opened to exhibiters at 6 a.m. on the morning of the show, and, of course, those who so desire may stage their exhibits the night before.

All vases and dishes are provided, excepting those used for table decorations, and those exhibiting the latter must provide their cloths, or whatever is necessary, bare tables only being provided, the approximate size of which is stated in the schedule.

One set of coupons only is needed from each exhibitor, and this will entitle him or her to enter in any or all of the classes. The exhibition will be open to the public, free of charge, from 1.30 p.m. till 6 p.m., and no exhibits must be removed until the close of the show.

We appeal to all our readers to do their utmost to exhibit at this show, and thus prove to the public generally what they are capable of doing in the way of cultivation of flowers, fruits and vegetables.

All exhibits that are not taken away by the exhibitors will be sent to a London hospital; and all coupons must be sent with entry forms, and not with the exhibits as previously stated in the schedule.

We trust that all our readers who intend exhibiting will kindly fill in the entry forms and return them to us as early as possible, and not wait until the last day for sending them in. This will help us considerably.

A ROSE SHOW IN THE ISLE OF WIGHT.

THE inhabitants of Newport in the Isle of Wight have always observed June 28, the Coronation Day of the late Queen Victoria, as a holiday; and although this day is not the King's Coronation Day, yet, in grateful remembrance of the late Queen, they still observe the day as a holiday, shut up all their shops and disport themselves wherever their fancy takes them. One of the places to which most of the inhabitants go on this day is the annual Rose show of the Isle of Wight Rose Society, which was held this year in the beautiful grounds of Belleeroft, about a mile out of Newport, by the kind permission of Mrs. Russell Cooke, whose charming house was built and decorated by the well-known brothers Adam. The weather was all that could be desired from a visitor's point of view, although perhaps rather hot for an exhibitor's Roses, and in this respect had a great advantage over the Ryde Rose show, held the previous week in a downpour of rain.

Although every facility was given by the committee to exhibitors in the way of spacious tents and ample room for the boxes, yet the competition could not be described as good, there being only two exhibitors in the open classes, so that, at any rate in this division, the judges' task was not a hard one, Messrs. Prince and Hicks dividing the prizes.

In the open class for twelve Roses of one variety there were two very good boxes, one of Richmond and the other of Mme. Jules Gravereaux. The colour of the former was almost startling in its brilliancy, and from other specimens exhibited this Rose is destined to play a leading part in future exhibitions, as it does not seem to mind the heat. The blooms of Mme. Jules Gravereaux were very fine; but this is a Rose that is easily affected by the rough wet weather we have had lately, and consequently they were not in quite such a good condition as those of Richmond, yet on account of their shape and solidity the judges awarded an equal first to them.

In the classes open to all amateurs there was only one entry in each of the two classes. This was unfortunate, as the society offered three prizes in each class. Perhaps the show being held on a Monday prevented any mainlanders coming, especially as the Southampton show was the next day.

In the Isle of Wight classes, open to members of the society only, the competition was better, Mrs. Murray securing the greater number of prizes. She showed six beautiful blooms of Lady Ashtown. In the other classes there was a bloom of Captain Hayward which will live in my memory as this Rose at its best, the colour and shape being perfect. I think it was exhibited by Mrs. Mainwaring, and why the medal for the best Rose was not awarded to it I cannot say.

After the visitors had seen the Roses they were entertained by sports, judging children with hoops decorated with flowers, and the strains of a military band, and had a thoroughly enjoyable day. J. R.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

*** *The dates given below are those supplied by the respective Secretaries.*

July 13.—Wolverhampton Floral Fete (three days); National Sweet Pea Society's Provincial Show at Saltaire.

July 14.—National Rose Society's Provincial Show at Luton.

July 15.—West of Scotland Rosarians Society's Show.

July 16.—National Sweet Pea Society's Outing to Reading.

July 17.—National Sweet Pea Society's Outing to Coggeshall.

July 28.—THE GARDEN Flower Show, Horticultural Hall, Vincent Square, Westminster. Admission free.

National Sweet Pea Society's outings.—The outing of the above society to Kelvedon, Witham and Coggeshall, which had been arranged for July 9, has been postponed till July 17.

A flower show in Bedford Park.—A delightful little flower show was to be seen in the Club Room of Bedford Park on Saturday afternoon last. Those who live in this first garden city for the most part appreciate this display of flowers, and the exhibits were excellent. Excursions are arranged to various gardens during the summer. The hon. secretary is Mr. Robert Read, Camelot, South Parade, in this district.

The National Rose Society's show.—An enjoyable day was spent by rosarians on Friday, July 2, in the Royal Botanic Gardens at Regent's Park, the occasion of the annual exhibition of the National Rose Society. Unfortunately, the display of Roses was poor, owing to the wretched weather of June; but we look forward to the exhibition at Luton on July 14, as then probably the competition will be more exciting. A report of the show is given in a special supplement. Her Majesty the Queen, patroness of the society, visited the exhibition and was received by the president, the Rev. F. Page-Roberts, who was accompanied by Miss Willmott, V.M.H. Hearty thanks are due to the hon. secretary, Mr. E. Mawley, Mr. G. W. Cook, Mr. H. E. Molyneux and all who helped to make the National Rose Society's show such a success. Nor must one forget Mr. E. F. Hawes, superintendent of the Botanic Gardens, who works so hard for the gardens and horticulture generally.

An amateur's interesting garden.—One of the most interesting and instructive gardens that we have had the pleasure of inspecting for some time past is that of Mr. G. Hobday, Havering Road, Romford. Formed some fifteen years ago by Mr. Hobday himself, this garden of about two acres now teems with plant-life in every form, more particularly high-class fruits and vegetables, several fine groups of the latter having at various times been staged before the Royal Horticultural Society at Vincent Square. Hobday's Giant Rhubarb is probably known to many of our readers, and here, in its home, we saw a magnificent stock of it. Pea Essex Wonder is another good vegetable raised by Mr. Hobday, and about half an acre of this variety growing in an adjoining field at the time of our visit looked in first-class condition. Then we saw a Broad Bean that will prove very welcome when Mr. Hobday decides to put it on the market; it is a long-podded variety, possessing the flavour of the old Green Windsor and has remarkable cropping qualities, eight to ten pods on a stem being the usual number. Gooseberry bushes were simply ropes of large fruit, a fact attributed by the owner to the placing of bees among the bushes when in flower. Strawberries, Peaches in the open and carrying good crops of promising fruit; Grapes Black Hamburgh and Buckland Sweetwater; Pears, Apples, Nuts and, indeed, all kinds of fruit were cropping in profusion. Nor must we forget the Onions, of which Mr. Hobday has, in the past, grown some splendid examples; the beds that we saw were full of promise, the plants looking remarkably healthy. As an example of what can be done by an amateur who has a deeply seated love of gardening this garden is probably without a parallel, and we feel sure that the council of the Royal Horticultural Society did the right thing when they elected Mr. Hobday to the fruit and vegetable committee. Mr. Hobday is also an enthusiastic member of the newly formed National Vegetable Society's executive committee.

Messrs. Stuart Low and Co.'s inauguration supper.—On the 29th ult., in the St. Mark's Institute, Bush Hill Park, the staff and friends of the newly formed firm of Messrs. Stuart Low and Co. were entertained to supper by the firm, and a most enjoyable evening was spent, about 200 being present. After the supper the loyal toast was drunk with musical honours, and Mr. W. Watson, curator of the Royal Gardens, Kew, and who was some thirty years ago employed at the Clapton Nurseries of the late Hugh Low and Co., proposed "Success to the New Firm." In doing so he sketched the history of the late firm for the past eighty years, and referred to the influence it had exercised not only on ordinary horticulture, but on botanical science. He also mentioned the interesting fact that several employés of the late firm, whom they used to term "old" thirty years ago, were still with the present firm. Mr. Harry Barnard, the well-known traveller of the late firm, and who is now acting in the same capacity for Messrs. Stuart Low and Co., made a most humorous yet interesting speech, referring to the many red-letter days of the old firm. Then, amid great enthusiasm, he presented to Mr. Stuart Low, on behalf of the employés, a handsome silver cup as a memento of the occasion and as a token of the esteem in which he was held by them all. Mr. Low, in responding, said they had a big task before them, but with such an enthusiastic staff he felt sure the future would be a bright one. An interesting feature of the evening was the presentation by Mr. Low of a handsomely mounted walking-stick to Mr. George Mayes, an employé who had been with the late firm for fifty years, and a purse of gold was also presented to this veteran on behalf of his fellow-workmen and heads of departments. Mr. L. J. Cook next proposed the health of the "Visitors and the Horticultural Press," on behalf of whom Mr. F. W. Harvey responded. Both vocal and instrumental music was well rendered by members and friends of the staff.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Novel flower-vases.—A very pretty decoration for a room can be found in the brown glazed jars and pots one buys cream in at the dairies. Filled with La France Roses and their own beautiful leaves they look charming, the delicate pink of these lovely Roses showing against the deep brown of the jars with excellent effect.—SHAMROCK.

Culture of Rosemary.—In your issue of June 12, page 292, there is an interesting article on Rosmarinus officinalis which may, I fear, tend to frighten some amateurs situated as I am from trying to grow this charming plant, and which differs so much from my own experience that the following notes may be of interest. Notwithstanding that my soil is heavy Sussex clay, practically destitute of lime, and the position fully exposed to south-west gales from the sea (about a mile distant), I find Rosemary easy to propagate by cuttings, either with or without a heel. These are preferably taken towards the end of August or September when well ripened, and should not be less than 9 inches long, a good 6 inches being inserted in the ground, special care being taken to firm the earth round them after any severe frost. The plants grow freely in this heavy soil, making bushes 3 feet to 4 feet high in their third year, and some old plants attaining the height of 8 feet. They are specially useful, as they thrive in the windy and exposed positions, and thus fill gaps where few other things will grow.—F. P. H.

Carpenteria californica in East Sussex.—It may interest some of your readers to know that in this part (East Sussex) Carpenteria californica is now (June 28) in full bloom, its masses of pure white flowers with their bright yellow stamens and sweet scent making it one of the most beautiful sights in the garden, especially when in juxtaposition with the red Pomegranate, which is also blooming, though more sparsely than usual, probably owing to the cold spring. Crinodendron hookerianum (Tricuspidaria), with its bright red flowers, has nearly finished its first blooming, while to take its place the elegant red-mauve flowers of Indigofera gerardiana are showing up among its feathery foliage, making a becoming contrast to the close, vivid green leaves of Schizophragma hydrangeoides (Hydrangea petiolaris) with its frothy masses of creamy blossoms.—F. P. H.

The Tree Mallows.—With reference to the article on the Tree Mallows in THE GARDEN on pages 314 and 315, I think you may like to know my experience with Lavatera arborea. When spending a few days in Jersey in 1906, I noticed a low-growing flowering shrub on the headland known as La Corbière, which is exposed on three sides to the sea. As I admired the Mallow, which was then partly in flower and partly in seed, I took a few of the "cheeses," intending to sow the seed in my garden. As it was growing on La Corbière its height was about a foot, but when I came to plant it (after raising in a pot in the greenhouse) in my garden it grew to about 2 feet the first year (1907) without flowering. The following year (1908), having apparently died down in winter, it shot up rapidly in spring, and by August was nearly 12 feet in height, bearing a profusion of its beautiful flowers. This year it promises to be as tall as it was last year and has formed a handsome shrubby bush. I am looking forward to seeing the beautiful rose-coloured flowers, with purple veining and purple centres, which attracted my attention when I first saw the plant in Jersey. It suffers, unfortunately, from attacks of the rust fungus, which is so deadly to Hollyhocks; and while on this point I should be obliged if you could tell me how to ward off the attacks of rust, which ruined most of my Hollyhocks last year. I ought also to mention that the plant I am speaking of is the only one of four seedlings which flowered; the other three died off after the first year. It is in front of a wall facing south, and protected on the east and west by greenhouses. This may account for its having established itself so well, while the others, planted in a more exposed position, failed. Still, one would expect seeds from a plant growing on such a windswept headland as La Corbière to produce plants able to stand any exposure. But I can assign no other reason for the failure of the other three seedling plants.—GEORGE RANKING (Lieut.-Colonel), *Oxford.*

Ants and Roses.—I was interested to see the notes of your correspondents on pages 299

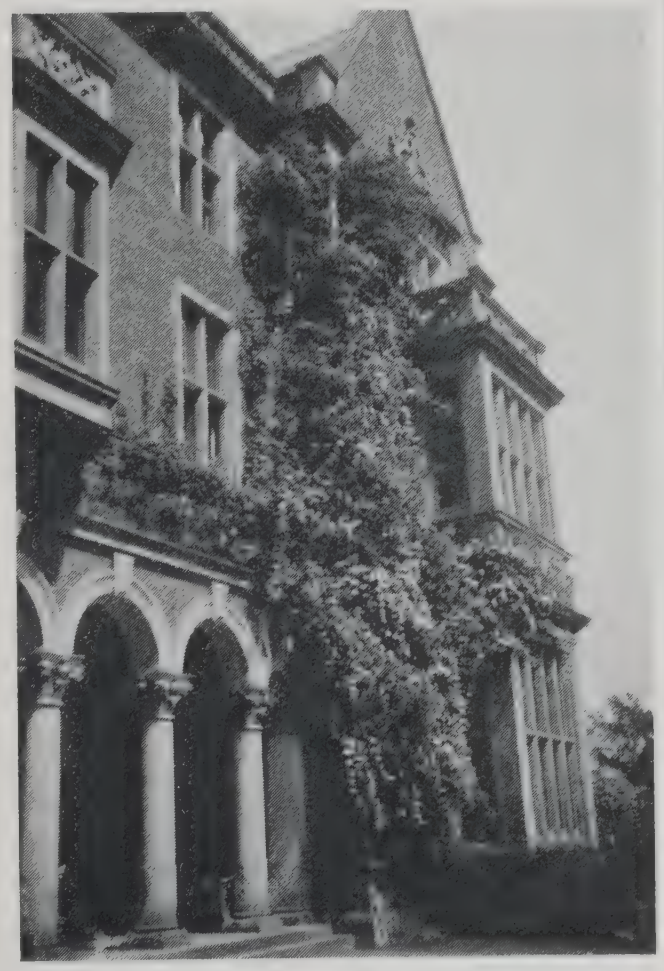
ad 311 with regard to ants, which are a real lague in my garden, though I have not satisfied yself that they do any appeciable harm to oses or to the above-ground parts of any plants, or do I believe that they bring green fly. Where green fly exists ants will certainly congre- ate, but I think that is all. The damage to the ose buds is, I have always imagined, caused by aterpillars; this results in an exudation of sap, hich attracts the ants noticed by your corre- pondent. I have seen ants in great quantities n the unopened buds of several species besides oses, and have observed no damage caused by hem. On the other hand, after catching a aterpillar which has bored through a calyx tube, have afterwards found the wound covered ith ants. *Apropos* of these insects, a great eal of nonsense (if you will excuse the strong xpression) is written about the ease with which hey can be exterminated. You have only to ind their nest, we are told, then put a spade nto it and pour in boiling water or paraffin. We re never told what to do with the plants in the neantime. I often wonder whether the people who write thus have ever seen an ant-infested arden. Here they establish themselves under he choicest plants, chiefly on the rockeries, but lso in the open border. They extract all the soil rom the roots and pile it on to the crowns, and n addition they peel the epidermis from the ootlets, which, of course, kills the plants. How s the boiling water or paraffin cure to be applied? arge numbers, both of the insects and their upæ, can be collected by inverting a flower-pot ver the nest and shaking the contents into oiling water. This gives one the satisfaction f scoring off them, but it is not a cure. Vaporite s very effective in making them move on a few nches, and if they are noticed in time will ave the plants from destruction; but I know of o cure. I have both the small red and the omewhat larger black sort. Both are destruc- ive, but the red sort is the worst. Next to aterpillars they are my worst garden plague.—A. H. WOLLEY-DOD, *Walton-on-Thames.*

——If your correspondents who are troubled with ants will do as follows they will soon be rid of these troublesome pests: Roses—Pick off damaged buds, lightly fork the ground round the tree, then with a hose or watering-pot thoroughly saturate the ground with water and puddle it well. For Carrots, &c.—Dutch hoe the ground, then treat it the same; the saturated soil sticks to the ants and they soon perish. Also find the nests and water them well; ants are never in damp places. Of course, the ground must be hoed the next day or so to break the crust that will form.—THOMAS DAVIES.

A suggestion for the National Rose Society.—Of course, it is too late now to make any alteration in the schedule, but as many rosarians will soon meet I throw out a suggestion which I think would tend to make the Metropolitan show still more useful to its visitors. There is an increasing demand for Roses suitable for bedding and massing, and the general public want to know the best sorts. They cannot judge of the habit of a Rose from the bunches usually put up as garden or decora- tive Roses, for these are capable of being "faked" as much as the show bloom. What I should like to see would be large, oval baskets, fitted with suitable tubes holding plenty of water and provided by the society, so that exhibitors could bring up a good mass of a sort with all their lovely buds intact and their delightful foliage preserved, and make a display of what certain Roses are capable of doing in the way of decorating our gardens. This would be quite feasible, and the baskets could be arranged so that the ugly gaps now often visible on the benches would be filled, or they could be arranged altogether on a somewhat lower table. Substantial prizes could be offered for the best basket of each colour, leaving the variety to the discretion of the exhibitor. I want to see this national show with less of the box element and less of the Bamboo frame, generally a most ugly mode for displaying the Rose, but with something that would be a nearer approach to a natural style. There has been a great advance in the show of late years with the fine groups, but I think the society might go one better, and if the day proved a hot one, not allow the show to be so sadly marred by having to display the blooms in a tropical atmosphere, but try and arrange for a double covering to the tents, such as is done on our great steamers, or let the sides be taken away early on the morning of the show before the mischief caused by the stifling atmo- sphere is done.—P.

The Banksian Rose at Hemsted Park.—The accompanying illustration of a Banksian Rose growing at Hemsted Park is from a photograph kindly sent to us by the Earl of Cranbrook, and plainly demonstrates to what extent this beautiful Rose will develop when it once becomes established.

Herbaceous Pæonies.—The Pæony is the garden flower of the moment, and there is



THE BANKSIAN ROSE AT HEMSTED PARK, CRANBROOK.

nothing to compare with it among herbaceous plants for its noble form, stately grandeur or intense or soft and delicate colouring. In either of these there is enough of variety to satisfy even the most fastidious of flower-lovers, while just as varied and fascinating are they in single, semi-double or full-double flowered varieties. In the cut state, too, the flowers are exceedingly beautiful, and if secured in the early bud stage and when the petals are nearly or quite dry, the blossoms last a long time in perfection. Many of them, too, are distinctly sweet-scented, and in this way, while adding conspicuous beauty to drawing-room or entrance-hall, afford much pleasure by a fragrance that is both pleasing and enjoyable. At a recent meeting of the Royal Horticultural Society I saw some hundreds of the flowers of these Pæonies. Of those seen I must mention Philomele, semi-double, soft rose, with a large tuft of petaloid anthers in the centre; a superb flower for all purposes and very hand- some under artificial light. Kama No. Rego- rome, a semi-double flower of Japanese origin; rich crimson, golden anthers in the centre. Mar- guerite Gerard, soft satin pink, full-double. Eugène Verdier, deep pink, full-double; a delightful flower. Caroline Allain, soft pink guard petals, inner petals cream, centre petals soft pink; a very handsome flower. Mme. Bernhardt, pale flesh pink. Duchesse de Nemours, a superb full-double of creamy tone throughout, the outer petals being broad and roundly formed. Victor Hugo is of purplish crimson. Prolifera superba is deep rose with salmon and buff centre. Festiva maxima, one of the largest and earliest, is pure white, splashed at centre with crimson. Neva is rose and very full. Mons. Charles Leveque is a satin pink flower that is very charming and full-petalled. These are but a selection of the best, and they fully represent the most useful shades of colour found in these handsome midsummer border flowers.—E. H. JENKINS.

Autumn sowing of Sweet Peas. I was interested to see your remarks on the Sweet Peas of Miss Hemus. I visited this lady's garden in Whit Week and saw the blooms, and they were certainly very fine. The gardens are not at all sheltered; in fact, rather open. It was rather interesting, for I understand that when the blooms were shown at the Temple Show, many visitors not over-kindly expressed doubts as to the flowers having been grown in the open. May I suggest that you encourage your readers to try the plan of autumn sowing. The system is likely to call forth, in some districts, the ingenuity of the growers, and so many gardeners are not imbued with the experi- mental spirit.—CHARLES W. GAMBLE.

Bryony in the garden.—The appreciative notes of Mrs. E. Curgwen on the ornamental character of the two Bryonies (THE GARDEN, June 12, page 288), strikes a keynote upon which many harmonies might be built with the flowers of our native flora, with or without drawing upon those cultivated in our gardens. The capabilities of our wild flora are frequently illustrated in country flower shows by bouquets collected by children from the fields and hedge- rows. It is often remarked that if these flowers were cultivated rather than being wild, they would receive a greater amount of attention and admira- tion; but many of our native plants compare most favourably with those we pay so much atten- tion to in the garden, and if not used solely for house or table decoration they might well find a place for mixing with others that cost more. Quite recently I saw a very happy combination of wild and cultivated flowers on the altar of a little village church between Budleigh Salterton and Sidmouth. As it was necessary that the flowers should be all white, the bulk of them were Narcissi; but to give lightness to the whole a free use was made of the spreading umbels of the Cow Parsnip or Cow Parsley, as it is sometimes called (Heracleum Sphondylium), which is now, and has been for some time past, a prominent feature in the hedge- banks in this neighbourhood. It is sometimes said that wild flowers are not suited for church decoration, especially for that of the altar; but Nature's own productions, as distinct from those of the expert cultivator, would seem to have a prior claim for such a use, so long as a pleasing effect is produced; at any rate, many of them might be frequently introduced in combination with the more costly flowers, not for the sake of cheapness but for effect. With regard to the introduction into the garden of such plants as the Bryonies and the "lovely white Convolvulus," which Mrs. Curgwen would advocate, I think most people with gardens, especially small ones, would be very shy of introducing such plants, and would be quite content to gather the flowers from the hedgerows. Nothing can be more beautiful or ornamental than the Goose Grass or Cleavers (Galium Aparine), which covers the hedges with masses of white festoons at this season of the year, but, like the white Convolvulus, it is a terrible pest in a garden.—JOHN R. JACKSON, *Lympstone, Devon.*

THE KITCHEN GARDEN.

PARSLEY PROMOTED.

RECENTLY I had occasion to draw attention to the extraordinarily narrow way in which the kitchen garden is mostly dealt with. So few have made the discovery that here are to be found many most decorative plants whose sphere is generally confined rigidly to providing material for the dinner-table. The value of the Potato flower as an instance of beauty is wholly overlooked. A well-grown truss of this, with its eleven starry blossoms of delicate lilacs, greens and whites, has a peculiar charm when judiciously treated, not as a vegetable at all in stiff rows, but as a flower planted in clumps.

I am, however, now concerned with a less showy, but still uncommonly useful, plant little known as cut foliage—the very utilitarian and aggressively inevitable Parsley, which most cooks sin in employing with a very heavy hand on all possible and impossible occasions. Now I maintain that Parsley leaves are extremely attractive in themselves, especially those varieties which do not curl up to excess, and therefore do not make the best culinary decoration.

Homburg Parsley (Apium petroselinum jæsiformis) can be a really decorative thing. The plant varies extremely, the prettiest form being that which bears leaves that are quite spread, not closely packed and curled. These, when at their best, bear a very superficial reminder of Aquilegia leaves, of whose use and beauty everyone is aware. The stalks are long and firm; the side-stalks and leaves are set at a good angle and at such a distance apart that the whole has a light, graceful effect. There is considerable variation in the older and the young, small leaves, both in colours and texture, giving a choice for admixture with different classes of flowers in a cut state, and as foliage in water it is most gratifying, for it has the advantage of lasting sometimes a week or more. The best for the purpose are those leaves which have four opposite pairs of side-stalks narrowing up to the tip, which ends in a single leaflet.

I think no one who overthrows convention and follows me in the use of this plant as a cut-foliage plant will ever reproach me with having made misleading eulogy. E. CURGWEN.

PEA SUTTON'S EARLY GIANT.

FEW of the newer Peas which have been introduced of late years have become so popular as the one illustrated, viz., Sutton's Early Giant, which was introduced a few years ago and specially recommended for glass culture for its size and excellent quality. It has found much favour with growers, and when we contrast this splendid Pea with the small, poor, white, round-seeded Peas grown so largely some thirty or forty years ago, it will be seen what a great improvement has been made in this vegetable, as we get a pod equal to the best summer Marrowfats, and it is a splendid cropper. I have found this an ideal Pea to grow under glass, either in pots or sown in frames, and its good habit and heavy crop make it doubly valuable.

As regards glass culture this note is not now applicable, but in many gardens an early Pea is sown for late supplies; I mean seed is sown in July, and for this purpose Sutton's Early Giant is most valuable. I have sown this variety in early August and had good crops in a favourable autumn well into November, and for this work I do not think there is a more profitable variety. This Pea does not often exceed 3½ feet, and may, in consequence, be grown much closer together than the taller varieties. At the same time avoid crowding, as in the late autumn the days are shorter, and the more light the plants receive the better.

A word as to soils and earliest crops for autumn supplies. In poor, gravelly soil the land must be well enriched with manure, and I always found it advisable in such soil to sow in deep drills or shallow trenches, as then moisture was readily retained. Of course, in a good, deeply dug loamy soil ordinary culture will give a good return.

As an early variety to sow in the open or on a sheltered border Early Giant is most reliable. From seed sown on a warm, sloping border in February I have frequently had good pods in May, and it soon matures when the pods are formed. G. WYTHES.

PEA SUTTON'S EARLY GIANT.

THE FRUIT GARDEN.

FRUIT NOTES.

LAYERING STRAWBERRIES.—In my last notes some general hints were given as to the propagation of this important fruit, and it is now purposed to glance briefly at the three systems in use for doing so. Actually it is not a question of three systems as much as it is of variations of the one, since whether we layer down into the alleys, small pots or squares of turf, we in each instance use the runners on the strigs. Taking them in the order noted, nothing can be said against the working down into the alleys, provided that some new soil is incorporated with the old and that water is given afterwards according to necessity to keep the soil always moist and thus encourage rapid rooting. At least a goodly proportion of whatever is added should be either flaky leaf-mould or manure, as to this the small roots will cling with considerable tenacity, and enable the grower to lift the plants with a ball of soil attached to the roots when the time for transference to permanent quarters comes along. This is of paramount importance, as will be seen at once, when we remember that Strawberries are planted when the soil is at its hottest and driest in the summer. The second method, in which small pots play an essential part, is adopted by those who want especially fine plants for culture in pots, and by others who produce plants for sale. The pots are filled with an open compost, and then plunged practically to their rims in the alleys between the rows of plants, and on the surface of the soil in each one a runner is placed and kept in position with a small stone or a peg, according to fancy. As long as repotting can be done immediately the young plants are ready this answers admirably; but should that operation have to be delayed until the roots mat hard round the cool, porous sides of the pots, there will be a check, since the roots will have to have time to soften again before they will recommence the active work of food imbibition. Squares of turf are plunged, grass side downwards, in a similar manner to small pots and with precisely the same object—the reduction of the frequency of watering. The runners take very kindly to them, and the grower has the advantage of knowing that if he cannot lift and pot at just the correct moment, nothing further can go astray than that the roots will pass beyond the sides of the turf and get into the surrounding soil; it is an excellent method, and might be far more generally adopted by those who require especially fine plants and have the necessary turf ready. In all cases the soil must be kept moist, but must not, on any account, be made sodden by excessive supplies.

SUMMER PRUNING.—If this work has not been put in hand among the cordon Currants and Gooseberries, there must not be any further delay, or the advantages which follow upon it will be substantially reduced. All the new shoots, with the exception of the leader, should be reduced to six leaves by pinching or cutting, according to hardness of the growths. Subsequently the buds beneath will start, and it is necessary that these shall be promptly pinched to two leaves as made, or the plants will become thickets of useless spray. The benefits are that light and air are admitted to the swelling crops and to the buds at the base of the spurs, so that at the same time as the fruits of the present season improve materially, the foundation for a good crop in the following year is being surely laid. If the work is followed up closely it will not make serious demands upon the grower's time, and the returns secured certainly justify the steps that are taken.

INSECTS ON WALL TREES.—It is most important that the cultivator of fruit trees on walls shall keep a sharp look-out at this season of the

ear for the various insect pests which visit the lants, and do an immense amount of injury if llowed to multiply unchecked. Kill all that are een immediately and little trouble will arise. he value of forcible applications of cold water hrough a hose or a garden engine must never e overlooked in this matter, for they often ave the necessity of having recourse to an nsecticide. FRUIT-GROWER.

THE GREENHOUSE.

NOTES ON ORCHIDS.

LÆLIAS AND CATTLEYAS.

MANY amateurs possess a greenhouse or glass structure where they try to cultivate a miscellaneous collection of plants, only to meet with a small measure of success. Now such a house could be utilised to etter advantage by only growing a few genera, nd a continual supply of flowers can thus be ad, the quantity depending upon the size of the tructure. Where such a desire exists and Orchids are chosen, I strongly advise a selection of Lælias and Cattleyas, with some of heir best hybrids; or devote it entirely to Odontoglossums and other cool subjects. I ntend to refer to the latter section at a future late, and for the present confine my remarks to Cattleyas and the closely allied genus Lælia. 'Cattleyas are the stock flowers for the horticultural shows," wrote the late Dr. Smee in 'My Garden," a rare book published in 1872; nd where amateurs and small growers arrange xhibits at their local flower shows a few Orchids n the centre of the group give it an aristocratic ppearance and place it in the select circle at nce. Cattleyas vary slightly in size and habit; he gorgeous blossoms are produced from he apex of the pseudo-bulb; and by making a udicious selection the flowering period can be xtended over the whole year.

What to Grow.—The most popular group of Cattleyas is known as the labiata set. They esemble each other very closely regarding the hape and size of the flowers; but they appear t different seasons, and, of course, the colour aries, although mauve is predominant. One of he best in this section is C. Trianæ, which is in lower during the autumn and winter months, ollowed by C. Schröderæ, Mendelii, Mossiæ, vith its beautiful varieties Wagneri and eineckiana, Warscewiczii (gigas) sanderiana, Warneri, Rex, dowiana, aurea, hardyana and abiata. Of the two-leaved species C. bowringina and Loddigesii are usually grown, and the ormer has participated in the creation of several ybrids, which are almost indispensable for an utumn display; they embrace C. Mantinii and Mrs. J. W. Whiteley. Of the Lælias, purpurata, rispa, tenebrosa, pumila, cinnabarina and anthina are recommended. They have been reely intercrossed with the Cattleyas, and the rogeny is known as Lælio-Cattleya, of which a plendid race is in existence, such as L.-C. ominiana, callistoglossum, Fascinator and umerous others. The majority are of easy culure and may be purchased for a modest outlay.

Cultural Details.—The type of house generally et apart for Orchids is one with a span roof unning north to south, having both top and ottom ventilators and away from the shade of rees or buildings if possible, although this is ot absolutely essential when due regard is given o artificial shade. A suitable temperature is ne ranging from 65° to 70° Fahr. for the ummer and a minimum of 55° Fahr. during the inter. The maximum is always recorded at idday and the lowest point about 6 a.m. egarding light and shade, the latter will be ecessary whenever the weather is bright from Iarch to September; but this must not be overone, as Cattleyas enjoy plenty of light, but not irect sunshine. Ventilation is an important factor in Orchid culture, but attention must be paid to the direction of the wind, opening the ventilators on the opposite side to prevent a draught or a strong current of air passing over the inmates of the house. An inch or so from the top ventilators is very beneficial and holds in check the spot disease, while it renders the interior sweet and pure, which causes luxuriant growth. A moist and buoyant atmosphere (similar to that produced in the open ground after a warm shower of rain) is required, and to this end the stages and floors must be sprinkled with water several times each day, according to the season of the year. Throughout the summer a light spray overhead is useful, but from September to March it should cease and the damping down be considerably reduced.

Soil and Repotting.—For general purposes the following mixture of Osmunda fibre and peat to the extent of two-thirds and chopped sphagnum moss one-third, with enough crushed crocks and silver sand added to render the whole porous, will give good results. Repotting takes place nearly all the year round, but large specimens do not require annual disturbance at the root; in fact, if proper attention is given, every third season will be ample. The pots should be filled one-fourth of their depth with drainage and the soil pressed moderately firm, while on no account must the plant be elevated above the rim. The safest time to repot is immediately roots are seen issuing from the base of the last-made pseudo-bulb; they appear with some species at the commencement of growth, and with others near the completion of the bulb; but an observant cultivator will make no mistake in this direction. For a few weeks little direct watering is needed beyond a sprinkle with a fine-rosed water-pot whenever the surface becomes dry, but the space between the plants must be kept moist by frequent syringings. As the plants finish their growth a rest is allowed, but the pseudo-bulbs ought not to shrivel for lack of moisture at the base. SENTINEL.

ROSE BOUQUET D'OR ON THE FIRST ROSE TERRACE AT BAYMAN MANOR, CHESHAM (*See page 339.*)

THE EDITOR'S TABLE.

HYBRID VERBASCUMS FROM NUNEATON.

Mr. Frank Bouskell, Market Bosworth, Nuneaton, sends us a most interesting collection of hybrid Mulleins, which he has evidently taken considerable trouble and care in raising. He writes: "I enclose some specimens of Verbascum, which I hope will reach you in sufficient condition to see the colouring. I have been growing as many species as possible for the last seven years and have succeeded in getting some interesting forms. They may be divided into: pannosum (longifolium) hybrids—1, Pale Primrose, branching habit, 5 feet; 2, Apricot, 5 feet; 3, Pink, 5 feet; 4, Ivanhoe, 5, J. M. Burnie and 6, Caldonia, all very near to these named forms, but raised by myself, differing slightly as to foliage. These are all from pannosum as seed parent crossed with phœniceum. Haenki hybrids crossed with phœniceum, height, 3 feet—1, Orange; 2, Yellow Ochre; 3, Pink; 4, Cream; foliage Haenki, but 3 and 4 of very similar shades to 3, 4, 5 and 6 of pannosum hybrids. Phœniceum crossed with pannosum, 2 feet to 3 feet—1, Cream; 2, Apricot; 3, Copper; 4, Dark Copper; foliage phœniceum, only rather thicker. Phœniceum crossed with Weidmannii; various shades, violet and purple up to copper. The orange forms of Haenki hybrids are a new colour to me, as are forms 3 and 4. The forms 1, 2 and 3 of phœniceum crossed with pannosum hybrids are also new to me. I have also some forms of phœniceum which appear to have some Celsia cretica blood in them. As a subscriber for eight years I thought they might interest your readers. Some of the varieties were exhibited by me at Hanley last year and a few at Wolverhampton and Leicester."

ROSE FORTUNE'S YELLOW.

We thank Lady Menzies for beautiful specimens of Fortune's Yellow Rose. It is rare to hear of this variety flourishing in the open air so far north as Aberfeldy, and some details as to the position and soil in which it is growing, also mode of pruning, would be interesting to our readers.

WILD ORCHIDS FROM HANTS.

Mr. Edwin Platt, The Gardens, Borden Wood, Liphook, Hants, sends us flowers of Orchis maculata, which are most welcome. We are very pleased to find these wild beauties well looked after, as too often the roots are torn up and our choicest wild flowers thereby exterminated. Mr. Platt writes: "We are sending you a few flowers of one of our native Orchids, Orchis maculata, which is fairly common; but the delicate marking and sympathetic colouring are, we think, very charming. The gathered specimens, pretty though they may be for your Table, can, unfortunately, convey little of their lovely effect when in a mass in their native element. These were plucked by my little daughter in the meadow of a friend, and her delight was unbounded when I proposed sending them for your Table."

THE FLOWER GARDEN.

AN OLD MAN'S GARDEN.

EARLY SWEET PEAS.

I AM old enough to remember the Sweet Peas in my father's garden sixty years ago. Sweet Peas were then just Sweet Peas. A clump stood here, another there, each composed of five or six varieties of uncertain shades of white, pink and blue. Names were unknown. Now you may, if patience holds out, reckon up some 300 so-called varieties, 250 of which could well be spared. The fifty which remain are evidences of a marvellous evolution, and well merit the revolution in popular appreciation of this charming flower.

ROSE VISCOUNTESS FOLKESTONE ON THE SECOND ROSE TERRACE AT BAYMAN MANOR.
(*See page 339.*)

Though the far side of three score years and ten, I move, in this respect, with the times, and should find my garden incomplete without their delicate perfume and butterfly blossoms. I grow some early ones to precede the summer plants every year, and so begin my season in May. This year the first flower opened on May 19, and my last will probably be gathered in October. Six months of them should satisfy anyone, however enthusiastic.

My first sowing for flowers this season was made on September 29 last in 14-inch pots. These stood out of doors all the winter under the south wall of my house. In severe frost I threw a muslin or tiffany curtain over them at night, but they will stand 10° of frost without harm. I always save my own seed, adding a few tested new varieties each year. This season St. George, Evelyn Hemus and Asta Ohn Spencer are the novelties from without. I sow twenty seeds in a pot and in February thin out to ten. Each pot contains two well-contrasted varieties. The seedlings in their youngest stage are protected from the sparrows by wire-netting, afterwards by black cotton. For two seasons I have treated the seed with Nitro-Bacterine culture and given them one watering with the same when about 6 inches high. I must say that I am quite persuaded its effects are most remarkable and beneficial. I have never had such full, healthy crops, both of culinary and decorative Peas, before.

I notice that others who have tried it have sometimes seen no such effects. I cannot help thinking that this is the result of the "culture" being improperly prepared or applied. I do not think that of all the Peas sown, either in September or at the end of January, ten failed to germinate strongly. Plants from my January sowing in the open ground are now showing flower, and there is not a single blank. The most delicate varieties, such as Frank Dolby and the whites, are as strong as the rest. My large pots at the time of writing (June 14) are in magnificent form, and I send a box of blooms for your acceptance. You will find among my seedlings, some of which are fixed, some very fine varieties, notably a waved Edward VII., a waved deep rose Spencer, a beautiful waved mauve from Mrs. Hardcastle Sykes, a very ethereal white, also from Mrs. H. Sykes, a slightly tinted white from Frank Dolby, &c. Most of the varieties are throwing four flowers to a spike; and, curiously, I have had a great number of single flowers with double standards and wings this season, though there is only one calyx as usual. By the way, to go from Peas to Roses, what a grand Rose year this promises to be! Perhaps later I may, if you like, send a few notes on our queen. [Do please.—ED.]

Torquay. R. W. BEACHEY.

THE HARDY PRIMULAS.

(*Continued from page 314.*)

PRIMULA PYCNOLOBA.—From Western Szechuan, where it is found at an elevation of 4,000 to 6,000 feet in dry, warm valleys fully exposed to the sun. It is of little horticultural value. It has a tuft of leaves resembling those of P. obconica, and small yellowish flowers in a large calyx.

P. Reidii, a plant of great beauty from the Western Himalayas, is, unfortunately, difficult to manage on low elevations. It is a low-growing plant with rosettes of leaves covered with silky hairs and short stems, bearing a few lovely ivory white drooping flowers of good size. It is necessary to grow this plant in a frame, potted in porous soil, but it usually dies after flowering. It produces seeds, however, which germinate readily, but the seedlings require careful attention in the matter of shading and watering, a little neglect causing the loss of the whole batch.

P. reticulata, also from the Himalayas, is a rare plant in cultivation with heart-shaped leaves. I have not seen it in flower, having only seedlings a year old. They are doing well with similar conditions accorded to P. sikkimensis.

P. rosea.—One of the loveliest of our early flowering Primulas. It is a native of the Western Himalayas, and was first introduced from Kashmir in 1879. It is essentially a bog-loving plant, although it may also be grown successfully in a moist, shady border. One of the easiest of plants to cultivate, it is a true perennial and will last for many years, forming large tufts of numerous rosettes, covered in early spring with lovely rose-coloured flowers in umbels of six or more. Seeds are produced freely, and self-sown seedlings will spring up in suitable places, especially on the margins of water where the roots can reach it. Peaty soil suits this plant well, and the tufts may be divided after flowering and will soon make good-sized plants. There is a selected form with larger and richer coloured flowers grown under the name of P. rosea var. grandiflora. It is a most useful plant for growing in pans in the cold house, as it succeeds well when grown in a north frame during the summer months. It should be potted in a mixture of peat and loam.

P. Rusbyi is a rare tufted species coming from New Mexico. It must be grown in a frame, as it will not stand the winter outside. It has long, strap-shaped leaves and handsome rose-purple flowers.

P. sibirica.—A plant rather near P. involucrata with smooth, entire leaves, slightly undulated at the margin. The flower-stems are about 3 inches high, and bear from three to five rose-coloured flowers in April or May. It is very rare in cultivation, as P. farinosa frequently does duty for it. A bog plant, it does well in moist, spongy soil in a half-shady position. It is found widely distributed in Siberia, and is somewhat variable in habit.

P. sikkimensis.—A handsome Himalayan Primrose that extends into Western China, and is usually found in very moist situations. Although it always dies after flowering, this species is well worth growing on account of its elegant habit and free-flowering qualities. It is readily raised from seeds, which, when fresh, germinate freely. The seedlings are best sown in pots in a frame in a mixture of loam, leaf-soil and sand until they are large enough to plant out where they are to flower. When planting out, a cool, moist and shady position should be selected for them where they would never become dry. They will grow luxuriantly in rich, deep soil by the margin of water, producing stems between 2 feet and 3 feet high, bearing umbels of drooping pale yellow flowers of good size and great beauty.

P. spectabilis.—A pretty species from the Southern Alps of the Tyrol, near P. clusiana and P. glaucescens, from which it is distinguished by its bright green viscous leaves, dotted and margined with white, and other minor characters. Its large violet carmine flowers are produced in April and May. It is of easy culture under the same conditions as those given to the two species mentioned in calcareous soil.

P. Stuartii.—A somewhat rare Himalayan species of robust habit, growing nearly 18 inches high when planted in rich, moist soil in a shady position. The leaves are large, often 9 inches long, bright green on the top and mealy on the under-surface. The golden yellow flowers are produced in umbels. This species and its variety purpurea, with rich purple flowers, are among the most difficult of Primulas to keep. Although seeds frequently germinate well, the seedlings are apt to damp off during the winter. They are best kept in a frame till the second season, when they usually flower.

P. suffruticosa.—A very distinct shrub-like species from the alpine regions of the Sierra Nevada in California, forming small tufts on woody stems. The leaves are narrow and spatulate, toothed at the end. The rose-purple flowers are borne on stems 3 inches or 4 inches high in May. It likes a warm, sheltered place in the rock garden, planted in firm, stony soil; it also requires the

THE NATIONAL ROSE SHOW.

THE annual metropolitan exhibition in connexion with the above society was held in the Royal Botanic Gardens, Regent's Park, on Friday, the 2nd inst., when a large number of visitors attended to see the blooms. Her Majesty Queen Alexandra (the Patroness) accompanied by H.R.H. Princess Victoria, attended the opening of the show and spent a considerable time inspecting the Roses. Owing to the adverse weather previously experienced, the quality of the flowers was much below the usual standard, very few really good blooms being shown. The catering arrangements, which caused so much trouble last year, were considerably better.

NURSERYMEN'S CLASSES.

General Section.

In the nurserymen's championship class, for seventy-two blooms, distinct, there were six entries, first prize going to Messrs. A. Dickson and Sons, Newtownards, for a really good lot of flowers, Rhea Reid, Mrs. David McKee, Ulrich Brunner, Lady Barham, A. K. Williams, Mme. Melanie Soupert, Charles Grahame and Geo. Dickson being a few of the most noticeable blooms in the exhibit. Second honours fell to Messrs. B. R. Cant and Sons, Old Rose Gardens, Colchester, who also had a good collection of blooms, these being, however, a little smaller than the first-prize group. Caroline Testout, Mme. Jules Gravereaux, Mrs. John Laing, John Cuff, Mme. Ravary, Hugh Watson and Ulrich Brunner were a few of the best here. Messrs. Frank Cant and Co., Braiswick Rose Nurseries, Colchester, were third. Frau Karl Druschki, Mme. Melanie Soupert, Mrs. E. Mawley and White Maman Cochet were a few that we noticed in this collection as being better than most. Fourth prize was allocated to the King's Acre Nurseries, Limited, Hereford.

For forty triplets, distinct varieties, competition was good. Messrs. A. Dickson and Sons were again the champions, their flowers here being very good considering the season, Robert Scott, Rhea Reid, General McArthur, Ulrich Brunner, Mrs. John Laing, Donegal (a lovely new cerise variety), Charles J. Grahame and Lady Ashtown being especially noticeable. Second prize fell to Messrs. Frank Cant and Co., Braiswick Rose Gardens, Colchester, Liberty, Suzanne Marie Rodocanachi and Captain Hayward being the best blooms shown. Third prize was won by Messrs. B. R. Cant and Sons.

For forty-eight blooms, distinct, there were six competitors, first honours falling to Mr. George Prince, Longworth, Berks. In his collection we specially noticed Captain Hayward, Betty, Frau Karl Druschki and Muriel Grahame. Second prize was awarded to Messrs. George Mount and Sons of Canterbury, whose exhibit contained Frau Karl Druschki, Ulrich Brunner and Mrs. David McKee in moderately good condition. Third and fourth prizes were won respectively by Mr. W. Leggett, West Bergholt, Colchester; and Messrs. J. Burrell and Co., Home House Nurseries, Cambridge.

In a similar class for twenty-four blooms, no less than eleven competitors tried conclusions, first honours falling to Mr. Henry Drew, Longworth, Berks, for a really good two dozen. Countess of Annesley, Oberhofgärtner Terks and K. A. Victoria were three of the best. Mr. E. J. Hicks, Twyford, Berks, was a good second, his blooms of Mrs. E. G. Hill, Pharisær and the Lyon Rose being especially attractive. Messrs. Perkins and Sons of Coventry were placed third.

In Class 5, for sixteen triplets, distinct, there were seven entries, first prize being well won by Messrs. George Mount and Sons, who had Frau Karl Druschki, Ulrich Brunner, Mme. Melaine Soupert and Mrs. Theodore Roosevelt in good condition. Second prize went to Mr. George Prince, Longworth, Berks, and third to Mr. Henry Drew.

Tea and Noisette Section.

The D'ombrain Cup, offered for twenty-four blooms, distinct, brought four competitors, the champion being Mr. George Prince, who had good examples of Muriel Grahame, Mme. Constant Soupert, White Maman Cochet and Cleopatra. Mr. Henry Drew was second, his box containing good blooms of Mrs. E. Mawley and Mme. Jules Gravereaux. Third prize fell to Mr. John Mattock, New Headington, Oxford.

In a similar class for twelve blooms there were three entries, Messrs. J. Burrell and Co., Cambridge, being placed first. In this dozen we noticed Mme. Jules Gravereaux in good form. Second and third prizes were won respectively by Messrs. George Mount and Sons and Messrs. W. and J. Brown, Peterborough.

For fourteen distinct varieties, three blooms of each, to be shown in fourteen vases, three groups were staged, Mr. George Prince being a good first, Mrs. E. Mawley and White Maman Cochet being his best. Mr. H. Drew was second, White Maman Cochet being good here also, though small. Mr. John Mattock was third.

Exhibition Roses in Vases.

For twelve distinct varieties, to include not more than six varieties of Teas, seven blooms of each, Messrs. D. Prior and Sons of Colchester were first. Maman Cochet, Mme. Jules Gravereaux, Ulrich Brunner, Bessie Brown and Dean Hole were the best in this group. Second honours went to Messrs. A. Dickson and Sons, Newtownards, who had Ulrich Brunner and Lady Ashtown in good form. The Devon Rosery and Fruit Farm, Torquay, were third. In a similar class for nine distinct varieties of Teas there were three entries, Mr. John Mattock, New Headington, Oxford, being placed first. White Maman Cochet and Mrs. E. Mawley were the two best sorts. Mr. H. Drew was second, his exhibit containing good examples of Muriel Grahame, Medea and Maman Cochet; Mr. G. Prince was third.

Decorative Roses.

In the class for thirty-six distinct varieties, not less than three or more than seven trusses of each variety, Messrs. Frank Cant and Co. were a good first, but the sun shining full on the flowers quickly spoilt them. Ecarlate, Edu Meyer, Rosette de Legion d'Honneur, Gustave Regis, Lady Battersea, Grüss an Teplitz and Mrs. E. G. Hill were a few of the best sorts. Second honours fell to Mr. John Mattock for a well-arranged group, in which we specially noticed Lady Waterlow, Bellefleur, Gustave Regis, Reine Olga de Wurtemburg and Irish Glory. Mr. G. Prince was a good third.

In a similar class for eighteen varieties, Mr. Charles Turner of Slough won first prize in good style, Ecarlate, Mme. Abel Chatenay, Richmond, Papa Gontier and Mme. Ravary all being good. Messrs. W. Spooner and Son, Woking, were second, Lady Waterlow and Rosette de Legion d'Honneur being well shown in this group. Third prize was allocated to Messrs. George Cooling and Sons, Bath.

For eighteen distinct varieties of summer-flowering Roses (Hybrid Perpetuals, Hybrid Teas, Teas and Chinas not admissible) the exhibit from Mr. Charles Turner was again adjudged the best. Rosa Mundi, Red Damask, Common Moss and Crimson Damask were all excellent. Messrs. George Cooling and Sons were second with an attractive group.

In the class for eleven distinct varieties, not less than three sprays of each, to be shown in vases, competition was very good, Messrs. George Mount and Sons being the champions with a lovely group, which included Liberty, Dorothy Perkins, Mme. Abel Chatenay, Richmond and Gustave Regis in excellent form. Second prize was awarded to Mr. John Mattock, who had excellent examples of Bellefleur, and third prize went to Mr. George Prince.

Groups of Roses.

For a representative group placed on the floor, to include as far as possible Hybrid Perpetuals, Hybrid Teas, Teas, Noisettes, Chinas, Polyanthas, &c., pot plants and cut flowers to be included, Hobbies, Limited, Dereham, Norfolk, were awarded the first honours of a gold medal and £5 for a really wonderful and comprehensive group of splendid flowers and plants, ramblers being chiefly employed, a few small suspended baskets and vases placed on the floor being filled with cut flowers. Lady Gay, Galaxy, Delight, Coquina, Hiawatha and Dorothy Perkins were a few of the most conspicuous varieties shown. Messrs. Paul and Son, The Old Rose Nurseries, Cheshunt, were second, this group also being good, but including more cut flowers than the first-prize group. The new rambler Ariel, a large pink single variety with yellow stamens, was well shown in plant form.

In a similar class for a representative group of cut Roses, to be placed on staging, competition was good, the gold medal and first prize being well won by Messrs. George Mount and Sons of Canterbury with a group of very high artistic merit. Tall ramblers formed a pretty background, cut flowers being most tastefully arranged in front. Among the latter Richmond, Joseph Lowe, Gustave Regis and Mme. Melanie Soupert were most attractive. Second honours fell to Mr. John Mattock, New Headington, Oxford, whose group was also a very pretty though rather crowded one, Mme. Ravary, Mme. Jules Grolez, Rosa Mundi, Bardou Job, Liberty, Richmond, and a host of other good and interesting sorts being included. Third prize went to Messrs. W. and J. Brown of Peterborough, whose group was also a praiseworthy one.

OPEN TO ALL NURSERYMEN AND AMATEURS.

General Section.

For eighteen blooms of any crimson Rose, to be shown in a Bamboo stand, there were six entries, Mr. E. J. Hicks of Twyford, Berks, winning first prize with good blooms of Richmond. Second prize went to the King's Acre Nurseries, Limited, Hereford, and third to Messrs. B. R. Cant and Sons, each staging the same variety.

In a similar class for any white or yellow Rose, ten competitors staged blooms, first honours going to Messrs. S. McGreedy and Son, Portadown, Ireland, for very clean blooms of Mme. Melanie Soupert. The Devon Rosery and Fruit Farm, Torquay, were second with Frau Karl Druschki, most of the flowers being very good indeed. Messrs. Hugh Dickson and Son of Belfast were third.

In a similar class for any Rose other than white, yellow, or crimson, the entries were very numerous indeed, Mr. W. Bentley, Belgrave, Leicester, being placed first for good flowers of

Lady Faire. Second honours were awarded to Messrs. A. Dickson and Sons, Newtownards, for highly coloured blooms of Lady Ashtown, and Messrs. B. R. Cant and Sons were placed third for Mrs. J. Laing.

Only two exhibitors entered the class for twelve blooms of White Maman Cochet, the first-prize dozen being shown by Messrs. Frank Cant and Co., Braiswick Rose Gardens, Colchester, the flowers being rather small but of good shape. The second-prize lot was shown by Messrs. D. Prior and Son of Colchester. The class for twelve blooms of Frau Karl Druschki and twelve of J. B. Clark only brought forth two exhibits, the first-prize box coming from Messrs. D. Prior and Son of Colchester, who had some good Frau Karl Druschkis. The second-prize exhibit was shown by Messrs. George Mount and Sons.

For nine blooms of any new Rose, Messrs. A. Dickson and Sons were first out of a large number of exhibitors with Lady Vincent, a pointed Rose of rich cream and blush pink colouring. Second prize went to Messrs. Hugh Dickson of Belfast for W. R. Smith, a creamy white pointed variety. Mr. George Prince was third with the Lyon Rose.

For twelve blooms, distinct varieties, of new Roses offered for the first time by nurserymen in the British Isles in 1906, there were a large number of exhibits, Messrs. Hugh Dickson, Belfast, being first. Among their flowers we specially noticed Miss Cynthia Ford (a rich salmon pink variety), W. R. Smith (a Tea somewhat resembling White Maman Cochet) and the Lyon Rose. Messrs. A. Dickson and Sons were second, Walter Speed (creamy white), Lady Ursula (faint blush pink) and Rhea Reid being very good here. Messrs. Perkins and Sons of Coventry were third.

In the class for new seedling Roses Messrs. Hugh Dickson of Belfast won the gold medal for Countess of Shaftesbury, a beautiful deep bloom of rich cerise pink colouring in the centre, the outer petals being tinted almost silvery pink. The foliage is large and robust and of a deep green tinted crimson hue. Another gold medal variety was named Lady Pirrie, a beautiful pointed Rose possessing the same rich colouring as the Lyon Rose, but the salmon pink hue was more pronounced. Muriel Johnson, a single apricot-coloured variety, also shown by Mr. Hugh Dickson, received a card of commendation. Mrs. Herbert Stevens, a lovely pointed, very full, creamy white Rose of rich fragrance, was shown by Messrs. S. McGreedy and Sons, Portadown; Thelma, a single-flowered hybrid wichuraiana of deep and very red hue, the colour fading away at the base of the petals and the stamens being yellow, shown by Messrs. W. Spooner and Sons, Woking; Climbing Lady Ashtown, a climbing form of this well-known Rose, shown by Mr. F. Bradley, Peterborough; and Monaghan, a large rich crimson single with enormous foliage, and shown by J. Campbell Hall, Esq., Rowantree, Monaghan, each received a card of commendation.

The first prize for an arch decorated with long sprays of not more than two sorts of climbing Roses was won by Hobbies, Limited, Dereham, Norfolk.

For a set of three sprays of Roses suitable for ladies' wear, Mrs. O. G. Orpen, West Bergholt, Colchester, and Mrs. F. H. Cooke, Birch, Colchester, were placed equal first, third prize going to Mr. John Mattock.

Section for Decorative Roses.

For twelve distinct varieties of single-flowered Roses, to be arranged loosely in vases, there were four groups staged, first prize being won by Messrs. Frank Cant and Co., Braiswick Rose Gardens, Colchester, with a charming group; Irish Beauty, Morgenrot, Crimson Damask and Irish Glory were a few that appealed to us here. Messrs. W. Spooner and Sons, Woking, were placed second, and third prize went to Messrs. G. Cooling and Sons, Bath.

For a decoration of cut Roses for dinner-table decoration (ladies only), first prize went to Miss M. Foden, Marlowes Nursery, Hemel Hempstead, for a very pretty design of Mme. Abel Chatenay. Second and third prizes in this class were won respectively by Miss E. P. Butcher, Ipswich, and Miss Ada Townsend, Worcester. For a bowl of cut Roses the prizes were won by Miss Ada Townsend; Miss A. R. Bide, Farnham; and Miss M. Harkness, Hitchin, in the order named.

AMATEURS.

General Section.

The Champion Trophy class in the amateurs' division for thirty-six blooms, distinct varieties, was won by Mr. Conway Jones, Hucclecote, Gloucester, with a beautiful series considering the season. He led the four entrants with beautiful examples of J. B. Clark, Captain Hayward, Gustave Piganeau, A. K. Williams, Caroline Testout and C. J. Grahame. Mr. E. J. Holland, Sutton, Surrey, was placed second with a number of useful blooms; Mme. Melanie Soupert, Mrs. W. J. Grant, Mildred Grant and Yvonne Vacherot were conspicuous flowers. The former champion, Mr. E. B. Lindsell, Bearton, Hitchin, was placed third with a bright lot of flowers; Mrs. E. Mawley and Mildred Grant (very beautiful) were noteworthy examples in this stand. The Rev. J. H. Pemberton, Havering-atte-Bower, Essex, was fourth.

In Class 32, for twenty-four distinct varieties, there were but two entries. Of these Mr. Alfred Tate, Downside, Leatherhead, was first with an interesting series; Captain Hayward, Mildred Grant, Richmond and Horace Vernet were good. Second prize was awarded to the Rev. T. G. W. Henslow, Stanton St. Quintin, Chippenham, with a bright lot of flowers.

In Class 33, for twelve distinct varieties, three blooms of each, there were again only two entries. In this instance Mr. Conway Jones was again placed in the leading position with a number of good blooms. Captain Hayward, Hugh Dickson, C. J. Grahame, Ulrich Brunner and Mrs. R. G. Sharman Crawford were some of the best. Mr. E. J. Holland was second with an attractive exhibit. Mildred Grant, Mrs. John Laing, Mme. Melanie Soupert and White Maman Cochet were good examples.

In Class 34, for nine blooms of any Rose, Tea-scented or Noisette, there were three exhibits. The Rev. J. H. Pemberton was first with fairly good examples of Bessie Brown; Mr. Holland second with Mrs. W. J. Grant; and Mr. G. A. Hammond, Cambrian House, Burgess Hill, third with Mrs. John Laing. The first prize in this class was offered by Messrs. Thomas Rivers and Sons, Sawbridgeworth.

In Class 35, for twenty-four blooms, distinct varieties, there were again only two entries. The first prize and Veitch Memorial Medal were well won by Mr. E. M. Eversfield, Denne Park, Horsham. His blooms of Mme. Melanie Soupert, Helen Keller and Mrs. Sharman Crawford were noteworthy. Second prize was won by Mr. C. C. Williamson, Wilstead, Canterbury. This and the two succeeding classes were open to growers of fewer than 3,000 plants.

In Class 36, for twelve distinct trebles, Mr. Eversfield was again first, being the only entrant. Caroline Testout, Ulrich Brunner and Dean Hole were the best of the series. The same exhibitor was first in Class 37, for nine blooms of any Rose except Tea or Noisette. He staged fair examples of Lady Ashtown.

Growers of fewer than 2,000 plants showed very well indeed. The Christey Challenge Cup and first prize were won by Mr. W. R. Hammond, who had a wonderfully bright and interesting series of blooms; Duke of Edinburgh, Mamie, Boadicea, J. B. Clark, Mme. Jules Gravereaux and Gustave Piganeau were all excellent examples. This was one of the best-contested classes, there being no less than six entries. The Rev. A. L. Fellowes, Bunwell Rectory, Attleborough, was a good second, a superb bloom of J. B. Clark being conspicuous. Third prize was secured by Mr. R. Pawley, Upper Scudamore, Warminster, who had Comtesse de Nadaillac, Maman Cochet and Mme. Melanie Soupert in charming form.

There were five entries in Class 39, for eight distinct varieties, three blooms of each. First prize was secured by Mrs. E. Croft Murray, Perivale, Ryde, Isle of Wight, with a charming lot of blooms. J. B. Clark, Frau Karl Druschki, Tom Wood, Mrs. J. Laing and White Maman Cochet were represented in beautiful condition. Messrs. George R. Bonner, Tillingbourne, Barnwood, Gloucester, was second, having Mildred Grant, Mrs. J. Laing and Oberhofgärtner Terks in excellent condition. Third prize was won by Mr. G. Speight, Market Harborough, with a rather poor lot.

The four entries in Class 40, for eight trebles, made a good display. First prize was won by the Rev. R. Powley; Captain Hayward, Caroline Testout and Mme. Jules Gravereaux were his best flowers. Mr. F. Slaughter was placed second with neat Frau Karl Druschki among others, and Mr. W. Colin Romaine, The Priory, Old Windsor, was third with a very bright series of blooms. Mrs. E. Croft Murray was, unfortunately, disqualified in this class. She had superb flowers.

Mrs. W. R. Hammond had the run of four exhibitors in the class for seven blooms of any Rose except Tea or Noisette, showing Lady Ashtown fairly well. Good blooms of Mrs. John Laing won second prize for Mr. W. Colin Romaine, and Mr. John Hart, Lochinver, Little Heath, was third with a brilliant Rose.

For classes to suit growers of fewer than 1,000 plants, the seven entries in Class 42 made a capital display; this was for twelve blooms distinct. First prize was won by Dr. Charles Lamplough, Kirkstall, Alverstoke, with a box of beautiful blooms, Mme. Melanie Soupert, Caroline Testout, Bessie Brown and Mrs. John Laing being very handsome. Second prize was won by the Rev. J. B. Shackle, Dropmore Vicarage, Maidenhead, with a fine lot of flowers; Mildred Grant and Mrs. Mawley were charming. Third prize was awarded to Mr. A. C. Turner, The White House, Walton-on-Thames, who had a very handsome series; Mrs. John Laing was lovely.

In Class 43, for five blooms in a vase, there were two exhibits. Mr. C. F. H. Leslie, Upcombe, Hertford, was first with Charles J. Grahame; and the Rev. J. B. Shackle second with Mildred Grant in fair condition.

Classes for growers of fewer than 750 plants were pleasing. Of the four exhibits of twelve blooms, distinct, Mr. Harry Richards, West Ridge, Ryde, was first with a beautiful lot of blooms. The best flowers were Bessie, Cleopatra, Mildred Grant, Marquis Litta, Mrs. John Laing, Caroline Testout, Dean Hole, Lady Ashtown, Her Majesty, Mme. Jules Gravereaux, Hugh Dickson and The Bride. This was one of the finest exhibits in the show. A much less meritorious box of blooms won second prize for Mr. E. B. Lehmann, Ifield Lodge, Crawley, Sussex, in which a good J. B. Clark was conspicuous. Third prize was secured by the Rev. F. R. Burnside, Great Stambridge Rectory, Essex, a grand Mildred Grant being in evidence here. The first prize was the Grahame Memorial Prize, being a piece of plate.

Class 45, for five blooms in a vase, was a somewhat poor display. The Rev. F. R. Burnside was first with Mildred Grant, and Viscountess Enfield was second with La France.

One exhibit only was forthcoming in the class for six distinct varieties, three blooms of each. This easily secured the first prize for Dr. Lamplough; Mrs. John Laing and Bessie Brown were the best in this collection.

For growers of fewer than 500 plants there was, as usual, a pretty display. In Class 47, in competition for the Ben Cant Memorial Prize, to

onsist of nine blooms, distinct varieties, there ere no less than thirteen exhibits, making a ost interesting competition. First prize was warded to Mrs. E. A. Moulden, Bandra, tevenage, for a very bright and beautiful lot of owers; Marquis Litta, Mrs. John Laing, C. J. rahame, Mrs. E. Mawley and White Maman ochet were all good. Second prize was won by Ir. Vivian Rolt, Brook House, Storrington, ulborough, Sussex, with a heavy lot of flowers; Iildred Grant, Mme. Melanie Soupert, Mrs. V. J. Grant and Hugh Dickson were capital pecimens. Third prize was secured by Mr. ewis J. Pawle, Rowsham, Harrow, with a retty set.

Class 48, for six blooms, distinct, had but five xhibits. The leading exhibit came from Mr. . C. Sawday, Pjydal Mount, Heath Road, Veybridge, who had J. B. Clark in good form. econd honours were secured by Mr. H. Clinton, Bayfordbury, Hertford, with a good bloom of Irs. W. J. Grant. Third prize was won by Mr. . Gibb, Westfield, Reigate.

For five blooms, set up in a vase, of any Rose xcept Tea or Noisette there were eleven xhibits. Mr. Vivian Rolt was first with good xamples of Mildred Grant; Mr. J. Gibb was econd and Mr. Lewis S. Pawle third.

An extra class for divisions F, G and H was ne for twelve blooms, distinct varieties. First rize was won by Dr. Charles Lamplough, who ad a bright lot of good blooms; J. B. Clark, rau Karl Druschki, Florence Pemberton, Bessie Brown and White Maman Cochet were is best flowers. Second prize was secured by Mr. . F. H. Leslie with smaller though very neat lowers. Horace Vernet, Mamie and Mildred rant were quite noteworthy. Mr. Vivian Rolt vas third; in his stand he had a wonderful xample of Mildred Grant.

Classes for growers of fewer than 350 plants vere the centre of attraction. Class 51 provided even exhibits. In this case Mr. E. F. Brown, ynton, Sussex Place, Slough, had a very nteresting display; Dean Hole, Mamie, Mildred rant and Mrs. W. J. Grant were his best lowers and placed him first. Second prize was ecured by Mr. W. P. Panckridge, Petersfield, Hants; and third prize was won by Mr. Alan earle, Ashton Lodge, Basset. Lyon Rose was handsome bloom in the latter stand.

Five blooms set up in a vase in Class 52 were epresented on five occasions. The winning uintet came from Mr. E. M. Burnett, 15, West-ood Road, Southampton, who had Lady shtown. Mr. E. F. Brown was second with ean Hole, and Mr. Alan Searle third with rau Karl Druschki.

Class 53, for divisions H and I, was for twelve looms in four trebles; there were nine entries. Mr. Keppel H. Gifford, Edensor, Slough, was irst with a passable series. Mr. Vivian Rolt was placed second with much larger flowers; his Mildred Grant, Lady Ashtown and M. Joseph Hill were excellent examples. Mr. Lewis S. Pawle was third.

For growers of fewer than 200 plants there was again a most satisfactory competition in the differ-ent classes. For six blooms, distinct, there were no less than seventeen entries. Mr. C. A. L. Brown, Hatfield Peverel, Witham, Essex, won the piece of plate offered by Messrs. G. Bunyard and Co.; his blooms of Mrs. T. Roosevelt, Dean Hole, John Ruskin and Florence Pemberton were all good. Second prize was won by Mr. W. G. Pedley, Hillside, Hoddesdon, Herts, his bloom of White Maman Cochet being lovely. Third prize was secured by Mr. Fred Barratt, 11, Craigton Road, Welt Hall, Eltham.

Class 55, for six blooms in four varieties, brought forth an entry of four. Mr. A. Ernest Prothero, Bourne House, Purley, Surrey, was first, Mr. George Gosling, Stratton Audley Park, Bicester, being second and Mr. A. Wilkinson, St. Olaves, Granville Road, North Finchley, third.

Nine competitors were forthcoming in Class 56, for five blooms shown in a vase. Mr. W. Fowler, Irvington, Mill Hill, N.W., won first with Captain Hayward; Mr. E. W. Morris, Uckfield, Sussex, second with Bessie Brown; and Mr. Richard House, Dorney Wood, Burnham, Bucks, third with Captain Hayward.

Class 57, for four distinct varieties, three blooms of each kind, found four exhibits. The Rev. J. T. Kershaw, Corsley Rectory, Warminster, was first with Bessie Brown, Dean Hole, Mrs. Edward Mawley and Mildred Grant. Second prize was awarded to Mr. Francis J. Borland, Stalheim, Brunswick Road, Sutton, Surrey, and third prize was secured by the Rev. T. H. Tower, M.V.O., Holy Trinity Rectory, Windsor.

Seven entries in Class 58, for six blooms, distinct varieties, made a pretty display. The challenge cup offered by Mr. E. R. Smith, for Roses grown within eight miles of Charing Cross, was this year won by Mr. Ramon de Escofet, Kingsley Dene, Green Lane, Dulwich, S.E. Florence Pemberton was the best bloom in his stand. Mr. Herbert Whitmee, The Briars, North Finchley, was a good second, A. K. Williams, Gustave Piganeau and Tom Wood being good flowers. Third prize was secured by Mr. Howard Williams, Willow Cottage, Torrington Park, North Finchley.

In Class 59, for six blooms in four varieties, Mr. Percy W. Greenaway, Como, Gwendoline Avenue, Putney, was first and Mr. A. Wilkinson second.

Classes 60 to 62, for growers who have never won a prize at any show of the National Rose Society, was of more than ordinary interest. The piece of plate offered by Messrs. D. Prior and Son for twelve blooms was won by Mr. G. R. Bonner with beautiful flowers. The Rev. T. G. W. Henslow was second and Mr. Edward Jackson, Sydenham House, Rochford, Essex, third.

The class for nine blooms, distinct, found Mr. J. Stuart, Broomhill, Harrow, leading with heavy flowers, Mildred Grant being very fine. Mr. Sydney F. Jackson, Danehurst, Epsom, was second, and Mr. C. W. Edwards, Brentwood, Ringstead Road, Sutton, Surrey, third. The classes for six varieties, and also for those who have joined the society since the last Botanic show, were all eagerly sought after by the large number of visitors. The classes were well filled.

In Class 65, for twenty-four blooms, distinct varieties, there were four exhibits. First prize was won by Mr. G. A. Hammond, who had a bright and even series of blooms; J. B. Clark, George Laing Paul, Richmond, Mme. Melanie Soupert and Mrs. T. Roosevelt were conspicuously good. Second prize was credited to Mr. Conway Jones; J. B. Clark was grand. Mr. E. M. Eversfield was awarded third prize.

The silver cup offered by Messrs. Robert Harkness and Co. was won by Mr. W. R. Hammond. This, Class 66, was for twelve blooms, distinct. Mildred Grant, Bessie Brown, William Shean, Mrs. Theodore Roosevelt and Laurente Carle were splendid. Mr. Alfred Tate was second with a really good box of blooms. Captain Hayward, Hugh Dickson and Comte de Raimbaud were glorious. There were only two exhibits in this class.

Class 67, for nine Teas and nine Hybrid Teas, was represented by one exhibitor. This was Mr. E. M. Eversfield, who was placed first with creditable blooms. Earl of Warwick and Mrs. E. Mawley were notable sorts.

The Tea and Noisette Challenge Trophy and Replica, for eighteen blooms, Teas and Noisettes, distinct varieties, was won by Mr. Conway Jones, who was the only exhibitor. Mrs. Edward Mawley and Souv. de Pierre Notting were good blooms.

Class 71, for twelve Teas and Noisette blooms, distinct, found only three competitors. The Rev. J. A. L. Fellowes, Attleborough, was placed first with neat and even blooms. White Maman Cochet, Souvenir d'Glin, Cleopatra, Mme. de Watteville and Innocente Pirola were beautiful examples. Mr. E. M. Eversfield was second and Mr. Alfred Tate third; the latter had a fine bloom of Mrs. Edward Mawley. The piece of plate offered as first prize was given by Mr. A. E. Prince, Longworth.

In Class 76, for nine blooms, Teas and Noisettes, there were three exhibitors. First prize was won by Mr. F. Slaughter; Maman Cochet, White Maman Cochet, Mrs. Edward Mawley, Mme. Constance Soupert, Mme. Jules Gravereaux, Souv. de Pierre Notting and Boadicea were all good. Mr. Alfred Evans, Marston, near Oxford, was second, and Mr. M. Whittle, 60, Belgrave Avenue, Belgrave, Leicester, third.

Class 82, for five blooms each of nine varieties, was a welcome feature of the show. There were three exhibits, and they were all good. Mr. G. A. Hammond was a good first with a charming series—Ulrich Brunner, Frau Karl Druschki, Mrs. T. Roosevelt, Mme. Melanie Soupert, Mrs. W. J. Grant, Hugh Dickson, Mildred Grant and Caroline Testout. Mr. Conway Jones was second, also with a beautiful exhibit. Tom Wood was good in this class. Mr. E. M. Eversfield was third with an interesting lot.

Decorative Exhibits.

For a bowl of Roses in Class 86, to be confined to exhibition Roses, there was a very beautiful display. Eight bowls were set up, the winning exhibit being displayed by Mrs. F. H. Cooke, Birch, Colchester, with lovely blooms of Mrs. W. J. Grant. Mrs. G. C. Sawday was second, also with Mrs. W. J. Grant, but with pale blooms. Third prize was won by Mrs. E. M. Robinson, Emerson Park, Hornchurch, Essex, with Caroline Testout.

Eleven exhibits in Class 87, for a bowl of decorative Roses, made a charming floral picture. Miss J. B. Langton, Raymead, Hendon, N.W., was a good first with Dawn well disposed; Mrs. O. G. Orpen, Colchester, second with Lady Curzon; and Mrs. Herbert Molyneux, Purley, third with Gustave Regis.

The fourteen exhibits in Class 88, for a vase of cut Roses, made a really fascinating display. First prize was won by Mrs. W. Smith, Bushey Heath, Herts, with Mme. Ravary well disposed; Miss J. B. Langton was second with a dainty vase of the same variety; and Mrs. Edward Mawley, Berkhamsted, third with beautiful flowers of Mrs. W. J. Grant.

Twelve hand-baskets of Roses were set up in Class 89. First prize was deservedly placed to the credit of Mrs. O. G. Orpen. Irish Elegance and Irish Beauty were charmingly disposed with nice foliage. Second prize was secured by Mrs. F. H. Cooke, Colchester, with Mme. Abel Chatenay artistically arranged. Third prize was won by Miss Adelaide F. Harwood, Colchester, again with Mme. Abel Chatenay.

For a bowl of wichuraiana Roses the four exhibits were very pretty. First prize was awarded to Mrs. H. C. Duckworth, Elmstead, Twickenham, second prize being secured by Miss J. B. Langton, and was much admired. Mrs. O. G. Orpen had to rest content with third place in this instance, although showing well.

The eleven bowls of decorative Roses was a pleasing feature. Mrs. Howard Williams, Torrington Park, North Finchley, won the silver cup given by Mr. Charles E. Shea, showing Mme. Abel Chatenay superbly. Second prize was won by Miss E. M. Robinson, showing William Allen Richardson; and third prize was awarded to Mrs. Vivian Wood, Rosemount, Rickmansworth.

There were eleven exhibits in the class for a table decoration on circular tables 6 feet in diameter. All the tables were, without exception, very good. First prize was placed to the credit of Miss West, Firth Dene, Reigate, who displayed most effectively Richmond in bud and in open blooms. Second prize was secured by Miss J. B. Langton with an association of Irish Elegance and Edu Meyer, the two varieties blending beautifully. Mrs. Orpen was third with a very charming table decoration, Gottfried Keller and Una being harmoniously associated. Miss Adelaide F. Harwood had a

lovely table of Mme. Abel Chatenay for fourth prize.

In Class 92, for a table decoration arranged in a space 8 feet by 4 feet, thirteen of the entrants made a very beautiful display. Leading honours rested with Mrs. W. Smith, who showed Irish Elegance in superb fashion. This arrangement was very charming. This exhibit won the piece of plate offered by Mr. Orpen. Second prize was won by Mrs. Charles Lamplough, who used Irish Elegance and Queen Mab together most effectively. Gottfried Keller as shown by Mr. A. T. Booth, Lynton, Westbury Road, Woodside Park, N., was most delightful, and well merited the equal third prize awarded to Mrs. F. H. Cooke, who showed a most dainty arrangement.

For six distinct varieties, not less than three or more than seven trusses of each, first prize was won by Edward Mawley, Esq., Rosebank, Berkhamsted, with some excellent flowers. Second prize went to C. S. Gordon Clark, Esq., Leatherhead.

The class for six vases of Sweet Briar Roses, six distinct varieties, was a very pretty one, first honours going to Lady Sutton, Benham-Valence, Newbury; second to Mrs. E. Horne, Reigate; and third to H. R. Darlington, Esq., Potters' Bar.

For six vases of garden or decorative Roses, Hybrid Perpetuals, Hybrid Teas, Teas and Chinas excluded, first prize was won by Miss B. H. Langton, Hendon, the Rev. J. H. Pemberton and H. R. Darlington, Esq., following in the order named.

In the class for five distinct varieties of garden or decorative Roses, to be shown in vases, the premier award went to the Rev. J. B. Shackle, Maidenhead, second and third prizes being won respectively by H. E. Molyneux, Esq., Purley, and Miss B. H. Langton, Hendon.

In a similar class, the trusses to be arranged in Bamboo stands, first honours fell to O. G. Orpen, Esq., West Bergholt, Colchester, the Rev. J. H. Pemberton being second and Miss B. H. Langton third.

The Best Blooms.

A silver medal was awarded to each of the following varieties as being the best of their class in the show: Nurserymen's section—Hybrid Perpetual A. K. Williams, shown by Messrs. A. Dickson and Sons, Newtownards; Hybrid Tea Mme. Melaine Soupert, shown by Messrs. S. McGreedy and Sons, Portadown, Ireland; and Tea Mrs. Edward Mawley, shown by Mr. H. Drew of Oxford. Amateurs' section—Hybrid Perpetual Mrs. John Laing, shown by Mrs. E. Croft Murray, Ryde, Isle of Wight; Hybrid Tea Mildred Grant, shown by Mr. E. B. Lindsell, Hitchin; and Tea Maman Cochet, shown by Mr. F. Slaughter, Steyning, Sussex.

Non-competitive Exhibits.

Messrs. Stuart Low and Co., Bush Hill Park, Enfield, staged a very fine group of Carnations and Roses, these being most tastefully displayed and comprising all the best varieties. Fruits of the new Lowberry and also the Raspberry-flavoured Berry named Phenomenal were well shown, the former being especially good.

Mr. Howard H. Crane, Highgate, N., had a very fine exhibit of the newer bedding Violas, these being very tastefully arranged and attracting much attention with their beautiful and well-defined colours.

Messrs. R. H. Bath, Limited, Wisbech, staged high-class Delphiniums and Pæonies in great variety, the whole being very good indeed.

Schedules Received.

Hanley Horticultural Fête. Secretary, Mr. William Poulson, Town Hall, Hanley.

The Maldens, Coombe and Worcester Park Horticultural Society. Secretary, Mr. F. Cottrall, Estate Office, New Malden.

Highgate Horticultural Society. Secretary, Mr. F. C. Cawte, 39, Homesdale Road, Highgate.

SOME OTHER ROSE SHOWS.

BRIGHTON AND SUSSEX ROSE AND SWEET PEA SHOW.

Most unfavourable weather marked the opening of this exhibition, held on June 29 and 30 in the Dome and Corn Exchange of the Royal Pavilion. The wet and gloominess of the outside immediately became dispelled by the feast of bloom which greeted the visitor on entering. Here, within the Dome, were lovely tables of Sweet Peas and Carnations in the centre, while Gloxinias, Begonias, &c., occupied other staging around the circle. Tastefully set up around the orchestra platform were specimen Fuchsias, Caladiums and Dracænas, also Mignonette, the latter being not for competition, though exceedingly well grown in large pots. Within the Exchange Sweet Peas formed the leading feature and were generally well shown, Carnations likewise being well to the fore. Roses, unfortunately, in the various cut classes were not well represented, the standard being very low; indeed, it was with difficulty one could find a good bloom. Non-competitive exhibits proved of immense value as an attraction.

Division I.—Open.

For a group of Roses, either plants or plants and cut blooms, in a space 15 feet by 8 feet, any shape or design, Messrs. George Mount and Sons, Canterbury, were an easy first with a splendidly arranged and artistically formed group. The varieties Frau Karl Druschki, Richmond and Joseph Lowe were exceedingly conspicuous, having been remarkably well grown. Mr. G. W. Piper, The Nurseries, Uckfield, was second, and Mr. Edward Jones, gardener to Harry Young, Esq., Withdean Grange, Brighton, third. With the first prize went a handsome silver cup, together with the society's silver-gilt medal. Messrs. Mount must be congratulated on not only securing the above, but receiving in addition, to be held for one year, the Corporation Challenge Bowl, presented for the most meritorious exhibit in the show, and whose group was considered the most worthy. For a group of Roses, similar to the above, in a space 12 feet by 6 feet, Messrs. Mount again secured the leading honour; and for twelve Roses in pots, any variety, Messrs. Mount were again first, followed by Mr. Frank Woollard, Lewes Road, Brighton. For a circular group of Ferns, 12 feet in diameter, Mr. Edward Jones was first, with Messrs. George Miles and Son, Brighton, second.

Cut Flowers (Open).

For Roses, forty-eight blooms, distinct, Messrs. George Mount and Sons were first (gold medal), Mr. Frank Woollard securing the silver-gilt medal. For thirty-six blooms, distinct: First, Mr. Harris, gardener to E. M. Eversfield, Esq., Denne Park, Horsham (society's silver medal); second, Messrs. George Mount; third, Mr. Frank Woollard. For thirty long-stemmed Roses, six sorts, the first prize and the society's silver-gilt medal went to Messrs. George Mount and Sons for Richmond, Mrs. John Laing, Mme. Abel Chatenay and others; second, Mr. G. Norman, gardener to A. Morris, Esq., Upper Drive, Hove.

For a collection of Sweet Peas artistically arranged with any cut foliage or foliage plants on a table 4 feet square, the challenge cup, society's silver medal and first prize fell to Mr. James Box, Lindfield, whose device, rising from a well-filled bottom, was representative of an aeroplane and evoked considerable admiration, as also did those of Mr. C. F. Waters, Balcombe, and Mr. A. T. Paskett, gardener to E. J. Johnstone, Esq., Burrswood, Groombridge, who were second and third respectively.

Sweet Peas only, twenty-four sorts in twenty-four vases: First prize and society's silver-gilt medal went to Mr. James Box with nice specimens of Paradise Carmine, Clara Curtis, Audrey Crier, Constance Oliver, Mrs. Henry Bell, Countess Spencer, &c. Mr. A. T. Paskett was second.

For a collection of cut Carnations on a table 4 feet square, the handsome silver challenge cup, society's silver medal and first prize were won by Mr. A. T. Paskett; second, Mr. C. F. Waters. Both tables were admirably arranged, the former consisting chiefly of Tree varieties.

For a collection of vegetables, Mr. George Porter, gardener to Colonel Dudley Sampson, Buxshalls, Lindfield, was first; Mr. Tourle, gardener to F. Barchard, Esq., Horsted Place, Uckfield, second; and Mr. J. C. Reeves, gardener to Captain H. Acton Blake, Pucks Croft, Rusper, third.

Division II.—Gentlemen's Gardeners and Amateurs.

Roses, twelve blooms (Hybrid Perpetuals), distinct: First, Mr. Harris; second, Mr. H. MacFadyen, Cuckfield Park. Roses, twelve blooms (Teas), distinct: Mr. Harris was again first and Mr. H. MacFadyen second. Roses, six blooms (Teas), distinct: First, Mr. A. Roakes; second, Mr. A. Stander, Horsham; third, Mr. E. W. Morris, M.R.C.V.S., Uckfield.

For a circular group of miscellaneous flowering plants in a circle 10 feet in diameter, Mr. Edward Jones secured an easy first with a well-put-up collection of varied plants, including Ferns. Mr. George Chandler, gardener to S. C. Witting, Esq., Hollingbury Copse, Brighton, was second; and Mr. H. Bennett, Hatch Beauchamp, Withdean, third.

SOUTHAMPTON SUMMER SHOW.

An exceedingly fine exhibition of Roses, Sweet Peas, Carnations, fruit and vegetables was held at the County Ground on the 29th and 30th ult. The Southampton Royal Horticultural Society was established in 1862, and since that time many grand exhibitions of garden produce have been held there under the very able direction of Mr. Fuidge, the courteous secretary. There were some withdrawals of entries in the Rose classes, owing to the recent stormy weather having damaged the blooms so much, but the quality of the exhibits in general was excellent.

In the open class for forty-eight blooms, distinct, Messrs. B. R. Cant and Sons, The Old Rose Gardens, Colchester, were placed first with the following varieties: C. J. Grahame, Caroline Testout, Rosomane Gravereaux, Mrs. John Laing, Bessie Brown, Crown Prince, Mrs. Theodore Roosevelt, Rev. Alan Cheales, Mildred Grant, Marquise Litta, Robert Scott, Hugh Dickson, William Shean, Gustave Piganeau, Mme. Jules Gravereaux, Lohengrin, Marguerite Appert, Dean Hole, Captain Hayward, Killarney, G. L. Paul, Lady Ashtown, Gustave Grunerwald, Queen of Spain, Exquisite, Mme. Melanie Soupert, Laurente Carle, J. B. Clark, Joseph Lowe, Mme. Crapelet, Comtesse de Ludre, Mme. Ravary, Auguste Rigotard, Lyon Rose, Comte de Raimbaud, Maréchal Niel, Mrs. J. Bateman, Frau Karl Druschki, Liberty, Mrs. W. J. Grant, General Jacqueminot, Mrs. Sharman Crawford, Hugh Watson, Lady Helen Vincent, Marie Verdier and Marchioness of Downshire. In this stand Mme. Jules Gravereaux was selected as the premier bloom in the show. Second honours fell to Mr. Drew, Longworth, Berks, who staged a beautiful lot of blooms.

Messrs. B. R. Cant and Sons were also first for twelve varieties, three trusses of each, namely, Bessie Brown, J. B. Clark, Mrs. John Laing, Gustave Grunerwald, Dean Hole, Laurente Carle, A. K. Williams, Caroline Testout, Mildred Grant, Richmond, Captain Hayward and Mme. Jules Gravereaux. Mr. Drew again came second with a grand lot, Caroline Testout, Bessie Brown and Mildred Grant being lovely.

Mr. Drew was easily first for twelve blooms, Teas or Noisettes, distinct, with the following: The Bride, Maman Cochet, Mme. Jules Gravereaux (grand), Mrs. Edward Mawley, Bridesmaid, Niphetos (superb), Souvenir d'un Ami (lovely), Muriel Grahame, White Maman Cochet, Cleopatra, Mrs. Myles Kennedy and Medea. Messrs. B. R. Cant and Sons won second honours.

Some lovely blooms were staged in competition for the Munt Challenge Cup, eighteen blooms, distinct, being called for. Mr. Percy Sugden, Wimborne, was the winner. He had White Maman Cochet, Mrs. Mawley, Charles J. Grahame, Bessie Brown, William Shean, J. B. Clark, Mrs. W. J. Grant, Mrs David McKee, Gustave Grunerwald, Mrs. E. G. Hill, Mrs. Myles Kennedy, Bridesmaid, Mme. Melanie Soupert, Captain Hayward, Lyon Rose, Avoca, Dean Hole and Antoine Rivoire all being clean, fresh flowers. Dr. Charles Lamplough, Alverstoke, was second, Caroline Testout, Bessie Brown, Mrs. W. J. Grant and Lady Ashtown being his best blooms. Third honours fell to Mr. D. Seaton, Lymington, Hants. Dr. Lamplough and Mr. F. Slaughter, Sussex, were second and third respectively for six varieties, three trusses of each.

For twelve blooms, Teas or Noisettes, distinct, Messrs. Slaughter, Seaton and Lamplough won in the order named, all staging lovely blooms. For twelve Hybrid Perpetuals or Hybrid Teas, distinct, Dr. Lamplough won, followed by Messrs. Slaughter and Seaton, who secured second and third prizes respectively.

For six bunches of garden or decorative Roses, distinct, not less than three sprays of each, Mr. H. E. Sugden won premier honours. A very fine display was made in this class.

The Munt Cup was offered for exhibitors who grow less than 300 trees and staged twelve blooms, distinct. Mr. Alan Searle, Southampton, was the winner; second, Mr. G. Hawkins, Alverstoke; third, Mr. J. A. Foot, Winchester. Mr. Burnett won the silver medal for twelve blooms. Amateurs exhibited strongly and staged splendid blooms throughout.

Sweet Peas made a magnificent display. For six bunches, open to amateurs, Mr. Green, The Polygon, Southampton, was the winner. In the open classes for six bunches, eight and twelve, Mr. Usher, gardener to Sir Randolf Baker, Bart, won first honours, Mr. H. H. Lees, Havant, an amateur, being second. Mr. Usher's blooms were magnificent. He was awarded a certificate of merit for a grand new variety named Doris Usher, after the style of Constance Oliver.

Messrs. Toogood and Sons, Southampton, staged fifty vases and baskets of Sweet Peas in quite a novel way. On an oval, raised base of short, green, growing grass long vases were arranged, and over these, rising to a height of about 9 feet, were arches, from which were suspended the baskets and vases. A gold medal was awarded. The blooms were very fine, too. Mr. Lumley staged a fine collection, Mrs. Lumley, Liberty, Moneymaker, Lizzette Lumley and Buttercup being extra good.

Messrs. W. H. Rogers and Sons, Red Lodge Nurseries, Southampton, filled one end of a large tent with standard Roses in pots, Clematises and their grand new Pelargonium James T. Hamilton. Silver-gilt medal.

Messrs. B. Ladhams, Limited, Southampton, filled one end of another large tent with Roses trained over rustic poles, herbaceous cut flowers and Shirley Poppies. This firm also erected and furnished with suitable climbing plants a beautiful pergola leading to this tent.

Messrs. Sutton and Sons, Reading, had a grand collection of vegetables and Melons; Mr. Burnett, Guernsey, Carnations; Mr. C. W. Breadmore, Winchester, Carnations and Sweet Peas; Messrs. Oakley and Watling, Southampton, floral devices; Messrs. Lilley, Guernsey, Gladioli, Irises and Anemones; Messrs. C. F. Waters, Balcombe, Sussex, and F. G. Bealing, Southampton, Carnations, Begonias and Gloxinias respectively.

Mr. Ellwood, gardener to Mr. Myers, Swanmore House, won Messrs. Toogood and Son's first prize for six varieties of vegetables, and also first prize for a similar number of varieties offered by Messrs. Webb and Sons. Mr. E. Beckett, gardener to Lord Aldenham, was the winner of the first prize offered by Messrs. Sutton and Sons for six varieties of vegetables.

protection of a piece of glass in winter. May be easily propagated by means of cuttings.

P. tangutica. — A curious species from the borders of China and Tibet, where it is said to inhabit open grassy spaces at 11,000 feet and 13,000 feet elevation. The small chocolate-coloured flowers are sweet-scented, and are produced in successive whorls. It has recently been introduced by Messrs. Veitch.

P. Veitchii is a fine hardy species introduced from Western China by Messrs. Veitch through Mr. Wilson. It there occurs at 8,000 feet and 10,000 feet elevation on cliffs and dry banks, approaching the well-known P. cortusoides in foliage and habit. It is, however, of more robust growth, and bears larger flowers of a deep rose colour, with an orange ring at the mouth of the tube. It grows well in loamy soil, and may be increased readily by division of the root.

P. villosa. — A native of the granitic Alps of Styria and Carinthia, this species closely resembles P. hirsuta and P. viscosa, but the leaves are narrower and less toothed. It is also distinguished by the glandular brown hairs with which it is covered. It likes a rocky fissure in half sun, flowering in April or May. P. v. var. commutata is a rare variety from Styria.

P. viscosa.—A variable plant that is found in abundance on the Alps and Pyrenees. It is one of the easiest to grow, and some of the varieties are among the most showy. Generally found growing on granitic rocks, it objects to lime in any quantity, and should be planted in gritty soil or tightly wedged between pieces of sandstone. The flowers vary from deep purple to white.

(To be continued.)

OXALIS ENNEAPHYLLA.

THIS beautiful plant from the Falkland Islands will always be counted among the choicest of subjects for the rock garden. It was introduced to gardens over thirty years ago, and it is worth going some distance to see a well-flowered clump. Well-grown specimens are not quite so frequent an occurrence as one would like, as in many gardens it is regarded as a most capricious subject. For this reason one hesitates to advise amateurs with small gardens to grow it, yet under such conditions I made the acquaintance of a splendid specimen growing upon a tiny rock garden in a provincial town.

The plant is dwarf, the rootstock being in the form of an elongated scaly bulb, from which are produced innumerable glaucous green leaves set at right angles upon very slender pink stems. The foliage is extremely pretty and most interesting, each leaf being quite suggestive of a tiny propeller. The leaflets are wedge shape and in pairs, joined along one margin, the other being free.

The flowers are white with a deep purple stain at the base of each petal, and are carried upon slender stems similar to those supporting the leaves. The flowers appear in June, and are effective for the greater part of the month; nestling among those crinkled leaves they appear like chalices, pure and refined, features that wherever they occur in unison never fail in their appeal to lovers of hardy flowers. Oxalis enneaphylla succeeds in a cool, sandy soil free from calcareous matter; the vegetative growth is generally satisfactory in positions lightly shaded, but the flowers come most generously from plants grown in the open and in positions exposed to a fair amount of sun. A cool rooting medium and abundant sunshine for the leaves and flowers are the principal things needed for the successful cultivation of this charming subject. The illustration represents a specimen that flowered this year in the garden of F. W. Bennett, Esq., Elmhurst, Louth, Lincolnshire. When at its best the clump carried over three dozen flowers.

T. SMITH.

THE ROSE GARDEN.

ROSES VISCOUNTESS FOLKESTONE AND BOUQUET D'OR.

THE two illustrations of the above Roses which appear on pages 337 and 338 are from photographs sent to us by Lady Susan Trueman, and depict these beautiful Roses growing on the Rose terrace at Bayman Manor, Chesham, Bucks. The photographs were taken in June, 1908, when these Roses were in their full beauty. The value of these kinds for planting against open walls to form a sort of cascade of bloom is amply demonstrated, and the illustrations will, we hope, be the means of inducing others to plant these Roses in the same way.

SOME GOOD GARDEN ROSES.

THE CHINESE AND HYBRID BOURBONS.

THE present generation of Rose-growers know little of an almost extinct group called the Hybrid Chinese and Hybrid Bourbon, but those who can recall them will agree with me that we have nothing, even to-day, that will produce a more glorious display of bloom for the time they remain in flower. I allude to such fine sorts as Charles Lawson, Chenédolé, Juno, Paul Perras, Vivid, Fulgens, Blairii No. 2, William Jesse, Mme. Plantier, Coupe d'Hebé, &c. What glorious free-headed standards one used to see of these Roses, laden with a wealth of fragrant blooms that were typical of what a standard Rose should be! And who can forget the huge pot-grown specimens of Charles Lawson, Juno, &c., which Mr. Charles Turner and Messrs. Paul and Son used to exhibit at South Kensington, Manchester and other places! Why, the blooms used to be so thick upon the plants that there was scarcely space for the foliage. Although I have no desire to decry our present-day groups of pot Roses, I maintain there was real skill displayed in the growing and developing of these monsters by the brothers Gater, which probably we may never see again; but if these Roses have gone from our pot Rose shows, surely we need not lose them from our gardens, and no one would ever regret securing some standards of these showy Roses. Not only are they effective on stems, but they make ideal pillar Roses. By planting three plants in the form of a tripod one is assured of a really grand specimen. I would recommend anyone to obtain these Roses on their own roots. They are far more successful, as are all these old-fashioned Roses, than when budded, even though one may obtain at first a plant three times larger. Why does not the National Rose Society try and awaken interest in old Roses by offering prizes for collections of them? I believe if someone would cultivate the Hybrid Chinese as carefully as the present-day show Roses are cultivated, and were to put up a group of them, they would cause no mild sensation, because it is possible to obtain quite huge blooms by careful disbudding and feeding. P.

TOO MUCH RAMBLER.

SURELY it is time to cry "Halt!" when we find a list in the "Rose Annual for 1909" giving names of eighty-eight varieties of Rosa wichuraiana. How can we find places for them all? Moreover, scores of them are not worth it if we could. With these Roses, which are as freely produced as Sweet Peas, raisers would do well to use some discretion and not launch out a novelty because it is pretty; but first let them ask themselves if it is wanted or does it surpass an existing kind. I take it that one reason we plant a rambler Rose is to be effective; but this cannot be said of some of the varieties in the list named, although the buds and blooms are individually pretty. In my opinion the Dorothy Perkins type, in other colours, is the one to emulate, and if these can be obtained in maroons, reds and yellows, so much the better for our gardens. I am glad THE GARDEN did not lend itself to the sensational style of some of the daily papers over the "Blue Rambler" recently exhibited. As shown it was a very poor thing; but it is not fair to any rambler Rose to exhibit it upon indoor plants, because the colours are vastly different outdoors. I remember this was the case when Lady Gay first came out. Grown inside it is a soft pink, outdoors nearly red.

ROSA.

OXALIS ENNEAPHYLLA IN A LINCOLNSHIRE GARDEN.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Up to the present spring-sown Sweet Peas have been behaving very badly indeed, the heavy rains and cold weather experienced at the end of June having a very serious effect on the plants. Bud-dropping has been more prevalent than ever, but the plants are now recovering and some good blooms are being produced. Those beginners who have to pack for market or exhibition should take care that the flowers are dry at the time of packing, otherwise they will arrive at their destination in a spotted and ruined condition. Seedlings of such plants as Wallflowers, Canterbury Bells, Columbines and other biennials and perennials that were sown as advised a few weeks ago are now growing rapidly and will soon be large enough for pricking out. In the meantime all weeds must be kept down, otherwise the young plants will be partially or wholly choked. Violet plants at this season frequently suffer very much from attacks of red spider, a tiny pest that feeds chiefly on the under-sides of the leaves, particularly during a prolonged spell of dry weather. Its attacks can be best prevented by thoroughly watering the plants at frequent intervals and well spraying the foliage, particularly the under-sides, with clear water every afternoon.

Vegetable Garden.—Runner Beans are at present growing very rapidly, and already a few flower-buds are visible on the earliest-sown rows and those planted out from pots. During dry weather these plants must be given copious supplies of water, otherwise the buds will drop just before or as soon as they open and no pods will set. In the North of England and in Scotland the first sowing of Cabbages for spring use may be made; but in the South it will be well to wait another week or two. Choose a reliable variety, preferably one that is known to do well in the locality, and scatter the seed thinly on a well-prepared and finely raked seed-bed in the open. It is almost certain that frequent waterings will be needed to induce the seeds to germinate, and when the seedlings appear care will be needed to ward off attacks of the flea beetle, a small black beetle with highly developed jumping powers and which eats the young seed leaves quite away. Dusting the seedlings when damp with fine coal-ashes or even finely sifted dry soil is the best preventive as yet known.

Fruit Garden.—Push on the work of layering Strawberries, as the sooner this can be done the better will be the crop produced by the young plants next year. For particulars see page 316 in the issue for June 26. Where Apples have set thickly, no time should be lost in removing the worst shaped and most badly placed specimens, as the sooner they are off now the better. It needs a stout heart, especially in a beginner, to remove fruit prematurely; but the Apples left and also the tree will benefit considerably if this is done early. Grapes in ordinary houses will now be stoning, and more air should be admitted at this period, taking care, however, to avoid extreme draughts. Ventilation, too, must be afforded early in the morning before the sun gets very powerful, otherwise scalding of the fruit and foliage will result.

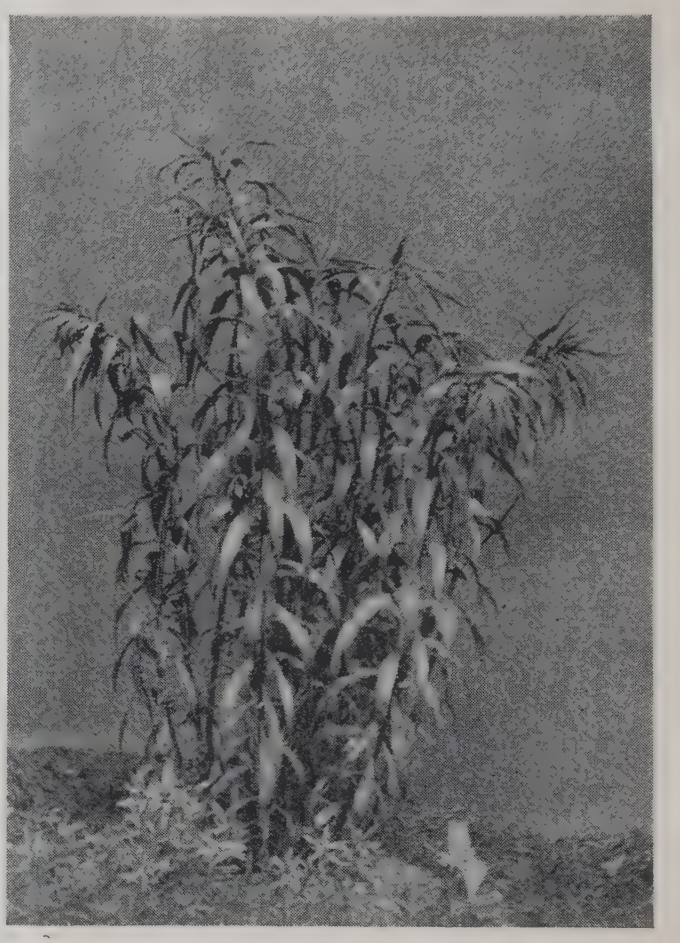
Greenhouse and Frames.—The old-fashioned large-flowered Pelargoniums so beloved by our forefathers are not now so extensively grown as they were some years ago, yet one frequently finds a few plants in the greenhouse of the amateur, who usually has a simple way of treating the plants with good results. As they go out of bloom the plants should be stood outdoors in a sunny position to enable the wood to become thoroughly ripened. The water supply must also be lessened gradually, so as to induce the plants to go to a well-earned rest. If it is desired to increase the stock, cuttings may be taken off now, these being made from young shoots and inserted in pots of sandy soil and stood in a cool corner of the greenhouse, where they will quickly root. Where green fly or other insect pests are present, the house should be fumigated twice, allowing a week between the two operations; then any insects that hatch out after the first treatment will be killed by the second. I have found West's W-e-o-n excellent for the purpose, and, in addition, it has the advantage of being applicable and effective as an insecticide as well as a fumigant. H.

1.—THE WRONG WAY TO STAKE AND TIE A PLANT. NOTE HOW UGLY IT LOOKS COMPARED WITH FIG. 2.

THE RIGHT AND WRONG WAY OF STAKING PLANTS.

ONE of the first things that the beginner in gardening who attempts the culture of perennial herbaceous plants learns is that they need some artificial support to prevent their shoots being blown about and badly damaged by wind, a condition that quickly results where the wind is accompanied by heavy rains. Having ascertained this, the novice usually looks about for ways and means of providing this support, and the natural and most simple way out of the trouble is to push a large stake into the centre of the group, and then tightly tie all the growths to it the same as may be seen in Fig. 1. By the end of the season, however, the grower will not feel at all satisfied with the result of his labours—that is if he is imbued with the true gardening spirit. He will find that the leaves that were thus crowded up in the centre of the clump are all dead and decayed, and what flowers are produced will be of a very inferior character.

Apart from this, there is the appearance of the plant to consider. The plant treated in the barbarous manner shown in Fig. 1 is one of the Golden Rods, and naturally a spreading, free-growing specimen capable of developing into a mass of gold in the autumn. Instead of tying it up as shown in the first illustration, the beginner should deal with it as shown in Fig. 2, which represents the same plant properly staked and tied. It will be noticed that each shoot stands out well by itself and that the stakes used are scarcely visible, one being placed at the inner



2.—THE RIGHT WAY TO STAKE AND TIE A PLANT. BESIDES HAVING A BETTER AND MORE NATURAL APPEARANCE THE SHOOTS HAVE ROOM TO DEVELOP PROPERLY.

side of each shoot, which is in turn securely but not too tightly tied to it with soft garden twine, Raffiatape or raffia. Treated in this way, each shoot has an opportunity of developing a fine head of flowers and retaining all its foliage in a healthy green state. Very little more time was taken in staking and tying the plant as shown in Fig. 2 than was required to do it in the manner shown in Fig. 1, and a comparison of the two should firmly convince every beginner in gardening that Fig. 2 is better in every respect.

CHINESE PRIMULAS, CINERARIAS AND CALCEOLARIAS.

I DO not intend to deal with the cultivation of these plants in detail, but to refer to the chief points only and give some hints that will prove useful to beginners. I shall never forget, when quite a youth, inspecting some beautiful Calceolaria plants grown by an amateur in his brick frame. The frame in question was a deep one, but well filled with a hot-bed that had been used for propagating in the spring-time. On this

3.—A DAHLIA PLANT THAT NEEDS THINNING CONSIDERABLY.

cooled bed the amateur placed his pots containing the Calceolarias, and the latter did remarkably well. Perhaps some of THE GARDEN readers have old hot-beds in frames, and if they do not wish to use the manure immediately a better position could not be found for the young plants of Calceolarias and Cinerarias.

It is a mistake to attempt to grow these plants in a greenhouse during the summer months on account of the dry atmosphere. There is always a certain amount of moisture in the frame in which there is an old hot-bed, and it is most beneficial to the young plants. The glass at this season must be lightly shaded. For this purpose a small quantity of whiting put in buttermilk and made to the consistency of thin paint will answer the purpose if put on with a paint-brush or a piece of soft cloth. If possible, the frame should face the north or north-east. For

Primulas the frame should face west or south-west. The temperature must be maintained a little higher than in the case of Calceolarias and Cinerarias. In summer-time the two last named cannot be kept too cool, but the Primulas like more heat, though not full exposure to the sunshine. Moisture in moderation is also essential and free ventilation.

Repotting.—For each kind some old mortar rubble may be mixed with the compost, but more with that intended for the Primulas than for the others. The other ingredients must consist of fibrous loam, leaf-soil and well-rotted manure, more loam being used for the Calceolarias and Cinerarias than for the Primulas. In every case the soil must be rather light and thoroughly porous, coarse silver sand or some road drift being suitable for mixing with the loam and leaf-mould. In hot weather examine the plants three times each day, and only water those that require it. It is a mistake to give water when the soil is moist, and equally wrong to allow it to get dust dry. SHAMROCK.

THINNING DAHLIA SHOOTS.

WHERE Dahlia plants are bought from nurserymen in the early summer, there is usually no need to thin the shoots, as the plant itself will consist of one main stem only, which will in due course branch out and form a bushy specimen. But many amateurs keep the old stools or roots over the winter, and if any large increase of the stock is not desired, simply pull each into two or three pieces in the spring, or sometimes leave the clump of tubers intact, and plant them thus in the month of April.

That good results can be obtained from such a system the writer has testified; but it is certain that a vigorous clump, or even a portion of one, will produce far more shoots than are needed, and consequently the grower, if he desires blooms of good quality, must carry out this work without delay. In Fig. 3 a plant with numerous growths is shown. In this instance the clump of tubers was planted intact, and it will be seen that a mass of growths, many of them weak, is the result. With a sharp knife all the smallest and worst placed of the shoots should be cut away just below the level of the soil, retaining about three of the strongest and best placed. In Fig. 4 the same plant is shown after thinning has been carried out, and it will be seen that three stout shoots, placed at nearly equal distances apart, have been retained. These will form a strong, bushy specimen by the autumn, and will be capable of producing flowers of first-class quality. Of course, each shoot will need the support of a stout stake, and in thrusting these into the ground they must be placed so that the tubers in the soil are not injured.

AUTUMN CAULIFLOWERS.

A GOOD stock of Cauliflowers in the autumn is most useful and saves undue inroads being made in the stock of winter greens. I find that many inexperienced cultivators make one of two mistakes, sometimes they make both, namely, have a big batch of plants that are put out too late to be of use, and also another batch which "turns in" too early, when other vegetables are fairly abundant. Now, the best plan is to put out at once a number of plants, such as those of Veitch's Autumn Giant, and also a batch of one or two varieties which early come to maturity—a fit condition to use.

Early London and Magnum Bonum are both suitable and do not require a lot of space to grow in, though the Autumn Giant variety does. In no case must very poor plants be put out, nor those raised rather late; then the period from October to Christmas will be duly provided for. Cauliflowers are more tender than Broccoli, and should not be relied upon after Christmas. Frosts, as a general rule, before that date are not very severe, and a few leaves broken over the flowers are generally sufficient protection. As the plants are not put out to withstand the winter weather, good cultivation must be the rule, so as to obtain fine plants and beautiful plump heads or flowers. SHAMROCK.

THE TOWN GARDEN.

SEEDS TO SOW NOW.—Much interest and care is taken in the raising of seedlings earlier in the spring for obtaining a fine display of blossom from the resultant plants as early as possible in the year. This is a quite natural thing to do; but amateurs in towns do not often think about making later or second sowings, with the object of avoiding having bare borders in the autumn. In town gardens many kinds of plants are not as long-lived as they are in the country, because the conditions under which they grow are more trying. Some seeds of the following plants would only cost a few pence, the labour necessary in raising the young plants would not be at all great, and the results would more than justify it. Phlox Drummondii and China Asters may be raised in boxes and transplanted in due course, afterwards being put out in borders to give the coveted late display of blossom. In addition to the above, seeds of Mignonette, Clarkias, Collinsias, Night-scented Stock and Virginia Stock may be sown in the borders in which the resultant plants are required to bloom. If whole borders are not available for the purpose, perhaps there are odd corners in them and other positions which can be so utilised with very satisfactory results. In all instances early thinning-out of the seedlings is a very important point, because they will, if at all overcrowded, spoil sooner than early, spring-raised seedlings.

WEEDS AMONG SEEDLINGS.—The soil has become very warm, and the recent very acceptable rains have resulted in the rapid growth of all young plants, including the weeds. As a rule, the latter get ahead of the former, and so the cultivator must be on the watch and spend some time every week in pulling out weeds by hand from the seedling beds, using the Dutch hoe freely in any open quarters. It is really wonderful how rapidly young plants will grow after the weeds have been pulled out. The latter extract much good food from the soil and thus rob the border plants; the pulling up of the weeds loosens the soil, and this, if not too severe, admits air and moisture, causing a more robust growth of the seedlings. Furthermore, the town gardener has a grand opportunity now to lessen the number of weeds finally by getting rid of them while small, thus preventing them seeding and causing trouble later on. There is a plant, which many readers of THE GARDEN will know quite well, called "Mother of Thousands." It is a useful and graceful plant for hanging baskets and pots; but I think that many kinds of our common garden weeds may truthfully be given the title of "Mothers of Thousands" too.

NOTES TO BE TAKEN NOW.—The town gardener ought to put down many notes at the present time of successes and failures experienced during the past spring, and also of different kinds of plants that are doing well now. There are few kinds of climbing plants, for instance, that surpass, for town gardens, Clematis montana. Rose Carmine Pillar blooms with it, and the two in conjunction make a very charming display. It does not take a very long time to get both kinds of plants established, and as they are strong growers they quickly cover a very large space, and are especially suitable for covering buildings, pergolas, arbours and fences.

SALADS.—The season has now come when all kinds of salad plants are very much appreciated. There are a few kinds that may be grown in very small gardens; only a tiny border is needed for them, as small sowings will suffice to give a fairly good supply of fresh plants. Lettuces may be raised in one small bed and the seedlings transplanted to another; Radishes also may be successfully grown in a corner where the soil is deep and light, the Turnip-rooted varieties being very suitable. Mustard and Cress should be grown in boxes if there is not an available border; the seeds must be sown thickly on the moist surface of some rich soil, pressed down into it with a piece of clean board, but not covered with soil. AVON.

4.—THE SAME PLANT AFTER THE SHOOTS HAVE BEEN PROPERLY THINNED. NOTE THAT THE THREE SHOOTS LEFT STAND WELL APART.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

ROSES.—At this season it will be very interesting to observe which of the numerous and widely contrasted Roses come into flower first and the length of time they keep on blooming, so that for certain purposes masses of colour may be had at one time. Notes should also be made of any which may not be suitable, and varieties selected when in bloom to fill their places at the proper time for planting. Climbing Roses on arches, if in a healthy, vigorous condition, should now be throwing up strong growths from the base to furnish a supply of flowers next year. Let these be made secure before they get damaged by wind. If more are springing up than will be required, they may be removed early to encourage those retained to build up strength. If the land is light, applications of liquid manure will be of great assistance to growth; but let this be given in sufficient quantity to penetrate the soil to a good depth, otherwise it will be of little service.

Pansies and Violas.—These must be given a heavy supply of moisture at intervals should the weather prove dry, and if the soil is light a top-dressing of very short, well-decayed manure will prove highly beneficial in assisting the plants to produce a long supply of bloom. Propagation may also be taken in hand. Small offsets make the best plants, and these ought to be inserted on a shady border and kept well supplied with moisture.

Violets.—Keep these free from weeds and runners. Syringe the foliage freely during dry weather, and if red spider appears use a weak solution of Gishurst Compound or some other suitable insecticide until the pest has been thoroughly eradicated.

HARDY FRUITS.

Strawberries for Jam and Preserves.—For this purpose those varieties of good colour and medium size are the most suitable to grow. Keen's Seedling and Vicomtesse Héricart de Thury are excellent. The fruits should be gathered when perfectly dry and without the stalks. Do not bruise the fruits more than is necessary, and take them as soon as gathered to where the jam is to be made. Fruits for travelling should also be gathered when perfectly dry and not too ripe. Pack each fruit tightly in a single leaf resting on a layer of cotton-wool or some other soft material and one layer thick. When the box is filled, lay a covering of soft and pliable Vine leaves over the fruit and then a sheet of tissue paper For a long distance it is most essential that the fruits cannot shake in the box. Cord several boxes together and label them with red ink "Fruit, with Care."

Peaches.—Early varieties which ripen by the end of the month and the beginning of August must receive every attention. Feeding on shallow borders must not be neglected to increase the size of the fruits. Do not over-crop, and expose the fruits as much as possible to assist the colouring. A heavy deluging of water to all wall trees carrying heavy crops will do much good.

KITCHEN GARDEN.

Celery.—Get out the plants as soon as possible and see that the roots are well moistened when lifting them. Plant carefully and water freely in dry weather. Dust the leaves frequently with soot and wood-ashes, and syringe with quassia extract to prevent the fly and maggot.

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Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

THE PLEASURE GARDEN.

FLOWERING TREES AND SHRUBS.—These, as a matter of course, with age and vigorous root-action are disposed to outgrow the space and position originally allotted them, to the detriment very often of other subjects, but more particularly to the obstruction they form when growing near walks and drives. Any pruning to rectify this is best carried out at this season or as soon hereafter as is compatible with the flowering of any particular species or variety. The knife or secateurs are best for this work, and if deftly handled no disfigurement and but slight interruption of the natural contour will accrue to the plant. The Lilac, Philadelphus and Cytisus families are the chief offenders in this respect among common shrubs; but many others more rare are greatly benefited by having unduly vigorous shoots removed from time to time.

FLOWER GARDEN.

Beds and Borders recently planted with the customary summer bedders should have the surface soil stirred occasionally, the doing of which will greatly benefit the plants, particularly in periods of drought, and also keep weeds in check. Trailing plants of many kinds will require spreading out and securing to the soil with pins, those made of small wire or strips of zinc being neater in appearance and more easily applied than the wooden hooks of former days.

Lilies, Gladioli and all tall-growing bulbous plants are best supported in good time, the species named requiring a Bamboo stake to each stem and the ligature fixed in such a way that it rises according to the growth of the plant.

VINERIES.

Late Grapes.—As these reach the stoning period the most critical stage for what is known as scalding of the berries is at hand. Some varieties are more subject to injury in this way than others, Lady Downe's being perhaps the worst; but none is entirely exempt under certain atmospheric influences. Slight warmth in the pipes and a circulation of air at all times, increasing this in the morning before the sun becomes at all powerful upon the house, is the safest course to follow. The symptoms are unmistakable, as a brown spot shows upon the berries affected and decay speedily develops.

Watering.—Vines having their roots confined to inside borders require copious supplies of water at this season. This being plentiful, the soil may be left exposed; but if otherwise, a covering 2 inches in thickness of some loose non-conducting material laid upon the surface will greatly assist the management and prove beneficial to the Vines. Manures and stimulants of any kind should be very sparingly applied after this time, for if too much vigour is by this means imparted, faulty keeping qualities of the crop are almost sure to become evident in the early winter season.

KITCHEN GARDEN.

Endive in small quantities may be sown occasionally, choosing a cool site, as on the north side of a wall or hedge. This crop is very apt to run to seed; hence it is not advisable to depend very much upon early sowings.

Dwarf Beans may still be sown, but if in such a manner that frames can be placed over them if necessary in due course, so much the better. Asparagus plants put out this year should have the growths protected against wind. A single stake to each and the growths secured thereto is best, but other plans that will provide the necessary support will readily be suggested to the operator. Broccoli and late Cauliflower are best planted in the early part of July; consequently the situation should at once be prepared by manuring, if needful, and digging.

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Galloway House, Garlieston, Wigtownshire.

BOOKS.

Observing and Forecasting the Weather.*—There is a good deal of useful and interesting information given in this little book, and in such a way as to be easily understood by those who have little, if any, previous acquaintance with meteorology. In the course of seven short chapters, clouds, wind, halos, thunderstorms, weather sayings, the moon and phenological observations are respectively dealt with. In the first chapter the author points out how the study of clouds and cloud changes may serve as helps in forecasting weather, particularly if local conditions be also taken into consideration. As he elsewhere truly says, there are very few weather proverbs which can be depended upon, although a certain amount of truth underlies many of them. There are two popular fallacies to which attention is directed, viz., the influence of the moon on the weather and the fall of thunderbolts. Both are still firmly believed in by a great many people, although long since proved to be virtually non-existent. But so firm a hold have such ideas as these upon the public mind that it will, no doubt, be many years before they cease to be credited.

Dutch Bulbs and Gardens.—The above is the title of a handsome book published by Messrs. A. and C. Black, in which three ladies describe by picture and pen the bulbs and gardens of Holland. The twenty-four coloured illustrations by Mima Nixon give us glimpses of the gardens at Het Loo and typical scenes in the flower season at Haarlem. The letterpress is contributed by Una Silberrad and Sophie Lyell. The former tells us how the different flowers are cultivated, and as one would expect from the author of "The Good Comrade" (an excellent novel with a heroine and a blue Daffodil), we get interwoven with these details interesting paragraphs and pages of history and fiction, combined with an individuality of observation and opinion that certainly add to the charm of the book, even if we think that with a more mature consideration and longer acquaintance they might have been different. Miss Lyell's part deals with the past, and she gives us, as the major part of the appendix, a free translation of Saint Simon's book, "Des Jacintes," published at Amsterdam in 1768, when Hyacinths had become the flower of the day. For the ordinary reader part of the section will, I fear, be a little dry; but its inclusion is justified as an example of the literature of that time and the cultural methods then in vogue. A similar work, which may well be compared with the above, is the Père d'Ardene's "Traité sur la connoissance et la Culture des Jacintes," Avignon, 1759. I have read "Dutch Bulbs and Gardens" and it has interested me very much. I always want to know more about the flowers I grow. It is surprising how a little knowledge of their history increases the pleasure they give us. Miss Silberrad's chapters are full of such information about Hyacinths, Tulips, Daffodils, Iris, Crocus and the bulbs we know so well in spring and early summer. I cannot say there are no mistakes. I wonder, for example, if she has ever calculated what the labour bill would be on large farms if her ideas of covering and uncovering (page 31) were carried out. Also, I am afraid if I gave her a commission to get me a bulb of the true Semper Augustus Tulip of mania days (page 84), she would find it more difficult to obtain than even her heroine did the blue Daffodil, and if she tried to palm off some other variety, I would be able to show her an authentic picture of this famous flower in the coloured plate at the end of Solms-Laubach's "Die Geschichte der Tulpen in Mittel—und West—Europa." Again, is the Iris the flower of all others more grown to-day than in former times (page 60)? I may be wrong, but

* "Observing and Forecasting the Weather." By D. W. Horner, 48pp., 6d. Witherby and Co., London, 1909.

I should have said the Daffodil. Miss Silberrad, however, discriminates in what she accepts. The delicious tale of the dear old bachelor who smokes at meals and in bed (page 112) is all right; but when she records how an English enthusiast told her we can have Daffodils in the open from February till October, she is a little sceptical. (Miss Silberrad, *you*, a novelist! Why the man owns an airship of the Benson's "Lord of the World" type, and he has one garden here and another in New Zealand.) Miss Nixon's pictures are very suggestive and give a splendid idea of bulb-time. Those that especially appeal to me are "Hyacinths Scattered on the Sand," "A Boatload of Fragrance," and the Tulip scene facing page 94, "Whose leaves with their crimson glow, hide the heart that is burning and black below." If I must assume the *rôle* of critic, I would say that the wide stretches of colour have not that sharpness of demarcation which I always seem to see when I look at the mathematically square beds and straight rows which are *de rigueur* in all the bulb farms of Holland.—JOSEPH JACOB.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Daffodils in field (*E. M. L. B.*).—At this time of year you might with impunity mow the whole of the grass area in which you planted the bulbs. It is quite another matter where the bulbs are cut down when in the full-growing state. We do not know whether you require the grass or herbage for cattle, which, as a rule, refuse to eat grass mingled with the Daffodil foliage. We do not know that it is poisonous to the cattle, but they certainly refuse it after having tasted it. It will be much better not to allow the Raspberry canes to fruit this year, and by directing all the energies of the plant to good growth ensure a better result when the plants have become established. The plants will be greatly benefited by a heavy mulching with manure.

Pansy plants dying (*A. E. M.*).—There was no insect-life apparent in the plant you sent, and its sudden collapse may be due to ground fungi or brought about by the heat and drought of early June, which play such havoc with these plants when not fully established. The base of the stems point rather to fungus; but the root-fibres are by no means ample, and may have proved unable to support the plant. In any case avoid a sunny spot for the plants. Bed them out early in the year so that they may become established, and avoid a very rich soil. Give a rather free dressing of lime to the surface soil during the winter months, well forking it in. A cool, moist soil and a shady position are best suited for these plants, with firm planting.

Sweet Peas unsatisfactory (*E. J. P.*).—There is not the slightest doubt that you have erred all along in excessively manuring the soil, and that you have further aggravated matters by the use of nitrate of soda; even with plants in the best of health and vigour 1oz. to the gallon of water is ample, while for those in an unsatisfactory condition, if it were given at all, a quarter of that amount to the gallon would be sufficient. Beyond that, you cannot ventilate the structure properly, with the natural result that you get great extremes of temperature with corresponding fluctuations in the atmospheric conditions. In these circumstances it will only be by the greatest good fortune that you will ever achieve satisfactory results, and unless you can mend matters you would be well advised to try some other plant than the Sweet Pea under glass.

Violas dying off (*Lady S.*).—Slugs and millipedes (Blanjulus pulchellus) were present among the plants, and the damage is probably due to one or other of these pests. Kilogrub or Apterite sprinkled between the plants, care being taken not to touch them with these substances, would probably check their depredations.

White Lupines dropping their buds (*P. B. Halcombs*).—The only conclusion is that the root-action is defective in some way or another, or that the position is either too dry or the soil greatly impoverished. We are presuming, of course, that the plant is not of great age, as this would naturally be a predisposing cause. If the falling of the buds of this particular plant is an occurrence of more than one year, there is a possible local influence at work—insect pest or root canker—apart from the above, of which we have no information. The remedy is to lift and examine the plant in September, and give it a fresh site in liberally treated soil.

Delphiniums flowering twice a year (*Adze*).—There is not much to be gained by encouraging a second flowering of these plants. Certain varieties in certain seasons produce a creditable display, and where this is so the spikes are acceptable enough; but the best flowering is given by those plants which flower but once each year. D. Belladonna is, of course, nearly a perpetual flowering sort, and needs no cutting back to induce it to do so. Should a second flowering be desired, cut the plants down to within a few inches of the soil, and when new growth appears encourage the development of flower-stem by copious supplies of water. Sooner or later, however, the plants suffer from these enforced methods of cultivation, and in the following year the flowering may be weak in consequence.

THE GREENHOUSE.

Clivias (Hippeastrums) after flowering (*D. E. W.*).—When the flowers of the Clivia are faded the old stem may be removed. In the case of large masses which you wish to divide, now is the best time of the year to carry out the operation. It should be done as carefully as possible, yet even then some of the roots will probably be broken or bruised. If only bruised the damaged portion must be cut off, otherwise it will very likely prove to be a seat of decay. After being potted these divided plants must, if possible, be kept somewhat closer than the other occupants of the greenhouse, and also shaded from the sun till the roots recover from the check they have experienced. The name of the leaf you sent is Funkia subcordata. You do not say whether your Azaleas are hardy, in the open ground, or tender sorts grown in pots. They may be cut back now, but in any case you must make up your mind for a curtailed display of flower next season. It is, however, the only way that you can improve the shape of the plants, and in all probability the second season's display will be a good one. If they are Indian Azaleas in pots, it will be a great assistance if they are kept warmer than usual and occasionally syringed after being cut back. This will hasten the formation of young shoots. If they are hardy Azaleas in the open ground, of course this cannot be done.

Treatment of Christmas Roses and Camellias (*L. E. H.*).—Presumably the Christmas Roses are planted in the open ground, in which case the only attention they need is to see that they do not suffer for the want of water. A mulch of manure or decayed leaves will be helpful to them. If in pots, they may be plunged out of doors and be regularly supplied with water. An occasional dose of weak liquid manure will do them good. Newly potted Camellias do not need any stimulant whatever; all they require is to be watered when necessary, while they are greatly benefited by a liberal syringing on the evenings of hot days.

FRUIT GARDEN.

Jargonelle Pear tree unsatisfactory (*C. A. P.*).—The Jargonelle Pear tree is always a free and healthy grower, but does not incline to bear fruit freely until it has attained a good age. The tree should be allowed to extend its main branches without any shortening. The only pruning it needs is to shorten the summer side shoots to within five buds of their base at the end of July, and again to further shorten the same shoots in winter to within two buds of their base. We gather from your letter that your young tree is in good health and making, if anything, too vigorous a growth. This is a clear indication that it is at the same time making roots as strong as are its branches, and as long as this is permitted to go on little or no fruit need be expected. At the end of October you should carefully get at its roots and cut all the strongest through at a distance of 2 feet from the main stem (probably you will find from four to six of these strong roots). From these cut roots will emanate the following summer masses of small fibrous roots, which, instead of producing such strong wood growth, will convert much of it into well-ripened fruit-spurs. It is because the few fruit-spurs produced on the robust growth of your tree failed to properly develop and ripen the blossoms that the flowers withered away instead of forming fruit.

Gooseberry bushes unsatisfactory (*J. J. Frome*).—The leaves have been injured by spring frosts. The shoot appears to have come from a bush in need of manuring and pruning.

Gooseberries going wrong (*H. A. S., Bristol*). The Gooseberries have been badly attacked by red spider. The bushes should be sprayed with a solution of 1oz. of potassium sulphide in three gallons of water as soon as the infestation is first noticed, the spraying being repeated in order to kill the mites hatched from the eggs, which would not be injured by the spraying. No notice will in future be taken of your queries unless you send name and address as per rule.

Diseased Melon leaves (*Melons*).—The leaves are badly infested with red spider. This pest, when once it gets established, is very difficult to eradicate, as there is practically nothing that will kill the eggs, and the mites are protected by the web they spin over the leaf. It would be well to spray the leaves with a solution of potassium sulphide at the rate of 1oz. to three gallons of water and to maintain conditions in the house that are unfavourable to the mite. Whenever the air is dry or the plants get at all dry at the root, as when bottom-heat is applied by means of pipes, there is great danger of the pest increasing very rapidly and gaining the upper hand.

KITCHEN GARDEN.

Obtaining large Potatoes (*J. S.*).—We regret that the objects of your Potato club should be simply to secure the largest tuber by the competitors. It is on a level with the old Lancashire practice of obtaining the biggest Gooseberry. But then, when obtained, what is the good of it? Now, if your club would offer prizes for the best marketable crop and weight from any one root, or from any six roots, the crop to be judged by the proportion of good market ware or table-used tubers for cooking, that would be a really useful work. What is being done now is sheer waste or worse. But for your special object the way to get the largest tuber is to grow such a variety as Imperator or Up-to-Date, to allow only one stem to be produced, to plant wide apart and well mould up, giving the plants about the roots each 1oz. of well-crushed nitrate of soda once a month till the end of August to work into the roots. A sprinkle of guano will also help the plants.

Asparagus unsatisfactory (*J. Grant.*)—No fungus or insect pest could be discovered on the shoots sent. They seem to lack vigour. Are the green stems kept growing through the summer, and is a sufficiency of manure given?

New Potatoes at Christmas (*N. M.*).—The method adopted to obtain young Potato tubers at Christmas is to save good-sized old tubers through the summer in a very cool place, frequently rubbing off the young shoots made from the eyes to check growth. By the winter that form of growth ceases. Then, if the tubers are placed rather close together in a dark place, such as a warm cellar, or in a Mushroom house where it is dark and warm, the tubers being placed on a carpet of soil and gently watered, using tepid water, presently young tubers are formed from the eyes instead of shoots, and these will vary from the size of a pigeon's egg to that of a hen's egg. They may be gathered when thought large enough. Where the demand is considerable,

it is needful to have several batches of old tubers to follow on, as when the first crop is gathered what follows is very small. Slight warmth, darkness and some moisture are essential. Any good, large-tubered variety will do.

The best time to form Asparagus-beds (*Ashford*).—The best time is the first week in April, and one year old plants are the most satisfactory. It is not too late to sow seeds now (if they are sown immediately). The young plants would come in then for planting the beds next spring.

MISCELLANEOUS.

Cut flowers for profit (*B. T. F.*).—We are afraid we cannot hold out much hope to you so far as growing cut flowers and the use of the parcel post as a means of distribution are concerned. Without knowing what flowers you have in mind, whether hardy or greenhouse, you would of necessity, in a village far removed from a railway, have to contend with many delays by reason of late posts or the infrequency of deliveries or other things, all vexatious to yourself and disappointing to your waiting friends or customers. The parcel post would be a good medium for distribution if always reliable and prompt, so that the flowers would be quite fresh when received, and, so far as the towns and near districts are concerned, would be useful enough. The railway is, of course, the quickest and most direct, and the damage to which you refer might be greatly minimised by good packing. Cut flowers in light boxes are usually treated with care if properly labelled and a fairly prompt delivery ensured. Another difficulty with the cut-flower trade from such a standpoint as yours is that of getting the orders for what you have at the precise time the crop is ready, and unless you had large supplies you might be put to considerable trouble in the matter. Roses and Sweet Peas, however, that flower long and profusely are exceptions, and there are others of the same character. Moreover, you would have to anticipate the flowering of your crops and advertise daily for customers, unless you were in touch with many friends who have no gardens and who might become regular, *i.e.*, weekly or bi-weekly customers. The parcel post for small-rooted plants might be different, and there are many things suited for such a trade. As to the profit, that would depend upon the amount of trade; but in this also constant advertising would be required if, at the distance from town and rail which your letter suggests, you are to keep in touch with the world. The only way to establish a connexion with the London flower-shops is to grow something good, let them see it and give some sort of guarantee that you could produce it over a long season and at a moderate cost.

Names of plants.—*A. E. G., Thirsk.*—The variety sent is known as the Green Rose (Rosa viridiflora).——*Mrs. Morgan.*—Ligustrum japonicum.——*Robert Gurney.*—Fragaria indica.——*S. D. Ratinakis.*—Malva moschata alba.——*G. B. P., Tonbridge.*—1, Silene species, cannot name in this condition; 2, Gypsophila species; 3, Calamintha Acinos; 4, Veronica officinalis variety.——*Grain.*—1, Rose Tea Rambler; 2, Scilla peruviana alba; 3, Begonia metallica; 4, Saxifraga Cotyledon × Hostii; 5, Lychnis Viscaria alba; 6, Rose Climbing White Pet; 7, Begonia weltoniensis.——*Sussex Orchis.*—1, Orchis maculata; 2, Habenaria conopsea; 3, H. bifolia.——*Mrs. R. Ford.*—Gladiolus segetum.——*Laguna.*—Apparently a small flower of Ulrich Brunner.——*L. B.*—Calceolaria integrifolia, Hesperis matronalis, Matthiola incana and Austrian Copper Briar. Orchid pod with seeds all gone; they are very small.——*Miss T. d'E.*—Old Red Damask Rose.

SOCIETIES.

RICHMOND (SURREY) HORTICULTURAL SOCIETY.

THE thirty-fifth annual exhibition in connexion with the above society was held in the Old Deer Park, Richmond, on the 30th ult., when a good display of pot plants, vegetables and fruit was to be seen. Unfortunately, owing to the cold and wet weather previously experienced, the Roses and Sweet Peas, which are usually a great feature of this show, were very poor, and very few were exhibited. The committee were fortunate in having a fine day for the show, and a good attendance of visitors was secured. Excellent arrangements were made by the hon. secretary, Mr. W. J. Cook, and his band of willing helpers.

POT PLANTS.

For six exotic Orchids, distinct, H. Little, Esq., Baronshalt, East Twickenham (gardener, Mr. A. Howard), was first out of three competitors with well-grown Cattleyas, Lælio-Cattleyas and Lælias, Lælia Aphrodite alba being especially good. Mr. W. Vause, Leamington Spa, and Mr. Norman L. Smith, East Twickenham, were placed second and third respectively.

In Class 1, for a group of plants in or out of flower and arranged for effect, the first prize went to Lady Waechter, The Terrace House, Richmond (gardener, Mr. H. Burfoot), for a beautifully arranged semi-circular group, which comprised Crotons, Gloxinias, Lilies, Humea elegans, Begonias, Orchids and other plants. Second honours went to Mr. W. Vause, Leamington Spa, whose group was chiefly composed of good foliage plants, the effect being rather heavy.

In a similar class for a smaller semi-circular group there were three entries, first prize going to C. M. Bartlett, Esq., East Sheen (gardener, Mr. H. Hicks). This group contained some good Dracænas, Crotons, Clerodendrons and Caladiums, together with a few flowering plants, the arrangement, however, being too dense to show them to the best advantage. Second honours fell to Mrs. Fitzwygram, Hampton Hill (gardener, Mr. W. Redwood), and third to Mr. W. Vause.

For six Palms, not less than three varieties, Mr. Vause was first with some good and clean specimens, Lady Waechter being placed second for smaller but good plants.

For six Caladiums, distinct, three competitors tried conclusions, first prize going to C. M. Bartlett, Esq., East Sheen, for exceedingly well-grown specimens. Mrs. Vaughan Arbuckle, Richmond (gardener, Mr. H. Lawrence), was second and L. Warde, Esq., Petersham, third.

In a similar class for Fuchsias some very good plants were shown, Mrs. Fitzwygram, Hampton Hill, being first out of three competitors with splendid pyramidal plants. Second honours were well won by Mrs. Cowper Coles, Twickenham (gardener, Mr. H. Keary), and C. M. Bartlett, Esq., was third.

For six Coleus, L. Warde, Esq., Petersham (gardener, Mr. A. Allum), was first, C. M. Bartlett, Esq, and A. Burton, Esq., East Sheen, following in the order named.

For a basket of plants, in or out of flower, arranged for effect, competition was very good, first honours going to L. Warde, Esq., Petersham, H. Little, Esq., East Twickenham, and Lady Waechter following in the order named.

For twelve pots of Streptocarpus there were two entries, first prize being awarded to G. Atkins, Esq., East Sheen (gardener, Mr. W. J. Hill), for splendidly grown plants, all dark blue varieties being shown. Second prize went to A. Burton, Esq., East Sheen (gardener, Mr. T. Quarterman), whose plants were also good and more varied in colour.

For nine Gloxinias, distinct, in pots, the first prize was well won by Lady Waechter with a very even and good lot, the colours being well defined. A. Burton, Esq., was a close second, the flowers in this case being a little drawn.

For six tuberous Begonias in flower there were three entries, first prize going to L. Edwardson, Esq., Belari, Sidcup (gardener, T. Rabbitt), with splendidly grown double-flowered plants. G. Atkins, Esq., East Sheen (gardener, Mr. W. J. Hill), was a very close second, his single-flowered specimens being very good. Third prize was won by Mr. A. Elsee, Hampton Hill.

Messrs. Sutton and Sons' prizes for six plants of Gloxinias were well contested, first honours going to C. M. Bartlett, Esq., East Sheen, for a beautiful half-dozen, E. R. W. Bennett, Esq., Sunbury, and A. Burton, Esq., following in the order named. Messrs. Sutton also offered prizes for six plants of their single or double Begonias, these being won by G. Atkins, Esq., East Sheen, and C. M. Bartlett, Esq.

ROSES.

The Gunnersbury Park Challenge Cup, offered for forty-eight Roses, distinct, three blooms of each, was won by Messrs. Frank Cant and Co., Braiswick Rose Gardens, Colchester, with some very good flowers considering the bad weather of the past. Charles J. Grahame, Lady Ashtown, Captain Hayward, Mme. Melanie Soupert, Joseph Lowe and Liberty were a few, among others, that attracted much attention. Messrs. Cant were the only exhibitors in this class.

For twelve Roses of one variety there were four entries, Messrs. W. and J. Brown, Peterborough, being placed first for a good dozen of Mildred Grant. Second prize went to Mr. Robert Browning, Sunbury, Middlesex, for Richmond; and Messrs. Frank Cant and Co., Braiswick Rose Gardens, Colchester, were third for Lady Ashtown.

For twelve Tea Roses, one variety, Messrs. W. and J. Brown were the only competitors, with small blooms of Maréchal Niel, for which they secured first prize.

In the class for twenty-four Roses, distinct, single blooms (amateurs only), there were two entries, first prize going to W. C. Romaine, Esq., The Priory, Old Windsor (gardener, Mr. J. Guttridge), for a good lot of flowers, among which Mrs. J. Laing, Dupuy Jamain and K. A. Victoria called for special mention. Second prize went to E. Elliott, Esq., Teddington Park, whose blooms were very small.

In a similar class for twelve Roses four competitors entered, W. C. Romaine, Esq., again being the champion with good flowers. Mr. W. J. Turner, Teddington, and C. Elliott, Esq., were second and third respectively.

In the class for twelve Roses, distinct, limited to exhibitors residing in the district, there were five entries, A. Chancellor, Esq., Richmond (gardener, Mr. F. Thornton), being first with moderately good flowers; A. Elsee, Esq., Hampton Hill (gardener, Mr. B. Mason), was second.

In a similar class open only to amateurs not employing a gardener, Mr. W. J. Patmer, St. Margarets, was a good first, his flowers of Mrs. W. J. Grant, Caroline Testout and La France being good; second prize went to Mr. G. J. Favel, Hampton Hill; and third to Mr. J. H. Broad.

For six bunches of garden Roses there were three entries, Messrs. W. and J. Brown of Peterborough being first with very good flowers, Betty, Bardou Job, E. Meyer and the single Dawn being very fine; W. C. Romaine, Esq., Old Windsor, was a good second.

Five exhibitors entered the class for a basket of Roses, first prize being awarded to Mr. W. Hayward, Fife Road, Kingston, for a very beautifully arranged basket, the colours being well blended and the flowers of moderately good quality. Messrs. Lewis and Co., Richmond, were a very close second with a splendid basket, third prize going to Messrs. W. and J. Brown, Peterborough, and an extra prize to Miss C. B. Cole, Feltham.

The prizes for a bouquet of Roses were won respectively by Mrs. Martin, Richmond; Messrs. Lewis and Co., Richmond; and the Rev. W. H. Oxley, M.A., Petersham.

SWEET PEAS.

In Class 57, for six distinct varieties of Sweet Peas, the first prize went to the Earl of Devon, Powderham Castle, near Exeter (gardener, Mr. T. H. Bolton). These were of good quality, Sutton's Queen, Countess Spencer and Crimson King being the best. Second honours went to the Earl of Dysart, Ham House, Petersham (gardener, Mr. T. F. Conway), Constance Oliver being very good here. Third prize went to A. Elsee, Esq., Hampton Hill.

In a similar class for nine varieties, the Earl of Devon was again first, Elsie Herbert, James Grieve and Audrey Crier being particularly good. The Earl of Dysart was placed second and Messrs. W. and J. Brown of Peterborough third.

There was only one entry for the special prizes offered by Mr. Robert Sydenham for nine bunches of Sweet Peas, distinct, this being exhibited by the Earl of Dysart.

The Earl of Dysart was the only exhibitor for Messrs. Webb and Son's prizes offered for six bunches of Sweet Peas, Mrs. Hardcastle Sykes, Miss Collier and Lord Nelson being the best varieties shown.

HERBACEOUS FLOWERS.

Five exhibitors entered the class for twenty-four bunches of hardy herbaceous cut flowers, L. Ward, Esq., Petersham (gardener, Mr. A. Allum), being first with a good lot, in which Lilies, Campanulas, Gladioli and Pyrethrums were well shown. Second honours went to the Earl of Dysart, who also showed flowers in good condition.

VEGETABLES AND FRUIT.

For a collection of twelve dishes of vegetables, distinct kinds, there were two entries, the first prize going to the Earl of Dysart, Ham House, Petersham, with a good collection, in which Peas, Potatoes, Beetroot and Carrots were well shown. In some respects the second-prize group shown by the Earl of Devon (gardener, Mr. T. H. Bolton), was best, the arrangement, however, not being so good. The Peas, Broad Beans, Tomatoes and Carrots in this group were first-class.

There were two entries for Messrs. Carter and Co.'s prizes offered for a collection of vegetables, nine distinct varieties, the first-prize group coming from the Earl of Dysart. Beetroot, Cucumbers and Carrots were very good here. Second prize was won by Mr. R. Keene, Richmond.

The Earl of Dysart was the only exhibitor in the class for a collection of vegetables, six distinct kinds (prizes offered by Messrs. Webb and Sons), and the same exhibitor was first in the class for Messrs. James Veitch and Sons' prizes, second honours going to Sir W. Greenwell, Bart., Caterham (gardener, Mr. W. Lintott). Vegetables were well shown in some of the cottagers' classes, but lack of space forbids detailed mention of these.

For a collection of six dishes of fruit, distinct kinds, the Earl of Dysart was the only exhibitor, the black Grapes, Melon, Peaches and Nectarines being good.

Four exhibitors tried conclusions in the class for three bunches of black Grapes, first honours going to Sir W. Greenwell, Bart., Caterham (gardener, Mr. W. Lintott), for three large and well-finished bunches of Black Hamburgh. W. G. Raphael, Esq., Englefield Green (gardener, Mr. H. H. Brown), was second and Messrs. W. and E. Wells, Hounslow, third.

In a similar class for white Grapes, W. G. Raphael, Esq., was a good first with large bunches of Buckland Sweetwater, Sir W. Greenwell, Bart., and Mrs. Vaughan Arbuckle following in the order named. W. G. Raphael, Esq., was first for nine Nectarines, the varieties being Early Rivers'; and Messrs. W. and E. Wells were first for nine Peaches, medium-sized fruits of Crimson Galande being shown. F. H. Cook, Esq., Guildford (gardener, Mr. A. Mitchelson), was first for a single Melon.

Four exhibitors entered the class for two dishes of Strawberries, Messrs. W. and E. Wells, Hounslow (gardener, Mr. G. Thompson), being first with good examples of Royal Sovereign and Leader. H. Riley, Esq., Kew Gardens, was second with the same varieties, the Earl of Dysart being third with The Laxton and Royal Sovereign.

NON-COMPETITIVE EXHIBITS.

Mr. W. H. Page, Tangley Nurseries, Hampton, showed a very fine group of Carnations and Lilies, a beautiful mass of rambler Roses being placed at each end. The flowers shown were all of very good quality indeed and comprised all the best-known Carnations. Gold medal.

Messrs. T. S. Ware, Limited, of Feltham had a splendid display of herbaceous cut flowers, Eremuri, Pæonies, Lilies, Heucheras, Phlox White Swan and many others being staged in good condition. Tuberous Begonias were also well shown by Messrs. Ware, the large blossoms and bright colours of these attracting much attention. Gold medal.

Messrs. W. and J. Brown of Peterborough staged a small group of well-grown Roses, Mrs. W. J. Grant, Richmond, Dr. J. C. Hall, Lady Battersea and Pharisaer being in splendid condition. Silver medal.

Mr. L. R. Russell, Richmond, staged a large group of hardy flowering and foliage shrubs, these being displayed in a most tasteful manner and comprising many choice things. Gold medal.

Mr. H. E. Fordham, Twickenham, arranged a fine semi-circular group of Gloxinias on the floor, these being of good quality and embracing many beautiful colours. Silver medal.

From Mr. William Thompson, Sheen Nurseries, Richmond, came a well-arranged group of Japanese Maples, Palms, Ferns, Hydrangeas, Pelargoniums, Roses, &c., the whole forming a very handsome exhibit.

The beautiful group of Roses and Lilies in pots shown by Messrs. J. Veitch and Sons, Limited, Chelsea, was a centre of attraction the whole afternoon, plants and flowers being of high quality and the arrangement quite up to the firm's usual high standard. Gold medal.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

ROSES FOR AUTUMN FLOWERING.

DESPITE the good work done by the National Rose Society, in later years especially, and the high-class gardening journals alike, there are far too many people who appear to be still imbued with the idea that June and June only is the month of Roses.

Although years ago such an opinion was only too well founded, all that is now changed, and it is easily within the power of all not only to have Roses in June, but, given fair treatment, ordinary weather and suitable varieties, to enjoy them in quantity until well into November. One would go further and say that, although nearly all varieties produce their largest and finest blooms early in the season, yet one sees in the Roses of autumn a freshness—a richness of colour, due, no doubt, to the lessening power of the sun and the heavier dews—which the July Roses too often lack. Who that has gone out early into the garden on a September morning and has picked a spray or two of Grüss an Teplitz in its scented loveliness, or of Lady Ashtown in her wonderful pink, but has straightway resolved, come what may, to have just one more bed?

Much of the increased interest shown in autumn Roses of late years is due, no doubt, to the tremendous growth of the Hybrid Tea, which, as the name betokens, combines with the hardiness and strength of the Hybrid Perpetual the free-flowering propensities of the Tea. But a short sixteen years ago this class was practically non-existent; now we have gone to the other extreme, and are in danger of overlooking the good qualities of the Hybrid Perpetual with its at present unmatched colour and fragrance. As an illustration of the tremendous strides this section is making, one notes that, of forty-one new Roses catalogued by a leading grower last autumn, no less than thirty-six were Hybrid Teas.

Yet another reason for the belief that Roses bloom but for a short season is doubtless the delightfully off-hand manner in which, at the shows, the uninitiated jot down the names of the most striking blooms without taking the slightest pains to find out whether they are easy to grow, good autumnals, or, indeed, of any use at all except to be where they are—lending distinction to an exhibitor's box. The old saying, "A little knowledge, &c.," is nowhere truer than at Rose shows, and one hesitates to think of how much evil the Mme. Gabriel Luizets of the Rose world have wrought to persons with ideas on Roses in autumn.

Faulty treatment has also a good deal to do with poor and unsatisfactory autumn results. It cannot be too strongly impressed that t quantity of bloom brought to perfection in Ju greatly taxes the strength of the trees. Neve theless, how often does one rest on one's oars, to speak, and, flushed with the wonderful Ju display, forget that it is just at this time th assistance should be given to the plants to enab them to renew their strength and give free again of their delights in the autumn! that end a liberal feeding with some approv liquid stimulant must be given, repeating t application at about fortnightly intervals, ev remembering that all manuring must be pr ceded by heavy rain or artificial watering—a least a gallon to each plant—or the roots will injured.

If from consideration of storage chemic manures are used, choose for the first these feedings one containing nitrogen some form or other as its chief constituen as at this particular period it is grow that is wanted, not flowers, and no nitrog spells poor growth, and poor growth poor flowe Do not attempt to save labour by giving t liquid at double strength, making one appli tion do duty for two. That causes trouble a does not save it. A little and often should be on principle, and not more than half an ounce one gallon of water be given the plants, t quantity to each depending on its condition hardly any at all to the weakest, up to half gallon each to those in full vigour. Liquid fr natural manures, that from sheep being the m valuable, should be diluted to a pale straw col before using in like quantities. Roses, as we feel the better for a change of diet, and it is d tinctly good practice to fix on two or th manures, natural or chemical, giving th alternately rather than feed with the same k time after time.

One should, however, take care not to g manure, of a nitrogenous nature at any ra after August is past, as the resultant fresh grow from later applications will probably not ripened before frost cuts it down, and the sent up by the roots be wasted. Soft water that from a pond warmed by the sun, sho always be used; failing that, tap water stood tub in the open for a couple of days is a substitute. To use hard water straight from main is a very certain cause of mildew, rosarian's worst enemy.

Much good can be accomplished by regular continuous hoeing, and if Rose beds w hoed more and watered less the results would more satisfying. Half the benefit of a he summer rain is wasted if the ground is not p over the day following, and by thus breakin the cracks conserve the moisture.

t is just after the first rush is over early in y that mildew usually appears in its most ulent form, as if in their enfeebled state the nts cannot fight against it, and if permitted remain unchecked it will soon cover the ves and stems with its greyish mould, causing prospect of autumn blooms to be very iously jeopardised. The causes of mildew are parently almost as numerous as the reputed es. Besides the one previously stated, a posi- n too much enclosed or a sudden change of nperature are common causes; but as, whatever y be the actual reason, it, and most other eases which the Rose is heir to, first attacks weakest plants, it should be one's endeavour good culture to make it as difficult as possible an enemy to obtain a footing. Of the various nedies there is nothing to beat in small collec- ns a vigorous rubbing of the infested leaves th thumb and finger. For larger numbers wers of sulphur dusted on when the leaves damp is good, or one of the several advertised ngicides, such as Mo-Effic, may be sprayed over, t whichever be tried must be considered as a eventive and not as a cure, and used accordingly. With but few caterpillars to contend with er July is out, the chief worry after mildew is his. Waste no time in preparing washes, but l all on sight with finger and thumb; and with e forcible syringing of out-of-the-way branches, ng soapy water, they may be easily kept in eck.

In considering the question of autumn Roses, point is of greater importance than the proper ection of varieties. Speaking generally, one's oice should be confined to thin-petalled, semi- uble sorts, such as Frau Karl Druschki, as e heavy dews prevalent late in the season litate against the proper opening of those th thick, fleshy leaves. It would, perhaps, be nsidered that, with the numberless varieties nt out in late years, every possible need has en catered for, but one feels bound to ask why e hybridisers have not turned their attention perpetual climbing Roses. Of course, there e a few—a very few—useful sorts; but there is doubtedly a great dearth of real autumnal omers. What is wanted is the crossing of the churaiana and Polyanthas with the Hybrid as and the high-coloured Perpetuals; then th autumn-flowering Dorothy Perkins and awatha and Climbing General Jacqueminot en the most ardent rosarian would probably t satisfied. One such crossing has already en successfully effected, and the welcome ich will be accorded Trier when it becomes nerally known will assuredly encourage the bridist to further efforts in the same direction. The following list of thirty-two first-class tumn Roses could doubtless be lengthened, t one can only suggest that much greater isfaction is likely to be obtained from the plicating of a few tried varieties rather than perimenting with a larger number not so well orted: White and blush—Frau Karl Druschki, Nabonnand, La Tosca, *Mme. Alfred Carrière, issardii, *Trier and †Cecile Brunner. Yellow ades of)—Gustave Regis, ‡Frau Lilla Rauten- auch, *Alister Stella Gray, †Antoine Rivoire, d †Perle d'Or. Pink (shades of)—‡La France, aroline Testout, Corallina, ‡Dean Hole, Earl Warwick, Gustave Grunerwald, Lady Ashtown, ne. Abel Chatenay, Mme. Jules Grolez, Mme. n Pain and Princesse Marie Mertchertsky. ricot—Betty and Irish Elegance. Crimson— ovier, Fellenberg, *Françoise Crousse, ‡Grüss Teplitz, ‡Hugh Dickson, G. Laing Paul and gworth Rambler. * Climbers. † Pompons edging. ‡ Standard.

WALTER BENTLEY.

ield End, Eastcote, Middlesex.

FORTHCOMING EVENT.

uly 28.—THE GARDEN Flower Show, Horti- ural Hall, Vincent Square, Westminster. nission free.

NOTES OF THE WEEK.

Presentation to Mr. G. Bunyard, V.M.H.—A very interesting souvenir of the jubilee of the Royal Horticultural Society's fruit committee was seen at the presentation to the chairman of that body and an eminent pomologist, Mr. G. Bunyard, of a very handsome, greatly enlarged portrait of himself represented in the robes of office as Master of the Fruiterers' Company, a post he held a few years since. The presentation was enthusiastically subscribed to by every member of the fruit committee, and a large number attended the presentation, which took place in the lecture hall of the Royal Horticultural Society on the evening of Wednesday, the 7th inst. Mr. A. Dean, who had organised the presentation, briefly described the circumstances of its origin, and invited Mr. A. H. Pearson to make the presentation. This was very gracefully done, and Mr. Bunyard very feelingly accepted it. The portrait was enlarged and framed by Mr. Bernardi of Fife Road, Kingston-on-Thames. It is, we learn, to ultimately hang permanently in the offices of the Royal Horticultural Society.

The Jubilee Celebration of the Fruit and Floral Committees of the Royal Horticultural Society. What should have proved to be an event of more than usual horticultural importance—the celebration of the fifty years of existence of the above-named committees—was last week very much overshadowed by the holding of the truly great flower show of the Royal Horticultural Society in Holland Park. But while such a great flower show occurs but once a year, and is largely an exhibition of the progress made in horticulture from year to year, the work done by these important committees goes on all the year round, and if of a plodding nature, it is yet essentially practical and valuable. Largely these committees constitute, as it were, the watch-dogs of horticulture. They guard the gates against the introduction into it of false or worthless matter, for the certificates or awards of these bodies become the hall-mark of excellence and fitness in new or improved products. It was, therefore, but natural that, because the fruit committee was instituted in 1858 and the floral in 1859, the council of the Royal Horticultural Society should feel it incumbent to mark these jubilees jointly by inviting the members to dine together at the Windsor Hotel, Victoria Street, Westminster, on Wednesday of last week, an invitation that was very largely responded to. It cannot be said that the speeches made or the general conduct of the celebration, which was very dull, rose to the interest or importance of the occasion, but possibly it represented the council's enthusiasm. Sir Trevor Lawrence, V.M.H., presided and proposed the health of the members of the committees, which was responded to by Mr. G. Bunyard, V.M.H., on behalf of the fruit committee and by Mr. Marshall, V.M.H., on behalf of the floral committee. Generally the speeches were more personal or anecdotal than horticultural. A splendid opportunity to review the work of the society and its committees during the past half century was lost. The fruit committee originated in the British Pomological Society, which in 1858 became allied to, or a part of, the Royal Horticultural Society, and in its earlier days, as has been the case down till now, included in its membership all the best-known fruit and vegetable growers or exhibitors of the kingdom. Having established a fruit committee, it was but natural that a floral committee should follow; and that both bodies have well justified their existence their records plainly tell. To-day the work done by the floral committee is enormous, and if the fruit committee has less to do, that is due to the fact that fruit and vegetables develop far more slowly than do, if more gorgeous, at least much less useful, flowers. The work of the committees is not confined to the Horticultural Hall, as there is also much done in examining trials at Wisley Gardens also. The Orchid, Narcissus and scientific committees are of more recent origin, but all do good work. No other horticultural society in the world has such able forces at its disposal as is presented in the membership of the Royal Horticultural Society's committees.

Designs for Wrexham Public Park.—Recently the Town Council of Wrexham invited competition in designs for the laying out of their public park, and the first premium for the best design has just been awarded to the well-known landscape gardeners, Messrs. J. Cheal and Sons of Crawley, Sussex.

Damage by the stem eelworm.—The Board of Agriculture and Fisheries has received information as to the damage done to the Oat crop during the present year by the stem eelworm and the frit fly. The Board desires to inform farmers and gardeners that copies of leaflets on the subjects may be obtained gratis and post free from the Secretary, Board of Agriculture and Fisheries, 4, Whitehall Place, London, S.W. Letters so addressed need not be stamped.

Old-fashioned Roses in South-west Scotland.—In the many old gardens in the south-west of Scotland the old Roses have been preserved undisturbed, save in the way of cultivating them by giving them manure from time to time. Now, when Roses of all kinds are so much admired, the older varieties are renewing their youth so far as favour is concerned, and many of them are being sought after. In some of the old gardens referred to, such as Kirkconnell, Newabbey, the garden of Colonel Maxwell Witham, C.M.G., there are many old plants which have been in the garden for generations. In various gardens there are others, such as old Scotch Roses, Damasks, Centifolia and Provence and Gallica Roses, also huge plants of the old climbers. Kirkennan Garden, the property of Mr. Wellwood Maxwell, is another where there are numbers of old flowers, and the district must have a good many varieties now unrecognised, seeing that the names have been lost, and there are few named collections in existence to compare with.—S. A.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Rose Mildred Grant.—A few months ago, in a most interesting letter on Roses from one of your correspondents, I noticed that he said he had not been able to grow Rose Mildred Grant satisfactorily. At that time I had also tried to grow the same Rose for three seasons and had not succeeded really well. But last autumn I got a dwarf plant on the De la Grifferaie stock and it has done splendidly. Both blooms and foliage are perfect this year. I would tell your correspondent anything he might like to know about the Rose, for it is such a pleasure to have it right at last.—MARY W. BATE, *Kings Norton.*

Fruit bottling.—As a constant reader of your paper, I have been reading Miss Clayden's article on fruit bottling in your issue of July 3, and thought it might interest many of your readers to know that a cheap apparatus is to be bought that entirely does away with all the trouble of covering, corking, &c., as well as the copper fire. It can be had from Mr. Beckett, Upwell, Wisbech, and I can vouch for the fruit, &c., keeping and tasting at Christmas exactly as if fresh gathered from the garden.—EAST ANGLIAN.

Perpetual-flowering Carnations. The flowers sent herewith have been grown in a small unheated greenhouse facing east, where the sun never shines after 9.30 a.m. till late in the afternoon. You will notice they have not been disbudded at all, the unopened bud beside each

flower adding, in my opinion, greatly to its beauty. It is, perhaps, only fair to say the plants have had the advantage of Low's Carnation Fertilizer. The varieties are Jessica, Britannia, Enchantress and White Enchantress. —B. B.

Aspidistra leaves splitting.—Noting your answer to a correspondent on page 332 of THE GARDEN concerning the splitting of Aspidistra leaves, I may say that my experience of the matter is that plants which in potting have the rhizome, or underground stem, buried too deeply in the soil are very apt to push up split leaves. Stagnant moisture at the roots often has the same effect. Deep potting is, however, I am convinced the most fruitful cause of this trouble. In potting, the rhizome should be about half an inch below the surface of the soil.—H. P.

A note on Daffodils.—Now that many of your readers' thoughts are turning towards the future Daffodil season and thinking of ordering, or, perhaps, have ordered, bulbs for their gardens and grounds, I send you a photograph of masses of Narcissi taken in their full bloom. Horsfieldii is the most in evidence in it, and the large mass of this excellent Daffodil made a grand picture. Katherine Spurrell is in front. Near by was a large quantity of Nelsonii major growing under the friendly shade of large Nut trees and content with their undisturbed condition, having now been many years in this position. The climate of Ireland seems particularly well suited for nearly all of this family, and grown in grass their annual increase is not such a burden on the owner as is their development in garden soil, which necessitates a lifting, thinning and replanting in order that the bloom may not be diminished, as it surely is when the bulbs become a "congested district." —J. HILL POE (Captain), D.L., *Riverston, Nenagh.*

Unpruned Rose bushes. There must be many lovers of Roses interested in "P.'s" note on the above subject, page 327. That there are Roses which are more charming when left to grow at will cannot be doubted, and I think some may be found in other than the Tea class. I have recently seen a bush of La France which has not received any pruning for years (if ever), yet some grand blooms have been cut from the same, and at the time of writing there are numerous buds giving promise of many more equally as good. This bush appears to be practically on its own roots, and is growing in a deep, rather light soil. No manuring of the soil in any form whatever during the present season has been given, and for several years past all the attention it has received in this way has been a light dressing of manure forked in around the roots as the work of digging the ground surrounding the bush was being carried out. The bush is about 4 feet in height and about the same in diameter. A much larger specimen near by of William Allen Richardson has been a grand sight for weeks. This plant was originally trained to a wall, but for a number of years has been allowed full freedom, with the result that a huge bush literally covered with flowers is a sight to be remembered. Speaking of this matter to a friend, he gave me particulars of a large plant of that beautiful Rose Catherine Mermet. The Rose was growing in a large box in an unheated greenhouse. No pruning other than cutting a long stalk with each bloom as it was gathered was ever afforded the plant, yet the quality of the flowers was excellent and they realised a good price. An annual top-dressing of loam and rotten manure was in this case applied in spring. I had formerly under my charge a number of Tea and China Roses which were very lightly pruned, simply the very weakest shoots entirely removed from the centre of the plants, and the masses of flowers of good quality annually produced entirely justified this treatment. It is only fair to add that the soil was very suitable for Roses and the position sheltered.—C. RUSE.

IRISH NOTES.

THE VICTORIA REGIA at Glasnevin has been particularly good this year, filling the whole tank with leaves over 7 feet across, the upturned rims being 6 inches high. Adjoining the water house is the Cactus house, which has special interest this year. Climbing up the roof is a large-flowered Solandra, which has turned out to be a new species, but is unnamed as yet. Near by is a Fouquieria belonging to the Tamariscineæ, in appearance like a spiny Euphorbia, bearing terminal racemes of red flowers. Among a group of Cactus is

Strelitzia juncea in flower. The flowers are blue and orange, similar to S. Reginæ, but the foliage is like a strong glaucous Rush, 5 feet high. The true leaves are only 2 inches or 3 inches long and wither to a point as the stems grow older.

Dimorphotheca aurantiaca, an introduction of Messrs. Barr and Sons from South Africa, makes a glorious group. This annual is easily grown, but requires sunshine to show its full beauty. Seed was sown in early March, the plants potted on as required until their final move into 6-inch pots, and grown in a cool house, then transferred to a cold frame. In another house

Hæmanthus Katharinæ, from Natal, is exceptionally good. The large, globular heads of bright orange flowers are borne on sturdy stems 2 feet to 3 feet high. Two other new plants may be seen in the houses,

Berberis arguta, described in THE GARDEN last year, and *Malvastrum hypomadarum*. The latter, though not a very showy plant, is nearly always in flower. Near the entrance to the gardens

Cratægus tanacetifolia may be seen in full flower. The tree is one of the finest in the United Kingdom, being 30 feet across by about 27 feet in height. It is a decidedly ornamental tree and the air is laden by its sweet Almond fragrance.

Tricuspidaria lanceolata and *Carpenteria californica* have passed the winter safely and are now flowering freely. The Carpenteria is 5 feet high and rarely fails to make a good display with its snow white blossoms.

Fabiana imbricata is also very good. It makes a well-shaped bush in the open, and covered with its tubular white flowers and Erica-like foliage is very telling. Against a wall is a fine plant 11 feet high. The

Olearias thrive wonderfully well and seem to enjoy the mild Irish climate. O. stellulata is in this country quite a common shrub, and flowers so freely as to hide the foliage; bushes 5 feet to 6 feet through are sometimes to be met with. Olearia macrodonta here makes a bush 7 feet high and is flowering freely. The leaves are Holly-like, and the ray florets are white with brown tubular florets, small but borne in large clusters.

An importation of New Zealand plants was made last autumn with medium success. A few are now in flower. Craspedia uniflora is a very distinct composite with dense yellow heads of flowers. The leaves form a rosette; they are from 3 inches to 6 inches long, hairy on the upper surface, and covered with a dense white tomentum on the under surface with a clear white margin. The flower-stems reach to a foot in height. Each stem is terminated by the solitary globose inflorescence about 1 inch to 1½ inches in diameter. The florets are all tubular, the rays being absent. Craspedia alpina is very similar in growth and habit, but the flowers are white, the leaves being also a brighter green.

Another New Zealand plant, Senecio lagopus, is in flower. The leaves are oblong and crinkled, about 3 inches to 5 inches long, the under surface covered with a dense felt of hairs. The flowers are bright yellow, three-quarters of an inch to 1 inch across, borne on branching stems about 9 inches to a foot in height. Plants raised from seeds sown in spring will flower the following season. If the plant proves hardy it looks as if it will improve when established. The Senecio and the two Craspedias are planted in a sunny place on the rock garden.

C. F. BALL.

DAFFODILS IN AN IRISH GARDEN.

THE FRUIT GARDEN.

MUSCAT VINE LEAVES DISEASED.

[*In answer to a Correspondent.*]

WE had a similar experience to yours a few years ago, but in our case it was a whole house of Muscats. The Vines prospered for a few years after planting and bore heavy crops of fine fruit. The failure in our case was undoubtedly due to over-cropping before the Vines had formed a sufficient body of permanent roots to sustain the strain of bearing heavy crops. In the sixth year they exhibited exactly the same symptoms as yours do, judging by the specimen leaves sent. There is no disease that we can trace in the leaves, neither are they infested with insect or fungoid pests. The spots on the leaves, we suggest, are due to the action of sudden gleams of hot sunshine bursting on thin foliage of low vitality. In our case we practically replanted the Vines in new turfy loam and the other ingredients usually added to a Vine border in the autumn following the trouble. The crop the Vines bore the following year was a poor one; but the Vines were restored to good root-action and good health, and bore moderate crops of splendid quality fruits for years after. The Muscat will carry as heavy a crop as any Vine we know with impunity for a few years; but the inevitable collapse is bound to come if very heavy cropping is indulged in for too long. Possibly your Vine has not yet felt the advantage of the new turf added to its roots last autumn, and may improve later. If it does not, we should not hesitate to get at its roots to within 1 foot of the stem and practically relay the roots in new soil, only giving them as much as you think they will fill the first season, afterwards adding a small portion every year. By this means and by the help of surface top dressings of fresh horse-manure and soil in equal quantities during summer, there is no reason why your Vine should not be restored to good health.

THE GREENHOUSE.

HIPPEASTRUMS AND THEIR CULTURE.

THE Hippeastrums are justly entitled to be regarded as the most gorgeous of indoor bulbous plants, and in the spring their large, massive, Lily-like blossoms are particularly valuable for various decorative purposes. The garden varieties are now so numerous and so dissimilar from each other that the blossoms vary in colour from white to deep crimson, while striped and flaked flowers occur plentifully among them.

Known formerly as Amaryllis (which generic name is now retained only for the South African Amaryllis Belladonna), the original species of Hippeastrum are natives principally of the tropical and intertropical portions of South America. Towards the formation of the present-day hybrids several species have contributed, and in this way the variable nature of these garden forms can be readily accounted for. For many years such nurserymen as Messrs. Veitch of Chelsea and Messrs. Ker of Liverpool have devoted a good deal of attention to the systematic intercrossing of the several types and the consequent production of new forms, of which examples may often be seen at the spring exhibitions. The Westonbirt collection of Hippeastrums, too, is scarcely less noted than the magnificent Orchids grown there.

Apparently there is an idea that Hippeastrums require a considerable amount of heat for their successful culture; but this is by no means the case, as given a greenhouse with a minimum night temperature during the winter of 45° Hippeastrums may be successfully grown. Of course, to have them in flower in January or February more heat will be required; but when treated as greenhouse plants they will bloom in April or the first half of May. Different ideas with regard to the cultural requirements of Hippeastrums are to be met with. Formerly repotting was, as a rule, carried out in January or early in February, and by some this practice is still followed. The majority, however, do not look upon annual repotting as absolutely necessary, and when it is done the operation is often put off till the flowers are past. This is, to my mind, far and away the best time of the year to repot the plants, for the roots are then active and quickly take possession of the new soil, whereas if repotting is done just as the flower-spikes are on the point of developing there is not time for the roots to become well established, and consequently the individual flowers fade quicker than when borne by well-rooted bulbs.

Very important items in the successful culture of Hippeastrums are encouraging them to make good growth after their flowers are past and ensuring a thorough ripening of the bulbs by exposure to sun and air towards the end of the summer. Weak manure water when the pots are well furnished with roots and the plants are growing freely is very beneficial.

As autumn advances and the leaves turn yellow less water will be needed, and when dormant they may be kept quite dry till a month or so of the new year has passed. Hippeastrums may be readily cross-fertilised and seedlings easily raised. For this full instructions have recently appeared in THE GARDEN. It must, however, be borne in mind that, unless special facilities exist, at least two and a-half years are required in which to flower a Hippeastrum from seed. Such being the case, many will prefer to purchase seedling bulbs, which, of sufficient strength to be reasonably expected to flower, can be purchased during the dormant season at a comparatively cheap rate. In the list of plants certificated by the Royal Horticultural Society between the years 1859 and 1899 no less than seventy-five Hippeastrums received either first-class certificates or awards of merit. At one time the first-class certificates were freely bestowed, but now only such an exceptional form as the white-flowered Snowdon will receive that honour, an award of merit being generally given to a superior variety.

Of the seventy-five above alluded to nearly all are garden forms, but a few well-known species, such as ignescens, Leopoldii and pardinum occur among them. That Veitchian publication, "Hortus Veitchii," reviews the several species and gives to H. Leopoldii the honour of having as a parent exerted the most influence in producing the present-day race of Hippeastrums. This species is named in honour of the King of the Belgians, who, during a visit to this country, was much struck by it when shown for the first time at a meeting of the Royal Horticultural Society at the end of 1869 or early in 1870. H. P.

A GOOD SPECIMEN OF GILBERT'S UNIVERSAL SAVOY.

THE KITCHEN GARDEN.

SAVOY UNIVERSAL.

OFTEN grown under the name of Gilbert's Universal Savoy, this may be classed as one of the Early Ulm forms, of which there are a good number, some, such as the Early Ulm, Early Dwarf and Paris, being much smaller than the one illustrated, which may be classed as a medium variety. It is a splendid autumn and winter vegetable, and though by no means a new introduction, as it was a great favourite in the northern part of the kingdom many years ago and received an award in 1889, it is still one of the best of the Savoy Cabbages on account of its size and good quality.

The Savoys play an important part in the winter vegetable supply, and the quality is always superior when the plants are fully exposed during growth. Of late years more attention has been paid to the hardy forms, such as the New Year Savoy, a variety I have had good well into the spring when sown in May, or even June in the South, and planted out as soon as the plants are large enough. I would advise more attention to the last-mentioned fact, as when the plants are left too long in the seed-bed they rarely give a good return, and this also applies to too early sowing. G. WYTHES.

TREES AND SHRUBS.

DECIDUOUS TREES FOR SCREENS.

WHEN trees are required for forming a screen evergreens are usually selected, and in cases where a permanent and light-excluding barrier is not objected to these certainly should be used in preference to deciduous trees. The latter, however, possess an advantage in some ways. During the winter, owing to the absence of leaves, a certain amount of light is admitted through them, and for this reason they may often be used where the dense evergreen would be unsuitable. This is particularly the case when the trees are planted near the windows of the dwelling. Some shade is appreciated in summer, and this is afforded by the deciduous tree; while during winter the light is not obstructed to any serious extent, especially when the trees are judiciously pruned. Many deciduous trees are suitable, and the following may be cut into any desired shape, when an annual pruning will keep them within bounds: Chestnut, Elm, Lime, Plane and various Willows. Where there is ample space and free growth is not objected to, many more kinds may be brought into service.

Trees when planted for the purpose of shutting off any objectionable view, or for ensuring privacy in the garden, should be planted thickly, as this tends to an upright and rapid growth. A suitable distance is 9 feet from tree to tree. A row, or, if preferred, a double row, arranged thus * * * * * * *, of Limes or Elms planted in well-prepared ground will grow rapidly and soon produce the desired effect. Many instances are seen (especially in town gardens) of Lime trees cut back in the shape of a hedge, and for the purpose of a screen these answer admirably; hard pruning is annually practised to produce the desired result. The trees mentioned above are all amenable to this treatment. The Lime and Elm are particularly adaptable for training into a variety of forms owing to the elasticity of their wood and freedom of growth. C. R.

THE FLOWER GARDEN.

DUTCH IRIS—A NEW AND EARLY RACE.

"MADE IN HOLLAND."

I WAS fortunate when paying a visit to Mr. van Tubergen's bulb garden at Haarlem on June 11 last to hit upon a day when a new race of Iris were in their full glory. At first sight as one comes upon them they might easily be mistaken for Spanish varieties, but on a closer acquaintance it is seen that their whole habit of growth is more vigorous; in fact, in some of the stronger ones the stems and foliage approach those of the English Iris. The flowers, which are similar to the Spanish in their general appearance, are large and characterised by wide falls marked with very conspicuous orange blotches. The prevailing tone of colour is that of the soft shades which we associate with Coquette des Blanches (Louise) and La Tendresse. Curiously, there are few yellows, and at present the stocks of any of them are small. There are a fair number of blue shades; one of them named Rembrandt is a fine deep self, somewhat of the same colour that we get in Formosa or King of the Blues, with wide, handsome falls, which measure in normal flowers from 1⅜ inches to 1⅝ inches across. On my way home, through the courtesy of Mr. van Tubergen, I left a small collection of blooms for the Editor's flower-bowl, and I think he will bear me out in saying that they have all the charm of the older type, with the additions of greater vigour and length of stem. Their greatest value and distinctness consist in their

Earliness. They are at least ten days to a fortnight earlier than the Spanish, for a bed of these had been planted beside them for comparison, and they were a long way off flowering. Tulip-growers will know the brilliant scarlet-coated gentleman who bows the farewell of the race as they leave us till another season. Well, Dutch Iris begins to flower when T. Sprengeri is in all his magnificence and the very last of the May flowerers almost gone. They just fill in the awkward gap after the Tulips, and for this reason they will be welcome additions to the herbaceous border.

HISTORY.

Although they so much resemble Spanish Iris, they have nothing whatever to do with them. No variety enters at all into their parentage. Through the instrumentality of Mr. John Hoog, the firm (G. C. van Tubergen, jun.) is in possession of a number of Ziphium species. It is by intercrossing such kinds as filifolia, Boissieri, tingitana and others that Mr. Thomas Hoog has raised his fine new race. It has been entirely "Made in Holland," and so, when I found that it had no distinguishing name, I ventured to suggest "Dutch Iris," a name which has since been adopted by Messrs. de Graaff and the raisers who, severally, are going to introduce these new-comers to the gardening world. The individual varieties have been named after Dutch painters. The following list includes some of the best and most beautiful:

Albert Cuyp.—Falls, primrose with an orange blotch; standards, palest blue passing to white.

Van der Neer.—Falls, yellow grey, very wide; standards, lavender; fine robust variety.

Pieter de Hoogh.—Falls, ivory white, wide; standards, lavender blue; extra fine.

Rembrandt.—Falls, rich deep blue, extra wide; standards, dark blue; a remarkable variety.

Saenredam.—Falls, yellow; standards, mauve.

David Teniers.—Falls, yellow; standards, pale blue.

Hobbema.—Falls, pale primrose; standards, pale blue.

Frans Hals.—Falls, pale primrose; standards, palish blue; a robust grower.

Johannes Bosboom.—Falls, white; standards, white; a fine white self. JOSEPH JACOB.

[I am much obliged to Mr. van Tubergen for sending the blooms, and I endorse all that Mr. Jacob has said about the pleasing qualities.—ED.]

THE NEW DUTCH IRISES.

SWEET PEA CHAT.

TAKE WARNING.—Considering how frequently forcible reference has been made to the imperative necessity of keeping all seed-pods down on the plants, it might not at first glance be thought necessary to allude to the subject in this column; but this is not the case, for there are still many amateurs who think that if they strip their plants periodically all will be well. Their primary reason for allowing all the blooms to remain on the plants is to produce a fine garden effect, and to this end they will only allow half-a-dozen or so stems to be cut at a time, with the result that the flowers pass, seeds are set, and then the plant has other and more important business to attend to than the development of successive blooms. All this is very laudable, no doubt; but if growers would once realise that they can have abundance of flowers for the house and still retain sufficient to produce a superb effect, they would soon learn that picking pays in every way. The rule should be to cut all stems just before the blooms attain to perfection. If a bud is then only half expanded, it will open beautifully in water; indeed, in many instances it will come finer off the plant than it would have done had it been allowed to remain on it.

EXHIBITION BLOOMS. One of the most difficult points for the inexperienced grower to grasp is when to cut his exhibition blooms and how to pack them if they have to travel a distance to a show. Unfortunately, it is impossible to give explicit instructions upon the former point, since local conditions have to be taken into consideration, but it is quite certain that almost all should be secured before they are fully open, as they can be relied upon to expand in water and come to full size just as they would have done on the

plants. Again, it will be found that the varieties vary considerably in many respects, and particularly as to which is the best stage to gather; but the enthusiastic cultivator and exhibitor will observe keenly and take full notes, with the result that he will soon learn all there is to be learned upon the point. In any case, they should be cut when they are dry, and for preference early in the morning before the sun has had time to take any of the stamina out of them; but if the flowers are wanted and the evening promises for rain, it is wise to gather and put in water over-night rather than run the risk of having to get them when they are dripping with water. If they have to be packed in the latter condition, then one can give up all hopes of being able to put up unspotted blooms. According to the distance from the show, the blooms may be secured twelve, twenty-four, thirty-six or even forty-eight hours before they will meet the judge's eye; but in the latter case the utmost care will have to be taken as to the stage of the buds and blooms and to let the stems have a good turn in water prior to the packing, or they will not come out fresh. As far as packing itself is concerned, there is little difficulty, provided that firmness and the exclusion of air are ensured. Either a box or a flat hamper may be utilised, but the former is rather the better. In either case there should be a lining of one or two thicknesses of tissue paper and also a similar covering before the lid is put on and tied closely down. The varieties will be in bunches, and each ought to be labelled so as to prevent the possibility of an error at the last moment, and they should be placed so closely that no amount of shaking, even by the gentle British railway porter, will result in the movement of a single bloom. In arranging the stems in the vases an endeavour should be made to so place them that each individual can be clearly seen, and this means that no crowding will have to be permitted. Needless to say, the exhibitor should always take a few spare stems of each variety, and also, if possible, two or three spare complete bunches in case of one going off unexpectedly. SPENCER.

COLCHICUM SPECIOSUM ALBUM.

THIS variety has been truly described as one of the most beautiful of all the Meadow Saffrons, and certainly those who have seen it in bloom have unanimously endorsed this opinion. The flowers are a beautiful pure white, with golden anthers nearly three times the size of Colchicum autumnale. The blooms are of very good substance, and withstand the vagaries of the weather much better than the ordinary varieties. Planting should be done in July, and flowers will be produced during the autumn following. In heavy, moist soil the bulbs should be planted at a depth of 3 inches or 4 inches; in lighter soil the depth should be about 6 inches

THE NEW PÆONIA LEONORA

(About two-thirds natural size).

The illustration represents a group of this Colchicum growing in the York nurseries of Messrs. J. Backhouse and Son, Limited.

PÆONIA LEONORA.

THIS, as will be seen by the illustration, is a single variety, and must be regarded as a very beautiful addition to these useful hardy flowers. The colour is a good crimson lake, with a mass of rich golden yellow stamens in the centre, these contrasting well with the colour of the petals. It was shown before the Royal Horticultural Society by Mr. Charles Turner of Slough on the 22nd ult., when it received an award of merit.

COLOURED PLATE.

PLATE 1378.

DECORATIVE CHRYSANTHEMUMS.

THE word "decorative" has rather a wide meaning; in Chrysanthemums it is applied to such sorts as are particularly valuable for florists' work, or ordinary decorations, rather than for exhibition. In the variety Kathleen May, which is well represented in the coloured plate, we have one of the prettiest and most distinct novelties introduced last season. There is no need to give it a description, for the plate well represents the natural flowers; but I may say that the small fluted florets of the disc are similar to those of the Anemone-flowered varieties. Its great value is that it is one of the brightest of the late-flowering varieties. I had good flowers before me in January, but it is probable that it may be flowered much earlier. It gained a first-class certificate from the National Chrysanthemum Society at the December show. The plate was prepared from flowers supplied by the H. J. Jones Nurseries, Limited, Lewisham, who hold the stock.

The great advantage of the decorative varieties is their freedom of flowering and their adaptability for uses where the large Japanese sorts would be quite out of place. Christmas is another variety worth alluding to. This is a very free-flowering, deep yellow variety with good stems, and the flowers, which are of medium size, are produced in pretty branching sprays, and I found that they lasted well. As the name implies, it comes in at Christmas, but I saw blooms much later. Crimson King is another variety I noted in the Ryecroft Nursery, very bright in colour, of good substance, and free flowering.

Single varieties have been introduced by all the leading growers during the past season; the only fault is that we are getting too many names. I may, however, say that the single varieties are finding much favour with some of the London florists, but they do not make big prices in the market unless it is for something very special. For growing in private gardens, where flowers are required for house decoration, they cannot be too strongly recommended, as they are exceedingly ornamental, both as specimen plants and as cut flowers. There is no doubt that these smaller, free-flowering types of Chrysanthemums are finding much favour in all directions, a favour that is well bestowed, as they come at a season when we have none too many flowers and do much to brighten up our greenhouses and dwelling-rooms, the flowers lasting in good condition for several weeks if well looked after. H. HEMSLEY.

THE ROSE GARDEN.

AMONG THE ROSES.

OUR darker Hybrid Perpetuals are very bright this year so far; but it is the first week of July that these are generally at their best. Later in the summer we occasionally get some good examples, especially of Eclair, Victor Hugo, Earl of Dufferin and Grand Mogul. Some of the Hybrid Teas and Teas are also quite up to the average, most noticeable among them being Prince de Bulgarie, Mme. Antoine Mari, Pharisaer, Mme. Ravary, Gustave Regis and Mme. Constant Soupert. Mme. Jeanne Guillemot and Mme. Philippe Rivoire are once more proving their worth by opening well during this chilly and changeable weather. If some of the choicest Roses are apt to come thin and with few petals during a hot season, they fully take their place once more when cooler weather prevails, and are invariably among the most reliable during autumn.

We have lately (and are still having as I write) heavy and almost torrential showers, frequently spattering the soil 2 feet or more from the ground. Here we see the value of short hedge Briars as stocks, and it was seldom better exemplified than during the past fortnight. A large number of our best varieties have a tendency to hang their heads; the heavier and better the flower, the more noticeable this is. Many, too, carry their largest blooms upon well-matured but fairly weak growth when compared with the weight they are called upon to support. Notable among these are Mrs. Edward Mawley and Dean Hole, but the last named is better than the first in this respect. White Maman Cochet and its normal type, also Souvenir de Pierre Notting, Grace Darling, Le Progrès, Viscountess Folkestone and Bessie Brown are further examples of what I mean.

Now, when these are cultivated upon a hedge Briar stem of 18 inches to 2 feet in height, we keep the growth all that further from the ground. Nor is this the only advantage, for, so far as my own observations go, we find Teas and Hybrid Teas upon these short Briars withstand the winter better than quite dwarfs. They are easy to protect, and do not suffer so much from a combination of frost and wet at the base of the Rose plant. The majority of the flowers come better matured and finished than when upon a coarser and more succulent-growing dwarf, and I believe a large number of growers will back me up in this opinion. Suckers need prompt removal from all Roses as soon as they appear, for no matter what the foster-stock may consist of, it is certain to claim first pull on the energies of the roots.

We have taken advantage of the recent wet and dull weather to apply what artificial manures we intend using. Applied during such weather and hoed in quickly has proved the best plan withk us. But I am not much in favour of artificial manures in the open; they need much more care and selection in using. Too often we do not sufficiently bear in mind what our soil is deficient of or otherwise; indeed, I fear far too many add an overplus of what is already in excess simply through want of a little thought and observation. Almost all artificial manures are forcing and hasty in their action. If not taken up quickly they soon pass away in the ordinary process of percolation. Organic manures are decidedly the better. Night soil used with old potting refuse after being well incorporated is one of the best for Roses. This is not so unpleasant if applied with care and slightly surfaced over at once with a little fresh loam. It is not nearly so offensive to me as some of the fish manures we have tried from time to time. Manure from fattening bullocks is good for almost any soil; so, too, is pig manure; in fact, almost any animals that are corn fed in conjunction with green stuff, and whenever such is available in sufficient quantity I much prefer it to artificials.

Our stocks for budding upon this season are looking well, and the recent rains have been just the thing for our standard Briars. We have a much better "take" than usual. Many stems that were apparently dead have only been "sleeping," and these showers have been just what was required. A hot and dry season is very trying to Briars during their year of striking root. Reverting once more to manures, we have been giving our stocks a slight start with bone-meal, finding a little of this now helps the sap to rise freely and yet does not maintain so strong late growth as would frequently be the case when the ground is too much enriched. Our own experience points towards beginning to feed from the maiden stage of the Rose, but, better still, after the plants are put into their permanent quarters.

How very showy and pleasing the dwarf Polyantha Roses are again, and what delightful subjects these are for bedding! Many of them are as full-flowered as Begonias or Zonal Pelargoniums. They are permanent; flower early, mid-season, and late into autumn. They are also among the most hardy, and there is no lack of choice in colour or form. As permanent bedders upon the lawn they deserve more attention. True, we can replace some other summer and autumn subjects with bulbs and early spring-flowering plants; but for the amount of trouble expended few can compare with the present-day dwarf Polyanthas, helped out with some of the newer Hybrid Chinas where such colours as Queen Mab, Eugène Resal and Comtesse du Cayla are in request. During the late dewy or rainy mornings the fragrance of Penzance Sweet Briars has been very noticeable. Grand hedges can be formed of these, and I have seldom seen them put to better use than at the bottom or side of a lawn, parting off outbuildings or any other unsightly but necessary offices. Placed across the corner that contains the weeds and various refuse always found in any garden, these Briars hide what a friend of mine calls his "best weed-killer, purifier and fertiliser for the garden," viz., the spot where a fire is almost always smouldering. Nor do I think we make sufficient use of the rugosas in lieu of hedges and screens. They are, with regard to foliage, longer than other Roses, seldom affected by caterpillars and blight, and never lose their autumnal foliage through red rust. In addition they are not at all difficult to grow, as they thrive in almost any kind of soil. The race has been greatly improved during recent years, and a good selection may now be made.

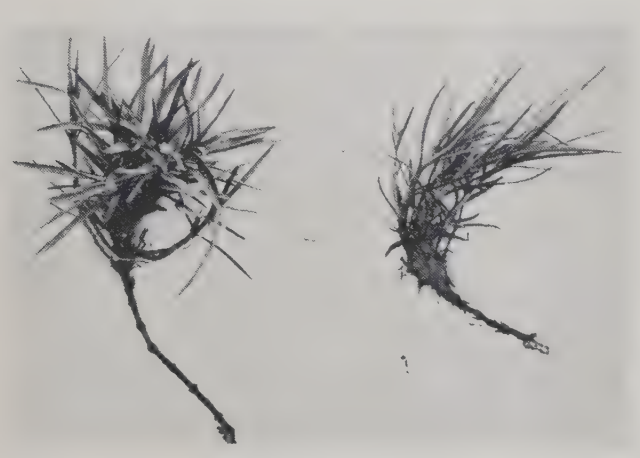
Uckfield. A. PIPER

A CLUSTER OF COLCHICUM SPECIOSUM ALBUM. (See page [illegible].)

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Now is the season for layering Carnations, although it may be wise in some localities to defer the work until the end of the month owing to the lateness of the flowers. Those shoots which have not borne flowers are the ones to select, and these must be slit up for about an inch on the under-



1.—PORTIONS OF AN OLD PINK PLANT WHICH WILL QUICKLY ROOT IF PLANTED IN SUITABLE SOIL.

side, after removing the lower leaves, so as to form a sort of tongue, which must be kept open when pegging the shoot down. Some good ordinary potting soil should be used for pegging the layers into, and this must be made moderately firm all round the cut portion. Should the weather prove dry, this soil must be kept well watered until the layers have made a mass of roots. The young plants should be severed from the parent a week or ten days before moving them, so as to avoid a double check to growth. Those who possess Briars should lose no time in budding them with good Roses, as usually there is no time better than the middle of July. It is necessary that the bark of both stock and bud part from the wood easily, and the actual work of inserting the buds must be done as quickly as possible. As the operation was pictorially explained in THE GARDEN last year, there is no need to do more than remind beginners of the work now.

Vegetable Garden.—The final thinning of spring-sown Onions must now be undertaken, and where large bulbs are desired the plants must be thinned to 6 inches apart. Where medium-sized specimens for home use only are required, 3 inches apart will suffice. If the weather is dry and the plants will not draw easily, give the bed a thorough soaking with water one evening and do the thinning the next morning. Plants that were raised under glass and subsequently planted out will derive much benefit from weekly applications of weak liquid manure, taking care to water the bed well with clear water an hour or two previously. Should the weather be wet, a sowing of Turnips may be made. The usefulness or otherwise of the crop will depend entirely on the weather subsequently experienced, but where space is available the experiment is worth trying. A small sowing of a quick-growing Lettuce should be made. I have always found Carter's Holborn Standard an excellent variety for summer use, as it does not run to seed quickly and forms large, solid, crisp hearts that beat most Cos Lettuces, although this variety belongs to the Cabbage section. During dry weather growing Cauliflowers, all kinds of salads, Peas, Beans and similar crops will derive great benefit from good soakings of water, and where time will permit this should be given; too often watering is confined to the flower garden and the vegetables left to take care of themselves.

Fruit Garden.—Where it is desired to retain the fruits on a bush or two of Red or White Currants, it is fairly easy to do so. Select the most shapely and medium-sized bushes, and when perfectly dry tie the branches up moderately tight. Then tie round the whole bush one or more mats in such a manner as to throw off heavy rains and exclude a considerable amount of light. From bushes treated thus I have gathered good fruit in the middle of September, a season when it is most welcome both for dessert and exhibition purposes. Gooseberries and Black Currants will not stand this treatment so well; but the former, especially such varieties as Warrington, may be preserved for several weeks by netting and shading the bushes, choosing, if possible, those which are naturally shaded for a greater part of the day.

Greenhouse and Frames.—Those who appreciate Mignonette during the early spring months should sow a few seeds in pots now, choosing pots 5 inches or 6 inches in diameter. These must be well drained and filled with a soil mixture composed of loam two parts, well-rotted manure one part, and a good sprinkling of old mortar added. Make the soil moderately firm, scatter the seeds thinly, cover very lightly, water well with a fine-rosed can and then stand the pots in a cold frame. As soon as the seedlings appear free ventilation must be afforded, thinning them early to five or six to each pot, and for the next three months, or until severe frosts threaten, the plants must be grown on as hardily as possible. Small twiggy sticks will most likely be needed for support. When, at the approach of winter, the plants are taken to the greenhouse, they should be kept near the glass and given free air as often as possible. H.

INCREASING THE PINKS.

THERE is no more popular subject in the hardy flower garden in late June and early July than the beautiful sweet-scented Pink that many of us have loved from our childhood. Although this subject is commonly called by the garden name of Pink, to botanists it is known by the name of Dianthus plumarius. There is a history attaching to the flower, which is said to derive its name from the Dutch word Pinkster—Whitsuntide—the period during which the old Whitsuntide Gilliflower is in blossom. There is an old work in which the author recommends the water distilled from Pinks as an excellent remedy against epilepsy; the same work also says that "if a conserve be composed of it, it is the life and delight of the human race."

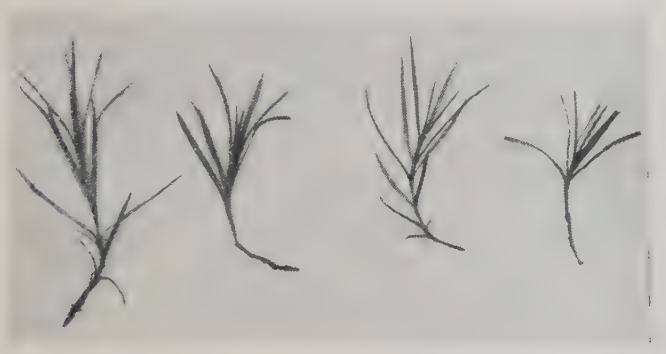
There are many very beautiful double varieties, and the specialist, even at this period, continues to add to the list of cultivated kinds. The show and laced Pinks in the past have been freely grown for exhibition, and many of the older florists speak in enthusiastic terms of the keen appreciation of the exhibition kinds by them and their contemporaries when they were so popular in earlier days. Pinks revel in a well-drained border, where the soil has mixed with it plenty of well-rotted manure.

The best time to plant the Pink is in September or October. I prefer the early days of October. The early days of March may also be chosen for the same purpose, but the plants do not seem to make such beautiful specimens when planted then. The choicer varieties are more often grown in frames during the winter, and many varieties are grown on in pots and flowered under glass; but few of us would care to follow this somewhat artificial method of culture when excellent results may be obtained by the ordinary hardy treatment of our plants.

It is a good rule to raise a batch of new plants each year, so that there may be material to follow worn-out or impoverished specimens from time to time. The Pink is increased by two or three methods of propagation—either by pipings or by detaching small pieces of growth with a "heel" attached and embedding these in soil in suitable conditions. An inspection of a clump of the Pink will reveal numerous pieces round about the outer edge of the plants that resemble in appearance those in Fig. 1. In one case it will be observed that there are just a few hair-like roots adhering, and in the other just the plain heel as detached from the old plant. With such pieces it is possible to make splendid plants in a comparatively short time, and this method, therefore, appeals to many. It is a good plan to make up a bed of light, sandy soil in any shaded or semi-shaded position, as exposure to the sun is almost sure to be disastrous. These offsets or divided pieces of the old plants should be embedded to the base of the growths in the prepared soil about 4 inches, more or less, apart, and they should be made quite firm at their base. This latter is very important if the rooting process is to be quite satisfactory. Fig. 2 shows how these divided pieces should be arranged in the propagating-bed. If the severed pieces alternate in the rows their interests are better served, and they may be helped with greater ease when the planting-out period arrives in the autumn. Cold frames may be used, if preferred; but a more simple method is to make up a bed in a semi-shaded position, and on four uprights, about a foot above the ground, to place a closely woven wooden hurdle or anything of the same character during the period of propagation.

2.—METHOD OF PLANTING THE PORTIONS SHOWN IN FIG. 1.

Increasing Pinks by means of pipings has always been the recognised method of providing a large supply of these useful plants; but it is less popular to-day with amateur growers than formerly. It is quite a simple process, however, and in Fig. 3 we give a series of examples of the character of the growths from which pipings are made. The two examples on the left of the picture will make rooted plants in a little while, as they both have a few roots already, and if dibbled in with ordinary care will give a very



3.—GROWTHS OF PINKS FROM WHICH CUTTINGS OR PIPINGS CAN BE MADE.

good account of themselves. The two examples on the right of the picture, however, are the best representatives of a correct form of piping. Of the two, that on the left is the growth as severed from the plant, and that on the right is the piping properly prepared and ready for insertion. When preparing for this work it is a good plan to cut off as many shoots as are required from the parent plant and prepare them as depicted in the illustration. To prepare a piping, the growth should be cut through immediately below a joint with a sharp knife. Remove a few of the lower leaves, and the points of the upper ones should be cut through as portrayed. Insert these in sandy soil in a cold frame, which can be maintained in a close condition, or what is better, especially where the requirements of the grower are not overlarge, use pans or boxes, and have in readiness a bell-glass to cover the same. Fig. 4 shows a pan of pipings inserted about 2 inches, more or less, apart and the bell-glass or cloche ready to cover them. Small beds may also be made up in a half-shady position, and these covered with a hand-light during the process of rooting. D. B. C.

LIFTING EARLY POTATOES.

THE lifting of early Potatoes may seem to be a very simple matter, and so it is when the workman understands exactly what to do. The tubers required for seed purposes need very different treatment to those intended for cooking. When are the tubers matured sufficiently to lift and save seed tubers? This is a question that every inexperienced cultivator must put and get satisfactorily answered before he commences the work. For table use solely Potatoes may be lifted when they are very small, and such are highly appreciated, but it is a wasteful practice. All such tubers adhere firmly to the runners or roots; but when the medium-sized tubers are to be selected and stored for seed purposes, all of them must part readily from the runners when given a gentle shake. In this condition the Potatoes are fit to lift. When thoroughly ripe the tubers will part from the runners as they are raised out of the soil. The large, or cooking, tubers must be stored forthwith in a darkened shed or placed under straw and litter. The medium-sized ones used for "sets" must be exposed to the light and sunshine until they are green all over. My method has always been to place the tubers on mats under frame-lights, the latter being tilted on bricks or empty inverted flower-pots. The tubers are left there for about three weeks, and in the meantime they are turned over at least twice, so as to get the skin hardened and thoroughly greened. Throughout the autumn and winter months the seed tubers must be kept in single layers in boxes or on shelves in cool, light stores just safe from frosts, but not subjected to a high temperature, as this would induce premature sprouting and consequent weakness of the tubers. SHAMROCK.

EARTHING-UP CELERY.

CULTIVATORS who intend to exhibit their produce must pay close attention to the earthing-up of the plants. The early ones will be fit to lift and stage at the August shows. It is a wise plan to leave the work of placing soil to the plants as late as possible consistent with allowing sufficient time for the proper blanching of the stalks. Some cultivators who have not had much experience in the growing of Celery for show purposes are very eager to earth up the rows, thinking that by doing so they will hasten the growth of the plants. It is a mistake to do this, because the extra soil which is placed over the roots prevents the latter receiving abundance of water in the ordinary way. Before any soil is heaped up, the plants must have a thorough soaking with clear water first and then manure-water. There is another very important point. Where the soil of the garden is of a stiff, clayey nature, many slugs will, no doubt, be found in it, and they will also find the Celery and under the earthing-up soil eat portions of the outer stalks. Plants so mutilated are not good enough to exhibit. I recommend the cultivator to use a mixture of fine ashes and sand, pressing a small quantity to the stalks as the earthing-up proceeds, the bulk of the soil being, of course, the ordinary garden loam. SHAMROCK.

SOWING TURNIPS.

THE last sowing of the early varieties should now be made. This ought to provide roots until the Swedes are fit for pulling. Ground that has been cleared of Potatoes will be suitable, a cool situation being best, as Turnips soon bolt if the weather is very hot. The ground need not be dug again if it is in good order, merely cleaning and raking it moderately fine for the reception of the seed will do. Golden Ball and Chirk Castle are both suitable for present sowings. Let the seed drills be 15 inches apart, and sow thinly.

THE TOWN GARDEN.

WALLFLOWERS.—Even in the middle of the summer, when we are enjoying the general effect of the bedding-out plants, we must, for a short time at least, let our thoughts dwell upon the work which is necessary in connexion with the raising and treatment of spring-flowering subjects. For town gardens there are few plants more suitable than Wallflowers. They will thrive in draughty positions and in almost any kind of soil better than the majority of spring-flowering plants. It is, however, advisable to well prepare the plants so that they will withstand a severe winter if one occurs. To this end the cultivator must pay close attention to the transplanting of the seedlings now. Those raised in open borders will be much stronger than others raised in frames. Mere size is not a good criterion of the strength of the plant; the latter must be short-jointed, stocky and with leaves of good substance. The early transplanting of the seedlings will still more strengthen them and induce the formation of plenty of fibrous roots. The nursery bed should be well placed and in the open, not overshadowed by trees or buildings. The soil of the bed need not be rich, but it must be moderately so and be made very firm while in a dry state. If a small quantity of old mortar rubble can be procured and mixed with the ordinary border loam, the young Wallflower plants will be very much benefited.

POLYANTHUSES, PRIMROSES, PANSIES, Aubrietias, Silenes and Forget-me-nots must all receive similar attention now if nice strong plants are to be ready for putting out in the autumn or next spring. Where the soil is naturally very clayey, or where water lodges a good deal in the ground during the winter months, it will be advisable to put out all the plants in slightly raised beds; but especially is this precaution necessary in the case of the Forget-me-nots and Silenes, as these two damp off badly if subjected to much moisture.

CLEANING THE BEDDING-OUT PLANTS.—Owners of town gardens like to put out bedding plants with flowers on them at the time, so as to have a good display without any delay. Success in a certain degree is assured, but at the expense of the growth of the plants and future display of blossom. The flowers and flower-buds on the plants at the time the latter were put out are now fading rapidly, also some of the leaves. No time must be lost in freeing all the plants, especially such as Zonal Pelargoniums and Fuchsias, from the fading blossoms and leaves. For a couple of weeks afterwards the beds will not look quite as bright as before the picking began, at least not as regards flowers, but fresh buds will be developing fast, and the removal of the yellow leaves makes the plants look a great deal more healthy. So a brilliant display of blossom will soon follow, and if the fading flowers be regularly picked off every week afterwards the display will continue until very late in the season.

EAST LOTHIAN STOCKS.—Seeds sown now will produce plants which will flower next summer. When well grown the plants form very large bushes, and they are suitable for planting out in almost any part of the garden, even among young shrubs, where they look very nice; but, of course, it would not do to plant the Stocks in borders that are thoroughly permeated with the roots of trees or large shrubs. Sow the seeds thinly in

4.—THE PIPINGS INSERTED IN A PAN OF SOIL, WHICH WILL BE COVERED WITH A BELL-GLASS TO FACILITATE ROOTING.

an open border, and duly transplant the seedlings in another open border 6 inches apart each way.

HOEING.—During the necessary work in connexion with the removal of spring-flowering plants and the putting in of the summer-flowering subjects, weeds did not get much chance to grow; but now the seedlings of weeds will quickly assert themselves if left undisturbed. It would be well to examine the flower and other beds and, where there is room for the hoe, carefully loosen the surface soil, as such action will destroy thousands of weeds in their infancy. This work must be done on a bright, sunny day, as then the young weeds will perish before the night dews freshen them again. Weeds more than 2 inches high must be carefully pulled out by hand, as it would not do to allow such to shrivel on the soil. AVON.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUIT DEPARTMENT.

VINES.—Maintain a humid atmosphere in all vineries where the Grapes are swelling. Muscats may be given a rather higher temperature than most other varieties till the berries are perfectly ripe. Keep the roots well supplied with moisture and feed with suitable Vine manure or farmyard liquid at a reasonable strength if needed to assist the Vines to perfect the crop. Afford ample ventilation to Lady Downe's during the stoning period to avoid the berries scalding, and keep the pipes at night comfortably warm to prevent the temperature during this critical time from falling below 70°.

Young Vines that were planted this spring should be encouraged to make good growth. Take out the points of the leaders when they have grown to a reasonable length and pinch the laterals back to one or two leaves. Damp the borders freely and syringe overhead when closing the houses in the afternoon during bright weather; but should the weather prove dull and damp, regulate the moisture accordingly and keep the pipes warm to prevent mildew. Crop all young Vines lightly till they have become well established.

Figs.—Attend to the tying in of suitable shoots for fruiting next season. If the growths are coarse, tie them in a downward direction. Thin out useless shoots and give plenty of air on favourable occasions when the Figs are ripening.

Peaches.—Trees ripening their fruit will need ample ventilation. Do not syringe overhead at this period, and go over the trees once or twice daily and remove any which are ready to gather, packing them a trifle under-ripe, especially if required for travelling long distances. Tie in the growths of later varieties and expose the fruits to both light and sun, so as to give them colour and flavour. Examine frequently the borders and thoroughly deluge with manure water if dry.

PLANT DEPARTMENT.

Ferns.—Many of these may be required for decorative purposes, and before taking them into rooms need a little hardening. If stood in a lower temperature for a few days, the fronds will last much longer; this applies equally to many other plants which have been grown in a rather close and moist atmosphere.

Plants in Bloom in the conservatory will need to be shaded from the bright sun, and the roots must not lack moisture. Go over the plants daily and remove faded blooms and any dead leaves. Tie in carefully the growths of creepers and maintain as far as possible a clean and neat appearance throughout.

Bulbs.—The bulb catalogues will in many instances be at hand, and no time should be lost in preparing a complete list of those required for different purposes. Roman Hyacinths, Freesias and Narcissi to flower early should be potted up as soon as they arrive, and to obtain the best results the bulbs must be thoroughly matured and of good quality and the soil sweet and fresh. If for naturalisation and immediate effect, large quantities of the most suitable varieties should be obtained and planted early, after which a quantity may be forced annually and then planted out. These, if not the first season, will flower well the following. When planting bulbs, if the land is of poor quality dig out some of the soil and add rich, well-decayed manure, which should be thoroughly incorporated with the staple previous to planting the bulbs.

H. MARKHAM.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

VEGETABLE GARDEN.

PLANTING.—Advantage should be taken of dull, showery weather to plant out many kinds of autumn and winter vegetables, or if the ground intended for these is still occupied with some other crop, the plants should be raised from the seed-beds and be placed in shallow trenches until it is convenient to plant them permanently.

Brussels Sprouts.—The lines of these may profitably be 30 inches apart, with 6 inches less from plant to plant in the opposite direction. Previous to planting, prepare the ground thoroughly and make it firm. A dressing of soot, burnt refuse or lime will prove beneficial in most soils and will tend to keep slugs at bay in the earlier stages of growth.

Broccoli for autumn use, such as Walcheren and Veitch's Self-Protecting, intended to succeed late Cauliflowers should also be attended to as soon as possible, and the same remark applies to later sorts, which, to enable them the better to withstand the severities of winter, are best planted on hard ground. This, however, if having recently borne some other crops, should be cleared of weeds and have the surface loosened, though not necessarily to much depth.

Cabbages.—A good breadth of these planted now is sure to come useful in due course. To obtain quality a rich root-run must be provided. Seed for producing plants for spring use must shortly be sown, the third week in the month being, perhaps, the most favoured time with cultivators in general. With this in view the seed-bed may be got ready at once by being turned about and dressed with soot.

Spinach.—A difficulty is often encountered with this crop in winter, more especially in very moist districts. The perpetual type or Spinach Beet, though inferior in quality to true Spinach, is a good substitute, withstanding both frost and wet, and, moreover, is most acceptable when vegetables are scarce. Two or more sowings should be made, the first at the present time, and the plants be thinned to about 4 inches apart when large enough, and the last a month onward, which will provide a supply until next year's sowings are ready for use.

HARDY FRUITS.

Figs in the open are fruiting sparsely, the result undoubtedly of the damage done to the trees by frost last year; but as growths are abundant, an early thinning of these should be undertaken and any required for the extension of the trees be secured to the wall or support.

Peaches and Nectarines are very fairly cropped. A final thinning of the fruit may now be done, leaving the best placed or those that are least likely to get, with increase of size, in contact with wall or wires. Remove blistered leaves and surplus shoots, and tie those left while yet pliable to the wires or branches to prevent breakage by wind.

POT PLANT DEPARTMENT.

Chrysanthemums.—Potting and staking being now completed, rapid growth will necessitate the tying of shoots every few days. In the large flowering section certain varieties are prone to produce buds this month. The same should be removed on their appearance, when shoots will immediately start from near the point of severance, and on being reduced to the requisite number those reserved will in all probability form buds early in August or near about the time best suited to many varieties. In hot, dry weather watering will require careful attention, and newly potted plants will often show signs of distress under a bright sun, which may signify effects of root disturbance rather than want of moisture. JAMES DAY.
(Gardener to the Earl of Galloway.)
Galloway House, Garlieston, Wigtownshire

NEW PLANTS.

CATTLEYA MOSSIÆ WAGENERI SANDERÆ.—This is a particularly pure white variety, the petals being considerably broader than those of the type, both these and the sepals being pure white. The labellum is of medium size, heavily fringed and freely marked with rich yellow. Award of merit.

Lælio-Cattleya Martinetii The Prince.—This is an exceedingly beautiful member of this bigeneric family, the large flowers possessing bold sepals and petals of bronzy orange hue, the large lip being rich purple claret and beautifully veined. First-class certificate. Both were shown by Messrs. Sander and Sons, St. Albans.

Miltonioda Harwoodii.—This is a new and pretty bigeneric hybrid, its parentage being given as Miltonia vexillaria × Cochlioda noetzliana. Only a small plant was shown, this having one flower some 2 inches in length, the sepals and petals being bright cerise coloured, and the lip creamy white, spotted rose. Shown by Messrs. Charlesworth and Co., Hayward's Heath. Certificate of appreciation.

Primula littoniana.—A remarkably distinct, if not, indeed, absolutely unique, species from the mountains of Eastern Asia. The pyramidal inflorescences are 3 inches to 5 inches long, on a stalk 18 inches in height, the pendulous, acutely pointed blooms of a deep lilac or purple shade and spirally arranged. A very striking feature of the species is the brilliant red colour of the calyces, which, assuming a conical shape, create a decided contrast with the expanded flowers. The general effect of the flowering, minus the richly coloured tips of the inflorescences, is that of one of the British Orchises. The leaves are soft and of that oblong elliptic character which marks the Polyanthus. Shown by Bees, Limited, Liverpool. First-class certificate.

Nephrolepis magnifica.—A very beautiful variety indeed, and for which, by reason of the Filmy Fern-like character of the fronds, might not inaptly have been named N. trichomanoides. We think it exceedingly beautiful but not magnificent, and as the finest of the very remarkable plumose series it is certainly a charming addition. Shown by Messrs. Stuart Low and Co., Enfield. Award of merit.

Carnation Lieutenant Shackleton.—A very handsome yellow ground border variety, with pale pink colouring on the petals. Shown by Mr. C. Blick, Warren Nursery, Hayes. Award of merit.

Rose Arial.—A single-flowered rambler variety, the blooms of which are rosy pink and very pretty. Shown by Messrs. George Paul and Son, Cheshunt. Award of merit.

Rose Duchess of Wellington (Hybrid Tea).—A glorious flower of orange and gold colour.

Rose W. Speed (Hybrid Tea).—A delightful cream-coloured variety of great beauty and charm with reflexing outer petals.

Rose Grace Molyneux (Hybrid Tea).—Another delightful Rose, flesh pink in centre, creamy white without. A flower of very handsome and beautiful form. This excellent trio were exhibited by Messrs. A. Dickson and Sons, Newtownards, Ireland, and each received an award of merit.

Delphinium White Queen.—The handsomest and most imposing of the white-flowered Larkspurs we have yet seen. Shown by Messrs. R. Wallace and Co., Colchester. Award of merit.

Sweet Pea Masterpiece.—A very handsome variety of deep lavender blue shade, probably the finest of this colour at present known.

Sweet Pea Mrs. H. Bell Improved.—A superb variety in every way, the large, well-formed flowers being of a pleasing pink and of fine texture. This pair of excellent novelties came from Messrs. Dobbie and Co., Rothesay, and each received an award of merit.

Sweet Pea Mrs. Townsend.—A waved white ground variety with violet coloured edges; a very charming, distinct and showy novelty.

wn by Messrs. Jarman and Co., Chard, erset. Award of merit.

veet Pea Doris Usher.—A pleasing variety of -pink shade. From Mr. A. E. Usher, Bland- . Award of merit.

veet Pea Colleen.—A good bicolor variety, in ch bright carmine and pink are combined which produce a very pretty effect. Shown Mr. William Deal, Kelvedon. Award of t.

ll the aforementioned were shown before Royal Horticultural Society at Holland Park he 6th inst., when the awards were made.

REMARKABLE EXHIBIT AT HOLLAND PARK.

accompanying illustration is of Messrs. R. lace and Co.'s remarkable herbaceous border wall garden shown at Holland Park Show he 6th and 7th inst., and which was fully ribed in our last issue. Next week we hope ublish another view of this exhibit, showing om a different position. Such an exhibit is thy of the highest praise, and we are pleased e able to give those of our readers who unable to attend the show an opportunity aining some idea of its realistic beauty.

LEGAL POINT.

enant's compensation (*F. O.*).—A thly tenant having received due notice to states that there is a considerable quantity amson Plum trees and Currant bushes in his en with a large crop of fruit on them, and if he is entitled to any compensation "or the incoming tenant take the lot?" There right to compensation at common law; but ur opinion the outgoing tenant can claim er the Allotments and Cottage Gardens Com- ation for Crops Act, 1887. The Act is icable to two classes of holdings: (1) Allot- ts or pieces of land held separately from and ing no part of the appurtenances of a house; ottage gardens or allotments attached to a age. In each case the parcel of land must exceed two acres. The only difficulty that arise as to the applicability of the Act is sioned by the fact that there is no statutory ition of "cottage." The use of the word age differs from time to time. From adver- nents one sees issuing from estate agents the lightful little country cottage," consisting veral rooms with a heavy rental, one would gine it might cover a house of considerable ensions; but speaking as precisely as ible, it obviously means a "little" house. ttage is defined by Coke as a "little house out land to it." At the present day, how- , a cottage is not confined to the little house no land attached, as in the Housing of the king Classes Act, 1890, it includes a place half an acre, and in the Act with which we dealing it may extend to two acres. When is taken in conjunction with a Bill which become a statute which is replete with veloped land of £50 an acre, we are begin- to get a bit mixed in our nomenclature. how, the house of our querist is styled tage," and we have no doubt that he can , among other things, "for the crops, includ- fruit upon the holding." The Act kindly s the landlord and tenant to agree upon the nt and time of payment of the compensation ion 7), and in case of disagreement contains isions for arbitration. Justices of the Peace the County Court are also called into play, at if the parties are not wise enough to a small matter of this kind, there is some- left for lawyers to wrangle about, till nance it is transferred by a future statute to Government department.—BARRISTER.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Flag Irises (*A. K. Hincks*).—No, it is not usual for these flowers to vary in the way you describe, though occasionally a solitary flower may be seen with an increased number of standards and falls, the style-arms or branches being also increased. We have never known the freak to repeat itself, however, on the same plant, and we are watching a plant that gave a spike in which one flower had all its parts duplicated some two years ago, but whose flowers have since been quite normal. It would be interesting to secure seeds from such a flower and to raise seedlings to note the result. The coming and going of such freaks as these are not easily explained, the more particularly when only one flower in six presents itself.

Anchusa italica Dropmore variety (*Lawrence Johnston*).—The best way to increase and keep a good stock of this plant is by root-cuttings inserted during the winter and placed in shallow boxes in the greenhouse. As we hope to devote a special article to this method of propagating at a seasonable time, we will not give the particulars here. Our experience differs from yours as to two year old plants, which, as a rule, attain to 5 feet or more high; indeed, we have it more than this and a perfect pyramid of blossom. The best creeper for the shade of Beech trees is the Irish Ivy; the best erect-growing plant, the Butcher's Broom.

Sweet Pea plants dying (*Sweet Peas, Walsall*). The Peas have been attacked by eelworm at the root. Try what the application of Apterite to the remainder will do.

Constructing a rock wall (*Grace C. Reid*).—It would be a very simple matter indeed to give you a list of suitable plants and tell you the kind of stone to employ for the above; but if, as you say, you desire to do the work properly and do not know how to begin, you appear to require either very definite assistance from us or a guiding hand on the spot. There is no reason why the rock wall, properly arranged, should not be a pronounced success, and as the present is by no means the best time to do the work, there is ample time to consider what is best. What we would like to know is of what class of soil the embankment is composed, whether light or heavy, clay or sand, and what facilities exist in your district for obtaining the usually employed rocks of limestone or sandstone. Other classes of rock would do if of a porous nature, granite being too impervious. On receiving your reply as to these matters we will assist you further.

A PORTION OF MESSRS. R. WALLACE AND CO.'S HERBACEOUS BORDER AND WALL GARDEN AT HOLLAND PARK.

TREES AND SHRUBS.

Bare ground beneath Cedars (*R. C.*)—If your trees are isolated specimens, with good, bare trunks, so that light can get beneath the branches, there is no reason why you should not grow grass beneath right up to the trunk. The best for the purpose is an annual grass named Poa annua. This seeds very freely and keeps on reproducing itself. If the shade is moderately dense, cover the ground with Ivy; if very dense, it is doubtful whether you will get anything to grow. The best shrubs for covering or carpeting ground in shady places are common

Ivy, Euonymus radicans and Vinca minor. Where tall shrubs can be admitted there is nothing better than Aucuba japonica.

Shrubs for a rockery (*D. Morris*).—Roses such as Frau Karl Druschki and Mme. Abel Chatenay are not suitable subjects for a rockery, although they are very beautiful Roses. If you think that you would like a Rose for the purpose, the double yellow Scotch Rose would be suitable; its correct name is Rosa spinosissima Harrisoni. The flowering period, however, is not a lengthy one, and you would probably be better pleased with a shrub such as Diervilla (Weigela) Abel Carrière or Spiræa canescens. Yucca recurvifolia would also be an excellent subject for the rockery, and as it is evergreen it would look well all the year round. Although it grows more than 6 feet high it is of very slow growth, and would be many years in attaining that size. When in flower it is one of the handsomest plants imaginable, but it cannot be depended on to bloom every year. The double yellow Rose you mention is probably Rosa sulphurea. Four really good climbing Roses are Tea Rambler, Hiawatha, Crimson Rambler and Moschata. The latter is a single white species, and if you prefer a double you could try Dorothy Perkins, Helene, or Alberic Barbier; the latter is yellow in bud and paler when fully expanded. It flowers for a considerable period. The blossoms are very fragrant.

THE GREENHOUSE.

Ants in Tomato pots (*L. F. B.*). Procure some Kilogrub or Alphol and scatter a small quantity on the rims of the Tomato pots and also some around the base of the pots, but not touching them. Then make a hole through the soil in the pots down to the drainage with a sharp-pointed stick about half an inch in thickness. In the hole drop a quarter of a teaspoonful of the powder and fill up the hole with water. The ants will quickly leave the pots; many of them will be killed and also all their eggs. If some of the powder is scattered in the runs the pests will soon leave the house.

Treatment of Salvia splendens (*E. A.*).—From now your plants of Salvia splendens may be given much the same treatment as Chrysanthemums that are grown for flowering in pots; that is to say, they may be stood outside till taken into the greenhouse towards the end of the summer, or, at all events, before the nights grow cold as autumn sets in. It is very possible that the leaves on your plants are attacked by red spider, to which this Salvia is particularly liable and which would cause them to drop. Your soil is rather light for Salvias, and it would be much better if of a more holding nature. Peat is not desirable; the best compost should consist principally of fibrous loam, lightened to a necessary extent by well-decayed manure, leaf-mould and sand. Of course, you will shift your plants into larger pots before turning them out of doors. As the pots get furnished with roots an occasional dose of liquid manure will be very helpful.

Fuchsias not flowering (*Louise*).—An exceedingly puzzling question, because Fuchsias, as a rule, bloom freely enough. Some varieties, however, are, as a matter of course, more floriferous than others. Your plants appear to be growing too luxuriantly; perhaps you treat them too liberally. Are they shaded too heavily? We can only suggest that you treat them in a less liberal manner and shade them no more than is necessary. Fuchsias are greatly benefited by being syringed on the evenings of hot days.

Culture of Begonias (*Captain C. W. G.*).—Cuttings of tuberous-rooted Begonias should be taken in the spring when the new shoots are about 3 inches long. If taken when the flowers are dying off very few will root, and even these few will die during the winter, as they have not had time to form tubers. The fibrous-rooted kinds may be struck throughout the greater part of the year, but even in their case the spring is the best time. In order to ensure seed the pollen must be taken from the double flower and transferred to the single seed-bearing one by means of a small camel-hair brush. Many of the very double flowers, however, do not produce pollen, but some is generally to be found on the semi-double ones. A point to bear in mind is that the more double the flower from which the pollen is obtained, the greater the chance of the progeny bearing double flowers. A good book on the subject is "Begonia Culture for Amateurs and Professionals," by B. C Ravenscroft.

Alterations to a greenhouse (*H. E. West*).—One point to be considered in connexion with your suggestion to remove the bench in the conservatory is that tall plants necessary for grouping on the floor are far more expensive than those that can be arranged on a stage or bench. It seems to us that the wider portion immediately facing the steps might be removed and a group of taller subjects arranged there, leaving the rest of the stage untouched. The other end that forms the terminus of the central path might be treated in the same way, or without removing the stage some of the plants could be elevated on inverted pots and a few stood on the ground in front of the stage, thus forming an effective group as a terminal feature. A central group, too, as suggested by you is also a good idea; but in this case, as the fancy tiles are most probably not carried under the present stage, they would, it seems to us, have to be relaid and, of course, an additional expense incurred.

Plants not thriving in a conservatory (*J. Gilhams*).—A difficult question to answer, there being so many possible causes why the plants do not thrive in your conservatory. In the first place, ribbed glass is not beneficial to the plants underneath, much the best arrangement being to have clear class with roller blinds for use when necessary. Next, is there, apart from the heat from the kitchen chimney, any chance of the fumes therefrom escaping into the house? It is also probable that the conservatory gets excessively hot at times, and, if so, this would also be injurious to the plants therein. In such a structure as yours too dry an atmosphere is a frequent cause of ill-health among the plants, and this may be minimised by a liberal damping frequently. Although the structure is too high for growing plants at their best, we do not think this is the main cause of the trouble.

FRUIT GARDEN.

Sloes diseased (*A. L. Ford*).—The Sloes are attacked by the fungus Exoascus pruni. This attacks the fruits in their very early stages, and where it attacks them they are induced to increased growth. The fungus hibernates in the soft bast of the twigs, and so when once a plant is attacked the fruits borne on the shoot already affected are almost certain to become affected in the succeeding year. When the disease attacks cultivated varieties, therefore, it is best to prune off the affected branches completely. Fresh parts of the trees may become infected by means of the spores which are being produced now.

Cherries diseased (*S. L. M. and Devonian*).—In both cases the Cherries are attacked by the fungus Monilia fructigena. This fungus passes the winter either on the fruit it has caused to decay or on the shoots. The young shoots are often killed by the fungus, and the leaves and flowers are also attacked. It can only be kept in check by pruning out during the winter and burning all dead and dying shoots, drenching the tree during the early spring with a solution of iron sulphate (iron sulphate 25lb., strong sulphuric acid one pint, water fifty gallons, mixed in the order named in a wooden vessel), collecting all decayed fruit and burning, and later (after the buds have burst) spraying with dilute Bordeaux mixture. The fungus spreads from dead twigs and from "mummy" fruits, whence the spores are carried by birds, insects, wind, &c., to infect new centres. Plums, Cherries, Apples, Pears, Rose heps, Hawthorn, &c., are attacked by the fungus.

An old Vine failing to set its fruit (*H. T.*). Your Vine has failed to set its fruit from sheer weakness, with no particular indication of bad health. Age in a Vine does not count when it is maintained in a healthy and vigorous condition. Some of the best Grapes we have ever grown were on old Vines. Our advice in your case is to keep the laterals well pinched in during the summer, in order that the Vine foliage and branches may be well exposed to plenty of light and air, so that they and the fruit-buds for next year not only may be well developed but well ripened too. The next thing will be to dig a trench 2½ feet deep and 2 feet wide in front of the border at a distance of 9 feet from the stem of the Vine, and extending the whole length of the border. Any roots encountered in cutting this trench should be cut off with a knife, as any roots extending beyond this limit will not be required again. Having dug out and carted or wheeled away the soil from this trench, you must next turn over the border to the full depth of the trench, throwing the soil behind you until the whole is turned over to within 3 feet of the stem of the Vine (both sides and front). While the work of turning over the soil of the border is going on, the utmost care must be taken of all the roots as they are come to, as on the good condition and quantity of these roots will depend the good progress the Vine will make afterwards. Having lifted the roots as far as suggested and thrown back the old soil in the process of doing so, the next thing you will have to do will be to satisfy yourself as to the drainage. If the subsoil is of a gravelly or other porous nature, no extra drainage need be added; but if of a clayey or stiff nature, then artificial drainage must be resorted to. Then build up a wall of turfy loam the same as that composing the border, a foot wide and as deep and as long as the border, at a distance of 6 feet from the stem of the Vine. The open space between the vinery and this wall of turf should be filled in with the following soil compound: To a barrow-load of turfy loam cut from an old pasture field (after the long grass has bee cut off) add a peck of old mortar or plaster rubble, or o brick ends, broken small, will do, a peck of lime, a gallo of quarter-inch bones and half a gallon of bone-dus mixing the whole well together. Let the roots be careful laid out and planted firmly in this new soil, and the resu in the course of a year or two will be (with, of cours careful attention to other necessary points of culture) th your old Vine will become rejuvenated and capable bringing you excellent crops of Grapes for many yea In overhauling and taking up the roots from the o border, means must be taken to have them covered ov with damp mats until such time as they are plant again. After undergoing this severe treatment of its roo the Vine must not be started too early into growth t following spring. The best time to lift the roots a replant is the autumn, as soon as the leaves have fallen.

KITCHEN GARDEN.

Is it necessary to thin ou summer Spinach? (*C. E. B. Kent*).- If the seeds are sown thinly, as they ought to b it is unnecessary to thin out summer Spinac In the case of Spinach for winter use the case different. This should be sown in rows 15 inch apart and the plants in the rows thinned out 6 inches between plant and plant. Thinned o in this way the plants make a hardier grow and resist the cold weather better than crowded together in the rows while growing.

Cucumber plants diseased (*D. W.*).—T symptoms described suggest eelworm as the cause of t trouble, but in the absence of specimens it is impossib to be sure. If eelworms are the cause, small swellin will be found upon the roots, and in these the eelwor live, having gained an entrance from the soil. It wou be inadvisable to plant Cucumbers, Melons or Tomat in the infested soil.

How to keep Potatoes in young co dition (*M. W. B.*)—The only way we know of is take them out of the ground in an unripe condition—th is to say, before their skins have set hard—and to at on bury them again in the soil in any part of the gard (not necessarily in boxes) until wanted, covering the over to the depth of 9 inches with soil to exclude lig and air, and frost also if kept through the winter.

MISCELLANEOUS.

Uses for soot (*W. Meyer*).—Soot is very valuable the garden in many ways. In the first place, it may i dry state be freely sprinkled over young seedlings different kinds, as it tends to keep them free from inse and prevents them being attacked by birds. In the ne place, soot-water is very beneficial to many plants wh applied occasionally to the roots, but the most adv tageous way to use it is in conjunction with liquid manu The mixture can be prepared in this way: Take an bag of rather loose texture, fill it with soot and securely. Then put this into the tub, tank or whate receptacle the manure-water is in and stir the bag abo occasionally, repeating this several times a day. T stimulating properties of the soot will in this way beco incorporated with the manure-water, and the mixture extremely useful for many plants in pots and for seve kinds of garden crops.

Names of plants.—*Miss Manby.*—Persian Yello ——*J. H. Griggs.*—Rose Tea Rambler. ——*X. G. H.* Melilotus officinalis ——*A. L. Ford.*—Olearia macrodon ——*H. Burton.*—Deutzia crenata (scabra) flore-ple (Veitch and Sons, Limited, Chelsea).—— *Vortigern.*— Maianthemum Convallaria; 2, Potentilla fruticosa; 3 a 8, Geranium Endressii; 4, Genista dalmatica; 5, Erige speciosus; 6, Hieracium aurantiacum; 7, Ranuncu platanifolius; 9, Erica Tetralix; 10, Sedum sexangular 11, Spiræa bullata; 12, Geranium sanguineum; 13, Genis sagittalis. —— *J. A. T.*—1, Geranium sanguineu 2, Lysimachia punctata; 3, Stachys grandiflora; Scutellaria baicalensis; 5, Salvia pratensis; 6, Lactu perennis; 7, Helianthemum vulgare flore-pleno; Claytonia sibirica; 9, Melissa officinalis variegat 10, Primula sikkimensis; 11, Veronica austriaca; Horminum pyrenaicum; 13, Potentilla nitida alb 14, Ranunculus amplexicaulis; 15, Silene species; Sedum Aizoon ——*Mrs. Munro.*—Cytisus purpureus Dictamnus albus purpureus. —— *A. B.* — Streptoso Jamesonii. The "hose-in-hose" arrangement of Mimu is not uncommon.——*R. V.*—Ligustrum japonicum (t Japanese Privet).—— *Mrs. M. G. M. D.*—1, Lych coronaria; 2, Iris sibirica orientalis; 3, Meconopsis ca brica; 4, Sidalcea malvæflora; 5, Viola cornuta; Hieracium aurantiacum; 7, Campanula latiloba.—— *Homfray.*—Both forms of Campanula persicifolia wit petaloid calyx. This is a most variable plant and th are many forms in cultivation.——*C. H. Sinclair.*—Clema Jackmanii alba.——*J. E. Gardiner.*—1, Stachys lanat 2, Corydalis lutea; 3, Veronica Teucrium dubia; 4, A plex hortensis rubra; 5, Saxifraga trifureata; 6, Pulmona species; 7, Alchemilla vulgaris; 8, Geranium sanguineu ——*J. E. Pullan.*—Polemonium cæruleum album (Jaco Ladder).——*J. Wade.*—Mentha Requienii and Geranium eriostemon.——*A. B.*—1, Chrysanthemum macrophyllu 2, Colutea cruenta; 3, Lychnis Viscaria.——*Norfolk.*— Tradescantia virginiana; B, Thalictrum aquilegiifolium.— *Walter de H. Birch.*—1, Rose Black Tuscan: 2, Leucot racemosa; 3, Gaultheria Shallon.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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Offices: 20, Tavistock Street, Covent Garden, W.C.

A COMBINED WALL AND ROOF GARDEN.

IN almost every garden there is some place required for the screening of a rubbish-heap, an ash-pit or a corner where a few of the many odds and ends required for the garden can be put away out of sight. It is frequently a problem how to prevent this from being unsightly, and various contrivances, more or less valuable, are adopted to secure the end in view. Lattice-work, hedges, walls and other fences are usually employed, and, while the trellis may be made beautiful by the presence of a Rose or other climber, it is often bare in winter and there is too much of the corner with its contents visible.

Under such circumstances there can be nothing more delightful than an erection combining both wall and roof gardening, with the combined advantages of screening and protecting the contents of the building. Everyone knows that even garden rubbish becomes evil-smelling if it is allowed to become saturated by rain, and a roof will do much to minimise this annoyance. Let us take, for example, the provision of some screen for covering a rubbish-heap, such as we often see in a small garden where it is inconvenient to dispose of the rubbish at once. This can be done by building a double wall and by covering it in with a roof on which can be planted the many flowers which will thrive under such conditions. The best material for the purpose is stone, not too smooth; and there is nothing better than what is known as rough rubble, but of a fair size, as few stones less than 9 inches or 1 foot in length being used as possible. Should stones be scarce and expensive, bricks can be used, but these look too artificial, and it is better in such cases to use brick for the interior of the wall and stone for the remainder.

The foundation should be excavated to a little depth, so as to ensure that it is firm and hard, and the largest stones placed at the bottom, laying these in mortar or cement if they are at all small. The foundation ought to be broader than that of the top of the wall, as the exterior of the latter should have a gradual slope inwards; but it must not be too great or the structure will be less substantial. Then the builder must first decide whether the drip from the roof should fall into the space between the inner and outer walls or be carried off. Personally, I prefer that it should so fall, as by this means less watering is required. This I followed successfully in one I built myself, and which has stood for years and is now, I believe, occupied as a poultry-house, my ownership coming to an end when I removed to my present garden.

The inner wall, whether of brick or stone, should be built up at the same time as the outer one, and space between the two should not be less than 1 foot at the top, and even 18 inches will not be too much. It is an advantage to have a good body of soil in the wall. The inner wall may be perpendicular, and it should be bedded with cement or fine concrete, as this will prevent moisture from percolating through the joints.

The object in building the two together, as well as the ends, is to have them properly bound together, which is secured by putting stones across at intervals between the two walls and joining the two, so as to prevent them from opening. At the time the work is progressing, the soil, which should be good loam, ought to be put in, and it must be well beaten down from time to time lest cavities be formed as it sinks, which will be detrimental to the plants. The outer part of the wall may either be built dry, as in the case of a dry stone fence, or partly with good mortar or cement. Plenty of cavities should be left, however, for the insertion of plants, and, as far as possible, these must be planted as the work of building proceeds. The inner wall, if the structure is a small one, may be 4½ inches thick; but if large, 9 inches will be better, especially as it should bear the weight of the rafters for the roof. It will be found desirable, even for a rubbish-heap, to have a door with a latch, instead of a mere opening, and ventilation must be provided near the top of the roof. In most cases the structure will be against a wall, and a lean-to roof is all that is required. The rafters should be fairly thick, about 4½ inches by 2 inches being suitable for most small roofs of this class. Some use small iron rafters, such as those made from old rails.

The simplest roof is that made of corrugated iron, well pitched and then covered with about 2 inches of soil. The slope should not be too great, or the soil will be washed away before the plants are established. If slates are employed there should be a greater fall. A flat roof of concrete does not look so well as a sloping one, but one of concrete can be put on if preferred.

There is but little limit to the plants which can be employed in such a structure. In the wall the smaller Campanulas, Sedums, the encrusted and London Pride sections of Saxifrages, Silenes, Tunica Saxifraga, Wallflowers, Erinus alpinus, Dianthuses (including some of the choicest), Helianthemums, Aubrietias, Arabises and most of the smaller and most easily-grown alpines will thrive. On the shady side, should there be one, the encrusted and London Pride Saxifrages will also grow, and no place could be better for the Ramondias or Haberleas than this

shady side of the wall. On the roof the taller Sedums, Dianthuses of the more erect-growing forms, together with the lovely single varieties of Dianthus plumarius, Wallflowers and, last but not least, Bearded Irises will flourish. The latter can be grown with a carpet of dwarf Sedums, such as S. lydium, S. album or S. acre, and there is nothing more delightful in their season than a mass of these Irises in bloom on the roof, with their translucent petals of various colours and the sun shining through them.

The plants on the roof will require watering for a time until established; but it will only be needed in continued dry weather afterwards. As I know from my own experience, such a building will not only form a screen and a protection, but will also give to a garden a feature of almost unique interest.

Dumfries. S. ARNOTT.

NOTES OF THE WEEK

FORTHCOMING EVENTS

July 23.—National Sweet Pea Society's Exhibition, Horticultural Hall, Vincent Square, Westminster.

July 28.—THE GARDEN Flower Show, Horticultural Hall, Vincent Square, Westminster, 1 p.m. to 6 p.m. Admission free.

July 30.—Cheadle and Cheadle Heath Horticultural Society's Show (two days).

Flower Show for Our Readers. The forthcoming exhibition of flowers, fruit and vegetables which has been arranged for our readers will, as previously stated, be held on the 28th inst. at the Royal Horticultural Society's Hall, Vincent Square, Victoria Street, Westminster, S.W. We would like to impress upon all those who intend exhibiting the necessity for filling in and returning the entry forms at once. Already we have received a large number of entries, and the show promises to be an exceedingly good and interesting one. Admission will be free from one o'clock until six o'clock, and we hope as many of our readers as possible will make a point of attending and bringing their friends with them, even if they are not exhibiting, as we believe there will be plenty of first-class exhibits to be seen.

June Competition for Readers.—Owing to the difficulty in judging the essays sent in for the June competition, we are unable to announce the results this week, but we hope to do so in our next issue.

National Sweet Pea Society's outings.—On Friday, the 16th inst., a large number of members travelled to Reading to inspect the society's official trials, which have been conducted in the University College gardens by Mr. C. Foster, and, notwithstanding the inclement weather, a most enjoyable time was spent. We hope to refer to these trials more fully in a future issue. The next day about forty members visited the seed grounds of Messrs. Cooper, Taber and Co. at Witham, where, unfortunately, the Sweet Peas were not quite forward enough for inspection. After being entertained to lunch by the firm, the party left Witham in conveyances kindly provided by Mr. William Deal and Messrs. E. W. King and Co. for Kelvedon, where about thirteen miles of Sweet Peas were inspected on Mr. Deal's Brooklands estate. Some very beautiful and promising new varieties were seen here, one being quite a new rosy mauve shade and another being an improved George Stark or an intense scarlet waved Queen Alexandra. A very good strain of Auricula-eyed Sweet Williams also attracted much attention. After tea the party left Kelvedon for Coggeshall, where the growing crops of Messrs. E. W. King and Co. were inspected, after which another tea was provided and a tired but happy company left for London. Great credit is due to Mr. C. H. Curtis and Mr. H. J. Wright for the excellent arrangements, which added much to the enjoyment of the outings.

Mr. Gumbleton's garden, Belgrove, Queenstown.—We have received a most interesting and instructive note from Mr. Gumbleton detailing the contents of certain portions of his garden at Belgrove. In flower there now are choice Delphiniums, Dimorphotheca aurantiaca, Coreopsis King of Tom Thumbs, hybrid Montbretias, Bidens pilosa, Salvia splendens Fireball, double white Ten-week Stock Bismarck, Tropæolum fimbriatum Isola Bella, Dahlia lignea, Linaria dalmatica, Glaucium Fischeri, Argemone grandiflorum, Symphiandra Hoffmannii and S. asetica, Alyssum spinosum roseum, Lychnis cognata, Campanulas amabilis, betonicæfolia and michauxioides, Gladiolus princeps, and a bed of Calla elliotiana carpeted with Carter's Eschscholtzia hybrida Diana, new annual Calandrinia chromantha, Campanula peregrina or primulæfolia, Lobelia cardinalis Firefly, Inulas Roylei, glandulosa superba, fimbriata and speciosissima, Crinum Powellii album, Brachycome iberidifolia Blue Star, Anchusa capensis, A. furcata, Helichrysum monstrosum flore-pleno, Impatiens Oliveri and all the best forms of Chrysanthemum Leucanthemum or Ox-eye Daisies. These, with other flowers, are used in the beds, forty-two in number; but want of space prevents the entire list being given. The contents of twenty-two small round beds dotted about the garden are Geranium Lowii or anemonefolium, Dahlia Collerette Maurice Rivoire, Aster flore-pleno Beauty of Colwall, Dahlia coronata, D. odorata Bruantii, Dianthus Comte de Kerkove, Antirrhinum calycinum, Pæonia Germania (sweet-scented), seedling Tweedia cærulissima, Hemerocallis disticha flore-pleno, Salvia dichroa, Lupinus polyphyllus roseus, Lilium speciosum Henryii, Incarvillea grandiflora or Fargesii, Tunica Saxifraga flore-pleno, Roses Lady Gay, Perle des Neiges and Hiawatha, Lathyrus panonicus Smithii and Montanoa mollissima.

Notes from Wisley.—How beautiful just now are the Japanese Irises, which grow in such large quantities in the long serpentine gully away on the right of the glass houses! Everyone who has a dell or ditch, or will make a similar cutting through which a thin stream of water can percolate, should see these Kæmpferis at Wisley. Very many are self-sown seedlings, and should any that are inferior flower they are eliminated. There are few gardens anywhere that can show a more beautiful display of these glorious Irises than can be seen at Wisley. Very recently I remarked upon Messrs. Barr and Sons' planting of Lilium giganteum in water at Long Ditton. Away in a retired part of the Wisley wild gardens is a group of some ten or twelve plants of this Lily, all in grand bloom. The stems range from 6 feet to 8 feet in height, and each one carries a fine head of bloom. Grown here amid a distinctly woodland surrounding, beneath overhanging trees and on soil that is evidently moist, this group is indeed a beautiful picture. How much it made me wish when I saw it that colonies of many of our finest Lilies could be planted in the same way. Not far off Lilium Hansonii, in a clump, was flowering gloriously. Lilium auratum has grand flowers, but so many others seem to be much more graceful and ornamental. The Vines in the large span house devoted to Grapes are again this year fruiting superbly. It is indeed now a rare circumstance that anyone can see forty diverse varieties all fruiting at the same time. It is hoped that a remarkably fine show of ripe Grapes will again be made at Vincent Square in the autumn. Little effort to force is made, all the varieties being grown in very moderate heat. Mr. S. T. Wright mentions that Prince of Wales, although fruiting well, has somewhat small leafage and needs thin shading in broad sunshine. A very inclusive trial of Cabbage Lettuces for testing both varieties and nomenclature has been conducted this season, and has given the highest satisfaction.—A. D.

An Irish horticultural society.—We have received a copy of the schedule of the Kingstown Horticultural Society, whose show is to be held in the Public Park, Kingstown, on Wednesday, August 11. The schedule is a good and comprehensive one, and although the prizes are not large, there should be a good display of Roses, Dahlias, Begonias, greenhouse plants, Sweet Peas, Carnations and general hardy flowers, together with fruits and vegetables, for all of which classes are arranged. Full particulars can be obtained from the hon. secretaries, Municipal Technical School, Kingstown.

United Horticultural Benefit and Provident Society.—The monthly meeting of this society was held at the Royal Horticultural Hall, Vincent Square, Westminster, on Monday, July 12. Mr. Charles F. Harding was in the chair. Eight new members were elected. The death certificate of the late Mr. William Colton was produced, and a cheque for £71 10s. 2d. was drawn for his nominee, being the amount standing to the late member's credit in the books of the society. The usual quarterly payments from the Benevolent Fund were made, and two lapsed members' accounts paid out. A cordial vote of thanks to the chairman ended the meeting.

Hemel Hempstead Rose and Sweet Pea Show.—The second annual show was held at Hemel Hempstead on Wednesday, July 7, and the society is to be congratulated on the pretty effect produced. Entries were numerous and the large marquee well filled. In the open class for Roses, Messrs. Burch of Peterborough won the first prize; while for Sweet Peas Mr. Waterton of Heath Farm House Gardens, Watford, secured the premier honours. For six vases of Sweet Peas, Mr. Percy Cottam of King's Langley showed most excellent flowers; and Mrs. Maitland Thompson was placed first for a basket of Carnations. Some 40 feet of tabling was covered with an honorary exhibit from the gardens of Mrs. Longman at Shendish, and consisted of a series of arches of miniature Roses and Smilax, vases of Pæonies, Roses, Sweet Peas, Geums and a choice collection of other hardy herbaceous flowers. The effect produced was so universally admired that the society intends forming a class for decorated arches.—ONLOOKER.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Some Roses at Wisley.—It is so common on the part of rosarians to advise planting Roses on stiff, retentive soils that it is just possible many persons not favoured with such stiff soils refrain from planting these flowers. The soil at Wisley, especially on the south side of the gardens, is intensely sandy; indeed, it is little better than a deep, solid sand-bed; yet on it Roses grow splendidly. It is not so much the climbers, of which there are many on the tall poles which margin the Rose-borders of the entrance walk, as these it is well known are very accommodating. It is rather the Hybrid Perpetuals, Teas and Hybrid Teas, which seem to do wonderfully well, many of them flowering gloriously. But the other day a Rose of singular beauty and flowering wonderfully, making indeed the most beautiful of all bedders, was Zepherin Drouhin—flowers cherry red. Mildred Grant was carrying superb blooms. Very fine also were Grand Duc de Luxembourg, Mrs. J. Laing, La Tosca and, not the least beautiful, Comtesse du Cayla.—D.

Pea Sutton's Early Giant.—I can fully endorse all Mr. Wythes's remarks in THE

GARDEN for July 10 about this Pea; but I do not think the illustration does it full justice, as I see there it only gives eight Peas in a pod, and I have had plenty this year with ten and eleven Peas in each.—H. A. KING, *Rempstone, Corfe Castle.*

Artificial manure. — I am greatly obliged for the courteous reply of "A User of Spent Hops" to my recent query, and I should be further obliged if your correspondent would kindly inform me whether the same items are alone sufficient even for Asparagus; and, if so, when, how and in what quantities the material should be applied. It would seem difficult to dig these in without risk of injury to the crowns. The quantity of Hops advised for ordinary crops is, I think, 1lb. to a square yard, which seems very little and rather a rough-and-ready measure, seeing the weight varies so much according to the amount of moisture in the Hops. A recent consignment to me was very wet.—A. W. M.

A fine Tree Lupine.—Having had the pleasure of taking your valuable weekly journal for several years, and getting so many "tips" from it, I thought you would like to have an amateur's photograph of a Tree Lupine (*see* page 360) which I bought as a very tiny plant from Mr. Prichard, of Christchurch fame. It is only two and a-half years old, measures 12½ feet in width and is 9 feet high. Not only has it bloomed for a month, but the perfume is delightful. We had a very cold winter; in fact, it registered in my garden once 19° and at another time 21° of frost, so they can be called hardy plants. I do all my gardening myself, but, of course, only have three-quarters of an acre. It struck me that the Tree Lupine should be more cultivated, and if properly trained can be made to look a perfect picture.—DAVID LORRIMER, *The Rosary, The 3rd Avenue, Branksome Park, Bournemouth.*

Eremuri at Easton Grey, Malmesbury.—The accompanying illustration is from a photograph kindly sent to us by Mrs. Graham Smith, and represents Eremurus robustus elwesianus and E. himalaicus growing in the gardens at Easton Grey, Malmesbury, Wiltshire. The photograph was taken on June 30, and the total height of the tallest spikes was then 9 feet, the length of the flower-spikes ranging from 4 feet to 5 feet.

Cistus ladaniferus.—This variety is the true Gum Cistus, and just now (July 12), where the writer is employed, looks extremely pretty. It is somewhat fastidious in its requirements, and so, perhaps, for this reason is not very often met with. A warm, sheltered position is necessary and the soil should be rather dry. So treated, it will weather the worst of winters successfully. This shrub has large, showy flowers, the petals of which are creamy white, with a purple blotch at their base, and are borne in clusters of three to five. Not being of a rampant-growing character it seldom requires pruning; in fact, it can go several years together and not be touched. Five feet to 6 feet is its general height. The plant under notice is facing west to south-west.—C. T., *Ken View, Highgate.*

A black Pelargonium.—The variety with very dark—indeed, almost black—leaves, referred to on page 330, is doubtless the somewhat old black Vesuvius. I saw it used as a bedder in the Forbury Gardens, Reading, some three or four years ago. It is less robust than the original variety, from which, like West Brighton Gem, it seems to have been a sport. It is known in commerce also under diverse names. The foliage presents a striking contrast to that of Flower of Spring Silver-leaved Pelargonium. —A. D.

THE FRUIT GARDEN.

EARLY STRAWBERRIES OUTDOORS.

THERE is always keen rivalry among Strawberry-growers to be first in gathering the first dish of outdoor berries of the season, and as there is often a scarcity of these fruits between the indoor and outdoor crops, the first outdoor gathering is most anxiously awaited. With a little extra care and trouble the earliest crop may be very much forwarded, and the Strawberry season considerably extended in consequence. For the first supply of outdoor fruits we plant annually a long border about 12 feet wide at the foot of a south wall. This border is considerably raised and made to slope rather precipitously from back to front. From these plants we gather fruits quite ten days earlier than from those planted in the open, and four or five days earlier than from two year old plants in the same position. The plants are put out as soon as they are well rooted, which is usually at the end of July or beginning of August. This gives them a chance to get well established before the end of the season. La Grosse Sucrée is the first to ripen; but it is a very moderate cropper, and should not be included where large quantities of fruit are required. Laxton's Noble follows the latter very closely, and, though it is wanting in flavour, it makes up for this by its heavy cropping qualities. For general good qualities Royal Sovereign is by far the best. We commenced gathering this year on June 14, several days later than usual, owing to the season being so late. As these plants flower very early in the season, it is obvious that there must be some ready means of protecting the blossoms from frost. For this purpose we erect a temporary framework with canvas blinds fixed at the back. These are let down every night.

Frogmore. E. HARRISS.

WELL-GROWN EREMURI IN THE EASTON GREY GARDENS, MALMESBURY.

FRUIT NOTES.

BUDDING.—To the enthusiastic cultivator every operation in connexion with his garden is full of interest; but there is no doubt that there are certain details which, calling for decidedly more than the ordinary skill and care, are especially fascinating. Among such as these ranks budding, whether it be applied to fruit trees or to Roses. There is so much that the worker has to look forward to after making so small a start that budding is commonly done as a hobby when the plants produced are not required and have to be passed on to friends or thrown away. The present is an excellent time for the insertion of buds, since the bark is working freely and the buds can be secured and prepared in splendid condition. Although the operation indubitably calls for a considerable amount of skill and care in the use of a knife of razor-like sharpness, there is not the slightest reason why anyone should not succeed.

A clean, healthy stock is imperatively necessary, and in the bark two cuts must be made—the first an upward one from 1 inch to 2 inches in length, and the second a cross one of about half an inch; the knife is then reversed, or a flattened piece of hard wood is employed, and the bark on each side of the cut downwards is carefully opened. The stock is then ready for the insertion of the bud, which is slipped into position and worked well down so that the bud itself, which stands midway in the sheath, is situated at about an equal distance from the top and bottom of the incision prepared for its reception. Tying in with bast or soft string completes the operation, and the only point that one has to keep in mind in reference to this is not to bring the cross-over so that it comes in the axils of the leaf, or the bud will certainly be choked.

All this is simple to the careful worker, and it will not be in this direction that danger of failure will lie. The most delicate part comes with the preparation of the bud. This, of course, is cut from a growing shoot, and to secure it the growth is taken in the left hand and the knife inserted beneath and drawn slightly inwards until the bud is cleared, when it is drawn outwards again; the thinner the piece secured the better, since there is not as much wood to be removed, but the base of the bud must not be cut. When the bud is out in its sheath the point of the knife is inserted and the wood removed; and upon the manner in which it parts from the sheath judgment may be formed as to the suitability of the bud for the purpose. If it flies out it may be assumed that the bud is over-ripe; if it hangs tightly it is under-ripe, and in neither case is it likely to grow. As it comes out there should be a feeling of adhesion, but not of tightness, which might give one the impression that the base of the bud will be torn.

It is quite possible that growth will soon push, and when this occurs the first ligature must be promptly removed or, cutting into the bark, it will do injury; it is, however, necessary to put on a second one, or there is great danger that the new shoot will be blown out before the union is perfect. With the progress of growth in the bud the stock should be cut down to the point of insertion, and in this the utmost care is essential that the tender shoot shall not be injured in the slightest degree. If, as is comparatively common, the buds are procured from a distance, it is most important that they shall not be allowed to become dried and wilted on the journey, or it is futile to expect that they will bring satisfaction. FRUIT-GROWER.

THE ROSE GARDEN.

THE BEST ROSES FOR COLD, LATE GARDENS.

MANY readers of THE GARDEN on the north side of the Tweed must at times be discouraged at the poor results obtained from many of the finer Roses, and feel inclined to give up the cultivation of the Queen of Flowers in disgust. I have also had a large share of disappointment during a number of years, as this garden is very late and damp, and numbers of Roses make their growth so late in the season that it has no chance to become ripened before the winter. The result is, of course, that all these soft shoots are killed back by frost, and the following season any blooms produced are poor and out of character, while eventually the plant dies. Now there is only one certain remedy for this undesirable state of matters, and that is to plant only such varieties as give satisfaction every year. Far better cultivate half-a-dozen sorts that thrive than attempt 100 varieties that as often as not fail even to grow satisfactorily. During the last five or six seasons I have noted all that do best here, and feel certain that as they always succeed in this high, cold locality, they will do so nearly anywhere. We have tried considerably over 150 varieties of different types, but I am certain that not fifty of these can be relied on year after year.

Pure Teas we have given up, except a very few at the bottom of a brick wall facing south. Even in that favoured spot they are of little use. Of the finer Hybrid Teas we have tried a great many, but are thinking of reducing these to half-a-dozen or so. The best are Caroline Testout (the finest of all Roses here), Lady Ashtown, Clara Watson, Antoine Rivoire, Dean Hole, Killarney (very bad for mildew some seasons), Le Progrès, Liberty, Mme. Abel Chatenay, Mme. Ravary, Marquise Litta, Prince de Bulgarie and Viscountess Folkestone. The best of the Hybrid Perpetuals are Captain Hayward (our best dark Rose), General Jacqueminot, Jeannie Dickson, Mme. Isaac Pereire (grand as a climber on wall facing east), Margaret Dickson, Marie Baumann, Marie Finger, Mavourneen, Mrs. John Laing, Mrs. R. G. Sharman Crawford, Suzanne Marie Rodocanachi and Ulrich Brunner. Among climbers the only really satisfactory sorts are Dorothy Perkins, Leuchtstern, Ards Rover, Gloire de Dijon, Climbing Mrs. W. J. Grant, Climbing Caroline Testout and Grüss an Teplitz. C. BLAIR.

Preston House Gardens, Linlithgow.

NEW ROSES AT HOLLAND PARK SHOW.

THE splendid exhibition arranged by the Royal Horticultural Society and held in the beautiful grounds of Holland House, marred though it was by rain, provided the visitors with a most sumptuous feast of flowers, surpassing, in the opinion of many experts, even the glories of the Temple Show. Coming a few days later than the National Rose Show, it has of late years enabled our leading Rose-growers to display a far more interesting number of novelties than is possible at this earlier show. This year will probably be voted the best from this point of view. Surely a more notable group of new Roses was never displayed than that of Messrs. Alexander Dickson and Son of Newtownards. This noted firm had more than two dozen of their wonderful creations displayed, not in meagre fashion, as is too frequently the case when a new Rose is first shown, but in grand quantities of a sort that demonstrates at a glance what a Rose is worth. Perhaps to the lady visitors the most beautiful variety was

Duchess of Wellington. The comments one heard about this Rose must have been gratifying to its raisers, some describing it as a darker Mme. Ravary. The colours, if one can attempt to describe them, are a deep coppery saffron yellow. With such a colour and a flower of the Killarney type, but with larger petals and of greater substance, surely the acme of perfection is attained! This was given an award of merit, which it richly deserved. Perhaps the next favourite, if that be the right word where all are admired, is

Walter Speed, to which the society gave its award of merit. This seemed a very poor award for a Rose that bids fair to supplant such a favourite as Antoine Rivoire. The flowers are of immense size, of a deep lemon yellow colour, which fades to milky white.

Grace Molyneux also received an award of merit and was greatly admired. It reminds one of the old Rose Rubens, but is far better. The colour is creamy apricot, with a flesh tint in the centre. From the fine blooms exhibited, cut with such long stems, one could see that we have in this Rose one of rare value for our gardens, and the beauty of form will evidently find favour with exhibitors.

A grand yellow variety bids fair to take the Rose world by storm. At present it is unnamed, the privilege of naming it being accorded to the eminent American horticulturist, Dr. Huey. This Rose reminded me of Etoile de Lyon, but doubtless a more suitable variety for British gardens, for it seemed to be a variety that would suit our climate better. This Rose must be a great gain to the Tea-scented group. Another superb yellow is

A. H. Gray. I thought that it would be an improvement on Medea, for, grand as this Rose is, one cannot recommend it as a really useful sort to the ordinary grower.

Mrs. Hubert Taylor was much admired by exhibitors. Such a Rose would have gladdened the heart of the late Rev. Foster-Melliar, who knew how to grow Mme. Cusin, a Rose it much resembles in form, although in its delicate pale Muriel Grahame tint and stronger growth it will evidently be of greater usefulness.

John Cuff is a Hybrid Tea that has gained many admirers. It is delightfully sweet, and has such immense outer petals that it appeals to me at once. The colour reminds one of Rev. Alan Cheales, only perhaps clearer in its carmine pink colouring. The high, pointed centre will make it a Rose to be sought after by exhibitors.

Lady Ursula I noted as a glorified Viscountess Folkestone. It is a grand flower, of great substance, and one that will, I am sure, be of immense usefulness in our gardens. A stand of

Elizabeth Barnes was a marvel of colouring, reminding one of Farbenkönigin, but with a more lovelier formation of flower. I cannot speak too highly of this Rose, and should advise planters to use it largely.

Other fine varieties shown in this splendid exhibit were Jas. Coey (a deeper-coloured Mme. Hoste), Mrs. D. Jardine, Mrs. H. Brocklebank, F. E. Coulthwaite, F. R. Patzer, Theresa (a general favourite with the ladies—a sort of Ma Capucine coloured Rose), G. C. Waud (of lovely shade), Molly Sharman Crawford, Nita Weldon, Harry Kirk, Marie Kenyon, Margaret Molyneux, Mary Countess of Ilchester (a most abundant bloomer), and Mrs. A. Munt (a real beauty of a delicate chamois yellow).

In the splendid group displayed by Messrs. William Paul and Son of Waltham Cross I noticed

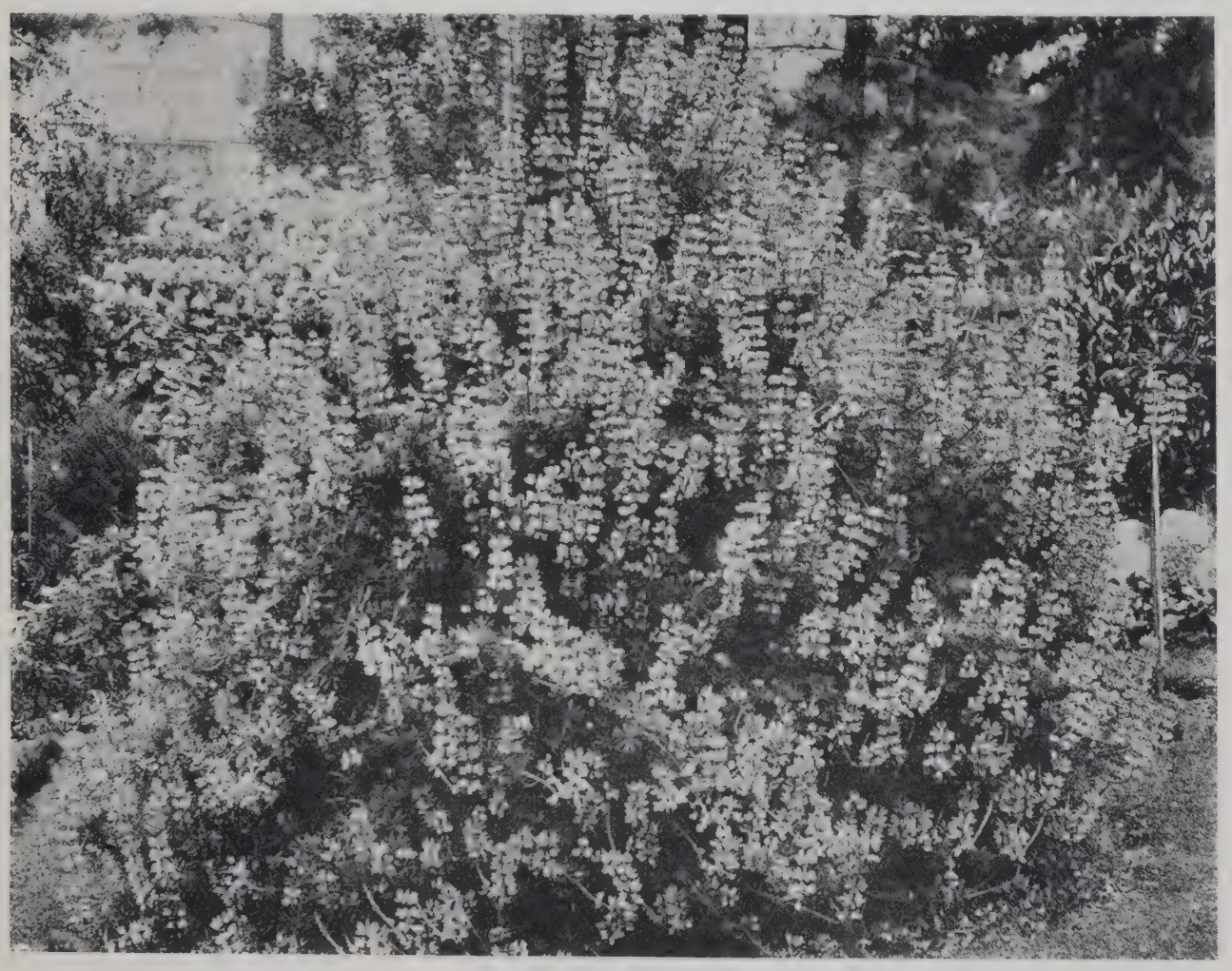
Juliette, a remarkable hybrid from Soleil d'Or, having carmine-pink blooms, the backs of the petals being of old gold colour.

Bianca, a lovely Hybrid Tea Rose of delicate mauve and white shading.

Alice Cory Wright (Hybrid Tea).—A rich glowing shell pink colour of remarkable tinting and a fine bold flower.

Cynthia, lemon yellow, of the Kaiserin Augusta Victoria type, but of greater vigour; and

Hugo Roller, a charming Hybrid Tea of an exquisite combination of colours, lemon yellow and rich crimson pink outer petals. Doubtless, on a well-drained warm soil this Rose will come a remarkable colour, as will Lyon Rose under similar conditions.



A TREE LUPINE (LUPINUS ARBOREUS) IN A BOURNEMOUTH GARDEN. (*See page 359.*)

Messrs. Le Cornu and Sons of Jersey brought a very good seedling of Mrs. W. J. Grant which they named

Mrs. Philip Le Cornu.—It is a much deeper shade of colour than the well-known variety, having been raised from that sort by crossing it with a dark Hybrid Perpetual.

Messrs. Merryweather and Sons exhibited a fine mass of their delightful new Polyantha Rose *Jessie*, a most glowing scarlet red colour which will be a great boon to all who use these little Roses for edging or bedding purposes, and it must be a grand pot Rose for decorative work.

Messrs. B. R. Cant and Sons exhibited a new Tea Rose named *Beatrice*, which is rather confusing, seeing there is already a Hybrid Tea of that name. The colour is very remarkable, somewhere between Sunrise and Beauté Inconstante, but the flower is thin.

Messrs. Paul and Son, Cheshunt, had some delightful novelties in ramblers, the best beyond a doubt being *Shower of Gold*. It is to be hoped Messrs. Paul will soon put this Rose on the market, for growers are impatient to obtain such a colour, which is sadly needed, especially in our weeping Roses. The flower is very double, of perfect form, and of a tint midway between W. A. Richardson and Alister Stella Gray. It is also said to have perpetual-flowering qualities, and, having a wichuraiana growth, it will become a general favourite, I feel sure.

Ariel is a very elegant rambler, also of the wichuraiana breed, a cross, I believe, between this tribe and Tea Rambler. The blooms are something like Irish Glory, and cannot fail to make a lovely object as a pillar or arch Rose.

Gipsy is scarcely of sufficient character, I think, although pretty. It is a sort of creamy Helene.

Buttercup has lovely golden buds of a rich buttercup tint; very beautiful. So also is *Goldfinch*, a great improvement on Electra.

The splendid box of Lyon Rose, exhibited by Mr. G. Prince, was a great attraction. It must be a general favourite. Doubtless soil and situation will affect the colouring of this Rose to a great extent; those having a warm, gravelly soil will produce it of a really intense shade, especially with the aid of a little guano. P.

ROSE BOB DAVISON.

THIS brilliantly coloured Hybrid Perpetual was sent out by Messrs. A. Dickson and Sons in 1902, and I am surprised it is not more grown. I think it must be that the variety is seldom seen at our exhibitions, although it has most perfect form with pointed centre, but it has not the staying powers needed in an exhibition Rose. As a garden variety it is very valuable, giving us a delightful bit of colour with its dazzling scarlet buds and blooms. It is scarcely so profuse in its blooming as to warrant me calling it a good bedding Rose; but this variety could well be planted in the centre of a bed, as its growths are erect, and the outer part of the bed filled with those brilliant novelties Charlotte Klemm and Ecarlate. I think the grouping of two or three sorts in one bed, providing they are of a similar shade of colour, is a very good plan, as this relieves the bed of a certain monotony which exists if only one variety is planted in it, besides providing us with a greater variety of forms. If one or two standards are desired to dot over a large bed of the sort named above, what better variety could one suggest than Grüss an Teplitz? This grand Rose is so very brilliant and so showy in autumn, especially grown as a standard, that one marvels it has not been in greater demand in this form. P.

THE FLOWER GARDEN.

PRIMULA LITTONIANA.

THIS remarkable Primula was fully described on page 354 of our issue for the 17th inst. As stated there, it is an absolutely unique addition to the Primrose family, the flower-spike reminding one more of a British Orchid than a Primula. The pendulous, cone-shaped flowers are of deep lilac colour, the calyces being brilliant red. It was collected in Yunnan by Mr. Forrest, who has been travelling for Bees, Limited, Liverpool, by whom it was exhibited before the Royal Horticultural Society at Holland Park on the 6th and 7th inst., when it received a first-class certificate.

THE NEW PRIMULA LITTONIANA. (*Slightly reduced.*)

THE HARDY PRIMULAS.

(*Continued from page 339.*)

PRIMULA VITTATA.—Another of the recent introductions of Messrs. Veitch from Western China, growing at an elevation of 9,000 feet to 10,000 feet in bogs and marshes. A biennial, it may be described as a rose-purple-coloured P. sikkimensis, which it resembles in habit and in the pose of the flowers. The upper part of the flowers, stems and calyces are covered with a white mealy powder. It requires the same conditions as the Himalayan plant, and will form a fitting companion to grow with it.

P. wulfeniana comes from the limestone Alps of Eastern Austria, and is an excellent rock plant with large deep purple flowers. Wedged between stones in a half-shady position it grows freely, producing its flowers in April.

PRIMULA HYBRIDS.

Besides the species mentioned, which are all in cultivation, there are numerous natural hybrids found in various parts of the European Alps and Pyrenees, apart from those which have been produced in gardens. Some of these are of great beauty, and in some cases easier to grow than the typical species. Most of them will flourish under the conditions which suit their several parents.

P. Arctotis (Auricula × hirsuta).—This natural hybrid is found in the calcareous Alps of the Engadine and Tyrol, and has velvety red-brown flowers of the type of Kerner. Under cultivation, however, many beautiful varieties have been produced by Mr. Arends at Ronsdorf varying to rose, yellow and white. The leaves are glandular, and show the influence of P. hirsuta, but not so much of P. Auricula. This plant is thought to have been the origin of the garden Auricula, as it has been in cultivation for some centuries. The various forms are easy to grow and do well in a somewhat shady border.

P. assimilis (superhirsuta × integrifolia).—Nearer to P. hirsuta in habit.

P. Bernina (hirsuta × viscosa).—Found in the Bernina Alps, with large downy leaves and purplish flowers. Intermediate between its two parents.

P. biflora (glutinosa × minima).—From the Tyrolese Alps, inclining to the latter parent, with large lilac-mauve flowers.

P. coronata (spectabilis × subminima).—Found in the Southern Tyrol and rare in cultivation.

P. digenea (elatior × acaulis).

P. dinyana (integrifolia × viscosa).—Intermediate, with dark purple flowers, and difficult to keep.

P. discolor (Auricula × œnensis).—Close to Arctotis, with white, yellow and rose coloured flowers.

P. Dumoulinii (superminima × spectabilis). From the Tyrol and nearer in habit to P. minima.

P. Facchinii (minima × spectabilis).—Like a strong-growing minima, with orbicular, bluntly toothed leaves.

P. floerkeana (glutinosa × minima).—Found at high elevations on the granitic Alps of the Tyrol, with rose-purple flowers.

P. Forsteri (viscosa × minima).—From the Alps of the Middle Tyrol, at an elevation of 3,000 feet to 6,000 feet. It is like a stout P. minima with crimson flowers.

P. Goebelii (superauricula × viscosa).—Alps of Styria, resembling P. Arctotis.

P. Heerii (integrifolia × viscosa).—From the high Alps of the Grisons and the Tyrol. A free-growing plant with crimson flowers.

P. Huteri (glutinosa × minima).—Tyrol.

P. intermedia (superclusiana × minima).—A rare plant from Styria.

P. Juribella (minima × tyrolensis).

P. muretiana (subintegrifolia × viscosa).—A free-growing plant, intermediate between its parents, with dark purple or crimson flowers

P. obovata (Auricula var. ciliata × tyrolensis).
P. Obristii is P. Auricula var.
P. Peyritschii (subauricula × hirsuta).
P. Portæ (Auricula × cenensis).—From the Alps of the Southern Tyrol, with bright carmine flowers freely produced on strong-growing plants.
P. Portenschlagii (clusiana × minima).
P. pubescens (Auricula × hirsuta).—Closely allied to P. Arctotis, with almost glabrous leaves. The flowers are variable in colour, and it is probably one of the parents of the garden Auricula.
P. rhætica (superauricula × viscosa).
P. salisburgensis (glutinosa × minima).—Very near P. floerkeana.
P. Salisii (hirsuta × viscosa).
P. Sendtneri (Auricula × pedemontana).
P. similis.—A form of P. Auricula.

(To be continued.)

NEW SPANISH IRISES.

WITHIN the last two or three years some fine new varieties of Spanish Irises have made their appearance in bulb lists. I have had the opportunity of growing a good many of them, and after two years' experience I can confidently recommend the following as some of the most desirable. The blue shades always appeal to me more than the yellows, whites or pale tones that we get in the old La Tendresse or Louise (Coquette des Blanches); hence it is with particular satisfaction that I have noticed that some of the greatest improvements are to be found in my favourite colour. La Nuit is a dainty flower of a pleasing shade of very dark blue, much deeper in tone than Darling, and of all the Spanish Iris race it more nearly than any other resembles the lovely I. reticulata. It has a slender, graceful stem and habit. Masterpiece is another fine blue, not so dark as La Nuit, but of a peculiar and distinct shade, which is relieved by an orange blotch on the falls. It is fairly tall and one of the latest to come into flower.

Souvenir and Excelsior are two very beautiful light blues in which there is not very much purple, or, we might say, in which the purple tone is reduced to a minimum. In the former variety the falls are paler than the rest of the flower and give it a lovely pearly look, while the latter is a real self and forms a splendid companion to Masterpiece, flowering at the same time. In Unique we get what is certainly the most distinct of the new varieties; in fact, it is a new break in Irises altogether. The upper part of the flower is dark blue, while the falls are pure white. It received an award of merit from the Royal Horticultural Society in June, 1907, and was much admired. Pearson is the last of the blues that I must mention. It is a fine large flower with a good deal of violet in its composition, and has very wide falls.

Passing from the blues, my particular favourites in the other colours are: Walter T. Ware (award of merit, 1907), a fine primrose yellow. L'Innocence, a large white of medium height with a very prominent deep yellow stripe on the falls; I think it is the most effective of all the whites. Sweetheart, a creamy yellow and white bloom, is distinguished by its peculiar imbricated falls, which give the flower a character of its own among Irises. La Citronniere has much the same colouring as the last, but it is later to come into flower. Surbiton is a good deep yellow, but I do not think it is any better than Cajanus; this last variety is very fine, and coupled with the earlier Chrysolora is really all that is wanted in this colour. Although an old variety I must mention Thunderbolt, especially now that it can be bought as cheaply as these newer ones. It is a magnificent yellow and bronze, and should be in every collection of these lovely flowers. Spanish Irises like a rich light soil, and they should be planted early; if possible, before the middle of October. Where the position suits them they may be left undisturbed for two or three years.

JOSEPH JACOB.

THE ROYAL WATER LILY (VICTORIA REGIA) AT KEW. (*See page 363.*)

SWEET PEA NOTES.

BUSH SWEET PEA FOLIAGE FOR VASES.—We all know that cut flowers as a rule look best when they are arranged with their own foliage. Now that Sweet Peas are cultivated so highly we get rather large and coarse leaves and shoots, and I have sometimes thought that these are a little heavy in vases, and that if we could only have them smaller and lighter looking it would be a great improvement. Just to see what they are like, I am growing this year a small collection of bush Sweet Peas, and while I do not think much of them as decorative plants for the garden, I have discovered that their foliage is the very thing that is wanted to go with cut flowers of the ordinary types. In future I shall always grow some for this purpose, and I feel sure that anyone who tries the same thing will not be disappointed when they come to arrange vases of Sweet Peas in 1910.

Is the Spencer Type an Old One?—"There is nothing new under the sun." The last example that proves the truth of the above saying is the Spencer Sweet Pea. I did think that the waved standard that we now know so well originated only a few years ago in a garden at Althorpe or Wem. Imagine my surprise when I saw, on the evening of the first day of the Holland House Show, at Messrs. Wesley and Sons of Essex Street, Strand, in a beautiful collection of flower-paintings by the best Dutch artists, a representation of a Pea with an undoubted waved pink standard and white wings. There was in the same group a second Pea with a reddish standard and bluish wings, which was of the ordinary grandiflora type with a deep notch in the middle of the standard. There were also an annual Larkspur and a Rose. There is no reason to doubt the accuracy of the drawing. The collection of paintings was formed and completed before 1850. This particular one is undated and unsigned, but from the look of the paper it was very probably done about 1820.

JOSEPH JACOB.

STEPS IN THE ROCK GARDEN.

READY means of access to the plants on the rockeries are always required, and where the rock garden is of any size it must be traversed by convenient paths, which, again, must rise above the ground level if the rock garden is of any height. In some cases sloping pathways will answer, and these are advisable as a change; but, as a whole, the introduction of flights of steps will be found most suitable, as they afford more scope for decorative treatment by the introduction of flowers between the stones. The illustration on the next page shows a simple flight of a few steps planted with alpines and giving convenient access to a rock garden several feet high. It is constructed of sandstone, and, as will be observed, some of the stones are not the full size of the tread, thus affording spaces for flowers between. At the base will be observed, to the right, the pretty Vancouveria hexandra with a mossy Saxifrage above it, and above that again a mass of Cerastium arvense, a useful thing for such a place. On the other side are several Sedums, or Stonecrops, and a clump of a selected variety of Aubrietia olympica. About the steps themselves are Arenaria balearica, mossy Saxifrages, Saxifraga Cymbalaria and a few other dwarf plants.

In the construction of such stairways it is essential for the comfort of the visitor that the steps should be made quite firm and that they should not be too rough, although great smoothness is not advisable, as it takes away the character of the garden. Even, however, where the only steps available are smooth and too finished, the free planting of alpines between will do much to modify the artificial appearance, and this is easily secured in such cases by leaving a little space between the tread and the rise of the higher step; in this soil and plants are placed, both being made rather firm, so that heavy rains do not wash them away before the plants have had an opportunity of getting fully established. It is well to remind those thinking of making rockwork steps that the plants on these should not be of tall habit, otherwise they will be injured by visitors. Such things as Arenaria balearica, Acæna Buchananii and some of the mossy Saxifrages are ideal plants for the purpose.

Dumfries. S. ARNOTT.

THE GREENHOUSE.

THE ROYAL WATER LILY.

VICTORIA REGIA, the Royal Water Lily, is, perhaps, the most remarkable of all aquatic plants, but opportunities of seeing it are not frequent, for it is only in gardens such as Kew, Regent's Park Botanic Garden, Glasnevin, and a few other establishments where special houses are given for its culture, that it may be seen. The great size to which it grows necessitates a large expanse of water, for it must not be crowded if its true beauty is to be obtained. The leaves are of unusual dimensions, often attaining a diameter of 6 feet, with a turned-up rim of 4 inches to 6 inches. Owing to their strength and the amount of space they occupy, they are quite capable of supporting a person weighing at least 10st. The upper surface of the leaves is bright green, the under-side being reddish, and the veins protected with ferocious spines.

The flowers are borne at intervals of two or three days from June onwards until late autumn. They are about 1 foot in diameter, white when they first expand, changing to a reddish hue as they age. Under cultivation the plant is treated as an annual, but it is really a perennial. Seeds are ripened in this country, but great care is required to keep them good between collecting and sowing. They must never be allowed to become dry, but must be stored in water in an equable temperature. The most suitable time to sow is the first week in January, and a temperature of 75° to 85° Fahr. must be given.

The young plants must be kept growing in pots, without a check, in the same temperature until April, when they should be placed in their permanent positions. One plant is, however, all that an ordinary tank will hold. A bed should be made of 4 yards or 5 yards (cubic) of good loam a week or two before the plant is to be inserted. The tank, which must contain hot-water pipes, should then be filled with water, and the whole allowed to attain a temperature of 85° before the plant is inserted. The temperature of the house at this period may be 70° to 75°, and higher with sun-heat. As it is essentially a sun-lover, no shading whatever must be given; in fact, the sunnier the season the better the plant thrives. Although really an indoor plant in this country, it has been grown and flowered successfully outdoors in South Wales. This occurred in a specially prepared tank in the garden of Sir John Llewelyn, Bart., at Penllergare, near Swansea. The plant is a native of Guiana and La Plata, and is common in many reaches of the Amazon. The illustration on page 362 represents a fine plant growing at Kew in 1908. R. V.

A PRETTY WINTER-FLOWERING GREENHOUSE PLANT.

(LOPEZIA MINIATA.)

THIS Mexican plant, which was first introduced nearly a century ago, would appear to have been lost to cultivation for some years, for it is only quite recently that it has been shown in a flowering state. Messrs. James Veitch and Sons of Chelsea exhibited it at some of the meetings of the Royal Horticultural Society last winter or in early spring, and the freely flowered little specimens were admired by many. It belongs to the Natural Order Onagraceæ, which includes at least one popular class of plants, viz., the Fuchsia. This Lopezia is a soft-growing subject which, if stopped once or twice during its earlier stages, forms a dense, freely branched little specimen, whose shoots are furnished with ovate leaves about 1 inch in length, thin in texture, and of a rather pale green colour. The flowers, which are borne singly on long slender stems towards the upper part of the shoots, are of a pleasing shade of bright reddish pink. They are so numerous that, though individually only about half an inch in diameter, a specimen when at its best is very attractive.

Cuttings of the young growing shoots taken in the spring strike root as readily as those of a Fuchsia, and treated in the same way the young plants make rapid progress. In the warmest part of the greenhouse, or in an intermediate temperature, it is seen at its best during the winter and early spring months. Throughout the summer it needs no fire-heat. During the summer this Lopezia is liable to be attacked by that little mite which often plays havoc among Begonias. In shape the flowers are remarkably singular and almost impossible to describe. H. P.

STONE STEPS IN A ROCK GARDEN.

GREENHOUSE CLIMBERS.

WHEN with little expense and a fair amount of ease, the roof of the conservatory, as well as the floor and stages, can be clothed with flowers or foliage, it always seems to me to make the surroundings doubly interesting, and I know of few subjects which give such a good return for the little attention they require than the Fuchsias. Their eardrop-shaped flowers, coming in clusters as they do in the summer months, lend themselves remarkably well for overhead treatment; but it is only when they are seen in a mature state and in their summer glory that a strong desire is felt to try them. Like most other plants that attain large dimensions, they are more at home when planted out than when given artificial and troublesome pot culture, whatever the size of the pot might be. To those who have not already tried the training of Fuchsias to the rafters of their greenhouse a real pleasure is in store, but it is necessary to begin early—first the cutting; then the small plant, which must be allowed to grow at will and, for preference, as a single cordon, keeping the side shoots well pinched; and eventually, when the plants are large enough, planted out in the positions in which they are to remain. Many an iron post which acts as a support can be made a thing of beauty by the companionship of a cordon-trained Fuchsia.

Of course, the plants are deciduous and require rest in the winter months; but this is more of a convenience than a drawback, for they can then be pruned, washed, cleaned and put in order for another year's duty. Once established, they are little trouble at the roots, for, like those of the Vine, they have a habit of wandering into every crevice, and seem to revel if they can get well under a brick or stone floor. Neither are they unlike the Vine in their requirements when being planted, for what will suit the Vine undoubtedly suits the Fuchsia.

Tropæolum lobbianum is also an inexpensive yet an admirable and useful plant for training overhead. It will cover an extensive area in a few years, and in the winter months its scarlet flowers are very welcome for cutting. Seeds of this should be sown early in the spring, and the plants given a good compost to grow in.

Cobæa scandens variegata.—Another useful yet somewhat neglected climber, usually grown for the beauty of its leaves. For large conservatories it gives a well-furnished effect, and if streamers are allowed to hang down 3 feet or 4 feet and more, its beauty is considerably enhanced. If small plants are purchased in the spring and a good start is given them by planting in a well-prepared soil and position, they are little trouble, and will find their way quite easily to the top of a house if given wire to cling to. When they have covered their available space a little thinning is necessary to prevent overcrowding, and a good cleansing at least once a week is necessary. This can be done with a syringe, garden engine or hose-pipe, providing, of course, the water is not too cold and that all tender plants underneath are moved beforehand. The effect of Cobæas is often spoilt by giving them too little water, which causes the leaves to turn yellow. They well repay for special care. GEORGE BURROWS.

Shendish Gardens, Hemel Hempstead.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

THE FLOWER GARDEN. — Liliums are now very beautiful in the flower garden, and where the plants have not been staked, no time must be lost in putting supports to them. Every plant is of much value, and after the trouble already expended on their cultivation is past, it is a pity to neglect to attend to them

I.—A SMALL BRANCH OF A GOOSEBERRY BUSH READY FOR SUMMER PRUNING.

during the flowering period. Lilium candidum has flowered freely in many gardens this year; but in others the plants have become badly diseased, in spite of every effort on the part of the cultivator to keep them free from it. As the blooms have faded, no time must be lost in getting the bulbs lifted and replanted in fresh positions. Before disturbing the bulbs, however, the cultivator must select the new position and forthwith trench the soil to a depth of at least 2 feet. In the lower half of the newly dug soil mix some well-rotted manure and thoroughly break up the lumps if the loam be of a clayey nature; and, furthermore, add a liberal quantity of gritty matter, such as that obtained from the roadside. The drainage of the ground should be thorough. Having prepared the new border, lift the bulbs carefully, avoiding bruising of the scales, as the latter would turn brown and decay if damaged. Replant the bulbs as quickly as possible 6 inches below the surface, surrounding them with sandy soil; and do not break off any of the flower-stems, as they must be allowed to decay naturally and then removed later on. Where light soils obtain, gently press down the portion immediately surrounding the bulbs, but not in cases where the latter are planted in stiff loam. In any case give a good watering when the planting is finished, and then refrain from supplying more from the watering-can unless the weather continues dry for a long time. Perennial plants in the herbaceous borders must have close attention now, otherwise they will become very straggling and present an untidy appearance. Pæonies and other kinds of plants that bear heavy blooms need special care in the matter of staking, else the flowers will lie on the soil. Continue to pick off all flowers of Sweet Peas almost daily, so as to prolong the blossoming period as long as possible.

Vegetable Garden.—Runner Beans are now commencing to bear pods freely, and in order to reap the best and fullest harvest of tender pods, all those large enough for use must be gathered; then new ones will form, especially if the plants are watered when necessary and mulched with half-rotted manure. Fresh Parsley is always welcome, and now is a good time to sow seeds on a sheltered border in gardens where the soil is nice and open and in roughly constructed frames where the soil is heavy and tenacious. The simplest kind of frame will do. One made with four boards placed on edge and nailed together at the corners, so as to support a glass light, will answer the purpose well. Do not sow the seeds thickly, and thin out the resultant seedlings to about 3 inches asunder; then bushy plants with well-curled leaves will be obtained. Protection overhead must only be given when severe weather comes. Endive is now coming in very useful, and in order to mitigate the bitter taste means must be taken to blanch the leaves. This can be done by placing clean tiles, boards, or slates right on the hearts of the plants, the outer leaves being left uncovered. On no account must the plants be covered while the leaves are wet with rain or dew, else they would decay. The same care must be taken in the tying up of Cos Lettuces at this season especially. Internal moisture will do much harm to the plants. The planting of late crops of Celery must be completed without delay. Do not make deep trenches—shallow ones are the best—then the plants reap the benefit of the best soil instead of the latter being used mainly for earthing-up purposes, as is the case where deep trenches are made. Soil must be kept from the centres of the plants, as it would cause premature decay of the stalks in winter-time.

Fruit Garden.—When the fruit has been gathered from the Gooseberry and Currant bushes, give the latter a good syringing with clear water to wash off aphides and accumulated dirt. Very old specimens of Black Currants, which contain a lot of old wood, must be attended to at once. The old branches should be cut out, severing them at the base; then light and air will be admitted to the younger shoots, which will become stronger and more prolific in future years. It is also advisable to put on a mixture of mould and rotted manure to a depth of 3 inches round each bush. Peach and Nectarine trees trained on walls must be protected by placing fish-netting over them to prevent the birds eating the fruits. Wasps also will now be getting troublesome, and every effort must be made to trap them. Do not remove any badly eaten fruits at once, as the wasps attack them further and so leave the sound ones severely alone; but directly the wasp-nets are got ready place them in position and remove the eaten fruits, as they would attract the wasps; the nests of the latter must be destroyed.

Greenhouse and Frames.—Decorative Pelargoniums which have been cut hard back and repotted in smaller pots must not be allowed to get very much potbound before the plants are shifted into larger pots. Fibrous loam two parts, leaf-soil one part, and rotted manure one part form a suitable compost. Sufficient coarse sand must be put in to render the mixture porous when pressed down moderately firm. Every plant should have short-jointed shoots, thick leathery leaves and be quite free from insect pests. To ensure such, place the plants in the greenhouse on a shelf close to the glass, or in a similar position in a frame, and admit air freely. Feeding must not be done until the pots are well filled with roots after the final potting.

THE SUMMER PRUNING OF RED CURRANTS AND GOOSEBERRIES.

A GREAT deal of ignorance prevails regarding the summer pruning of Currants and Gooseberries, yet, in the estimation of many of the best qualified experts, it is thought to be far more important than winter pruning. What is the object of the summer pruning of these two subjects? The careful and thoughtful summer pruning has the effect of modifying the growth and is, undoubtedly, conducive to the formation of fruit-buds, from which we are to obtain so much in the succeeding season. Beginners should, therefore, take advantage of the present period for pruning their Currants and Gooseberries.

In this article and the illustrations it is impossible to clearly define all the points that require elucidation, but every beginner will quite appreciate the need for the removal of all sucker-like growths from the base of the bushes. The bushes should have a clear, individual stem at their base. The suckers have the effect of choking up the centre of the bush, by which means light and air are excluded. Not only should the basal growths be removed, but also all superfluous shoots of the superstructure. It is known to almost every grower, however limited his knowledge of fruit culture may be, that weak and attenuated growths are always cut out in the winter pruning. We should, however, anticipate this work by removing all such undesirable shoots in the summer season, thus concentrating all the energies of the roots on the proper development of the growths that are retained.

Summer pruning may be done at any time between the middle of June and the latter part of July. Owing to the moist weather of the present season, this work may be done with better effect at the latter time than would be the case in a normal season. The shoots may often be pruned by simply shortening the growths by breaking or pinching out the brittle shoots to the required length; but I prefer a sharp knife

2.—THE SAME SHOOT AFTER SUMMER PRUNING HAS BEEN DONE.

for this work, as the cut is made quite clean and neat and no strain is put upon that portion of the growth that is retained.

Opinions differ as to the length of growth that should be pruned. Some growers recommend just pinching out the points of the shoots, but this is hardly sufficient; others, again, advocate shortening the gross leading shoots half their length, so that sun and air may penetrate the centre of the bush to ripen the fruit and

3.—A TYPICAL BRANCH OF A RED OR WHITE CURRANT BUSH IN GOOD CONDITION FOR SUMMER PRUNING.

strengthen the buds for next year. There are others who speak very strongly of shortening back the shoots to some four or six leaves, and give convincing proofs of the advantage of their system. A good rule to follow is to cut out weak and useless growths and to shorten the stronger ones that are retained to about 6 inches. In Fig. 1 will be seen an ordinary branch of a Gooseberry bush showing three or four fairly strong shoots. Not one of them may be regarded as weak in any degree, but each one is fraught with great possibilities for another season. I have shown in Fig. 2 how this same branch should be dealt with. Observe how the shoots have been shortened back to about 6 inches or 8 inches and that each shoot has the same number of leaves retained, which means that there should be the same number of plump buds to develop fine fruits another season.

In the case of both Red and White Currants the treatment is much the same as that recommended for Gooseberries. As a rule, however, there is a smaller number of shoots on each branch. In Fig. 3 a typical shoot of a Red or White Currant bush is given. Note that there are three fairly good shoots, each of which is capable of serving a useful purpose in the succeeding season if shortened as shown in Fig. 4. Light and air are two most important factors in the successful culture of most plants, and in the case of Gooseberries and Red and White Currants they are most essential factors. D. B. C.

LAUREL HEDGES IN SMALL GARDENS.

IT is astonishing the number of people who plant these as a fence. This is more noticeable in some districts than in others. I consider Laurels among the worst shrubs for the purpose in a general way. During my long experience I have only seen a very few instances where they have proved satisfactory. There are a few soils and situations where I would not hesitate to plant them, but they are quite the exception.

Here (Camberley), where the soil is very light, sandy and poor, they have been planted in the majority of places, and as the neighbourhood is largely composed of small places, the Laurel is to be seen on every hand. This arises from the houses being built by the speculative builder, who, when enclosing the ground, uses the cheapest thing to make a fence, and, to obtain the greatest height, at once makes a bank and plants the Laurels on this, often with no other preparation beyond raising the bank. For the first few years all goes well, the bushes making vigorous growth. When they have attained the requisite height and size, then cutting back is resorted to.

In the course of a few years they resent this treatment, which is shown by the colour of the foliage. This is followed by branches dying, and often ends by the shrub dying right down to the ground. In the road where I reside there are half-a-dozen in this condition and quite past recovery. I have observed, however, that where they are planted on the level ground which has been deeply worked they last many years longer.

Recently a lady showed me one in the condition described above, seeking help to make it recover. It was planted on one of these poor banks, and acted as a screen from the road to the garden and windows. In front of this was a border for hardy plants, and to keep back the roots a sharp spade was thrust down as close as possible to the bank, removing every root. This had an effect which is evident to all cultivators. So tidy was this place kept that all dead leaves were removed, and this had helped to bring them into this worn-out state. In such instances the best way is to reduce the tops, retaining all the most healthy branches, fork up the surface, and then put on a good dressing of manure. This will engender a top root-action, which will in turn promote young growth. To keep them going in such soil they need a dressing of manure each year when they show signs of exhaustion.

Personally, I should never plant Laurels, as there are so many better things. Nothing surpasses Holly in this soil. Beech makes a good fence, and several other things equally good could be named. J. CROOK.

THE TOWN GARDEN.

INSECT PESTS.—Owing to the cold winds, very low temperature generally and lack of sunshine experienced at the end of June, the growth of plants and the production of flowers have been slow, and the ripening of the wood, suitable for making cuttings, will be delayed in consequence. Insect pests have flourished amazingly, and the weather, which has been so adverse for plants in the garden, seems to have been ideal for the insects. Sweet Peas, Roses, and many other kinds of plants have been continually infested with green fly; the Cabbage butterfly has been strongly in evidence, and so I am afraid there will be hosts of caterpillars to slay in the near future. Town gardens are not exempt from these butterflies; they appear to be as plentiful there as in the country districts. The cuckoo-spit (Tettigonia spumaria), sometimes called the froth-hopper on account of the froth-like substance in which the insect is hidden, has infested nearly every kind of plant. I never saw so much about before. The stems and leaves of plants on which it is fixed quickly become deformed, and no wonder either, as the insects extract the sap from them wholesale. It is useless syringing the insects off with clear water, as if the branches appear to be thoroughly cleansed at night by this means, they are covered again the next morning with the froth and the insects. Quassia extract may be used; but I am sure the best policy is to kill the pests one by one. It may take some considerable time to do this, and it is a very disagreeable work, but very effectual. On no account must shoots which have been infested be put in as cuttings, as healthy growth would not result.

ROSES.—Nearly all the crown buds of the Teas, Hybrid Teas and Hybrid Perpetuals have now fully developed; but there are the smaller buds on many main shoots and those on side branches that must be carefully watched and guarded from the attack of the caterpillar. Although these later buds may not possess as many petals as the earlier ones, they develop into exceedingly lovely blooms with full, cupped centres, very rich in colour.

LAWNS AND GRASS EDGINGS.—The lawns are not as brown as they were at this time last year; but where the soil is of a sandy nature, it will be advisable to water in order to prevent the roots of the grass suffering in August if a long spell of dry, hot weather comes then. I know that some persons say the watering of lawns is useless as regards making the grass grow; but if thorough soakings be given the grass will benefit considerably. I need only point out the effect water has on the grass immediately around flower-beds, where it gets the benefit of odd sprinklings when the occupants of the beds are watered. The grass grows more strongly there, and so it is advisable to pass the mowing-machine twice over that part to once over the remainder of the lawn; and, furthermore, to use the edging-shears frequently, as a ragged edging always has a bad appearance, and a neat one makes the occupants of the flower-beds look still more charming.

LAYERING CARNATIONS.—A special compost must be made up for layering the side growths in. If it is quite impossible to obtain the best compost, the cultivator can probably get some coarse sand to mix with the ordinary border soil in the garden. It is the gritty nature of the soil, coupled with the requisite amount of moisture, that induces quick root-action. The best compost is made up as follows: Fibrous loam, sifted, two parts; leaf-soil, one part; sand, one part. The side shoots, those that have not borne flowers, must be selected for layering. Carefully remove a few of the leaves from the bottom portion of the stem, and then, in a slanting direction, nearly halfway, cut through the stem at that point with a sharp knife. Place the prepared compost under the layer and firmly peg down the cut portion in it. All that is necessary to do afterwards is to keep the compost in a moist state, when the layers will emit roots and, in due time, be ready for severing from the parent plant. AVON.

4. THE SAME BRANCH AFTER THE SHOOTS HAVE BEEN PRUNED.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

VASES.—Attend to the staking and tying out of the different plants needing it before they get damaged by the wind. Remove all decaying leaves and blooms to give a neat appearance, and do not fail to supply ample moisture to the roots should the weather prove dry and hot.

Pinks and Carnations.—Pipings of the former and layering of the latter must not be overlooked if well-rooted and strong plants are expected by the end of the season. All plants requiring supports must be attended to early, otherwise much damage may be done by heavy rain and wind.

Anemones.—These may be raised from seed at this season of the year, and with care will make very serviceable flowering plants for next year. Obtain the seed from a reliable source, and sow either in the open or in shallow boxes well drained and filled with a suitable compost. Beds of separate colours have a pleasing effect. The soil must be rich and well drained.

Brompton Stocks.—In raising a batch of plants sow the seed in pans at once, using a sweet, sandy soil. See that the colours are kept separate, and thus avoid a deal of trouble and disappointment at the flowering period.

HARDY FRUITS.

Summer Pruning will now need attention, but do not shorten the shoots too severely at this season. Plums we train fan shape, and at intervals all over the trees a few new growths are retained, and these usually produce the best and most fruits. Train the leaders of all young trees straight from the base and aim to maintain an even, well-balanced head. If the fruits have set too thickly, remove a portion early and others when large enough for tarts. Thin the clusters of Pears if fine fruits are wanted, also Apples.

Grafted Trees.—Attend to the young grafts which were inserted in April and make them secure against wind, otherwise they may get blown out. In the case of wall trees, where the grafts may have failed, train in a young shoot and insert a bud. All Pear trees growing on shallow soils, and especially if worked on the dwarfing stock, will require feeding well. Heavy mulching with well-decayed manure, and this followed with a copious supply of water, will afford great assistance to the present crop and growth for next season.

VEGETABLES.

Cabbages for Spring.—About the 25th of the present month will be found a very suitable time to make a sowing of Cabbage seed for the supply next spring, and another sowing should be made a fortnight later. Sow the seed on a rather firm soil which has been made moderately smooth. There are numerous varieties in commerce which may have good qualities to recommend them; but I have no fault to find with a good stock of Ellam's Dwarf Early, Early Offenham, Cutbush's Dwarf and Mein's No. 1. These I have grown for a number of years, and with which I am well pleased. Sow good breadths of Turnips, Endive and Lettuce to meet the demand. Keep the hoe going among all growing crops and stake up late Peas. There is still time to plant late Broccoli, and to enable them to withstand the rigour of winter plant on very firm land. I have seen excellent results from plants put out on Strawberry quarters after the latter have been grubbed up, the holes being made with the aid of a crowbar.

H. MARKHAM.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

FLOWER GARDEN.

BEDDING PLANTS.—Give timely support to all plants likely to be injured by wind, and all trailing subjects are best looked over every week and the growing shoots arranged according to the space necessary for them to fill, using wooden pegs to keep these in place. If some are inclined to grow more strongly than others, sufficient thinning to induce uniformity in the lines or masses will prove beneficial, and give a finer effect than otherwise.

Window-boxes, owing to the position they usually occupy, require close attention being paid to watering. The plants will now have obtained a good hold of the soil, and if growth is not luxuriant liquid manure may profitably be given once a week. Very similar treatment applies to vases which, if occupying a breezy position, may require any plants of pendulous habit being lightly secured by wire or twine.

GREENHOUSE.

Winter-flowering Plants.—Primula and Cineraria seed for producing plants for spring-flowering may still be sown, while the forwardest batches should be potted on as required, using a light open compost of loam, leaf-mould and sand, afterwards placing the plants under cover of a frame and keep close with slight shade for a few days. Primula obconica is often a considerable time in germinating. Should mossy growth form upon the surface, a sprinkle of silver sand will arrest this and render the tiny seedlings more easily visible.

Begonias of the Lorraine type will now be growing freely. Remove any blooms that appear, and apply water to the roots more freely. A position near the glass in a house or pit, where shade can be given as needed, is most suitable.

HARDY FRUITS.

Summer Pruning.—This may now be undertaken, trees against walls having first attention. Cordon and all young trees in other forms of training have probably already been done, with the result that many entirely superfluous shoots have since started, which, in turn, should be reduced in length or many of the weaker removed altogether. Established trees may have all foreright shoots reduced in length to four leaves, and, as in the case of younger trees, any others that are clearly seen to be useless may be broken clean away, thus allowing sun and air free access to those that remain and the fruit. Topmost growths necessary for the extension of the branches may then be closely laid in, and if insects of any kind are in evidence a thorough washing with strong soap and water, or any approved insecticide, should be given, applying this to the under-sides of the leaves.

Apples and Pears, in bush or pyramid form, require most of the side shoots, and all others that show a tendency of growth towards the centre, to be reduced to near their bases, and to have the leaders treated in a very similar manner according to size and form best applicable to the case. Pyramid trees of all species are inclined to grow too freely about the upper parts, to the detriment of those below, hence severe repression of topmost growths is necessary. In all cases the higher parts of the trees should first be operated upon, leaving those below for a week or ten days later, thus tending towards the equalisation of the flow of sap to all parts.

Peaches and Nectarines may now have any surplus shoots removed, and those retained secured close to the wall or branches, for the purpose of their better maturation and to expose the fruit more fully to the sun.

Figs may be very similarly treated; but as with these the fruit is most freely produced upon the short spur growths, a good number of the most promising should be left.

JAMES DAY.
(Gardener to the Earl of Galloway.)
Galloway House, Garlieston, Wigtownshire.

THE EDITOR'S TABLE.

MORE FLOWERS FROM SCOTLAND.

Dr. McWatt of Morelands, Duns, N.B., sends us still another lot of interesting flowers from his cottage garden. Among others we noticed the following: Eurybia stellulata, Genista tinctoria, Anchusa italica Dropmore variety, Oxalis enneaphylla, Aristolochia Sipho, Chrysanthemum arcticum, Alsine laricifolia, Dianthus deltoides, D. alpestre, D. cruentus, Brodiæa laxa, Armeria plantaginea splendens, Libertia formosa, Leontopodium carpaticum, Linnea borealis, Iris dalmatica splendens, Codonopis ovata, seven varieties of Heaths and Gaura Lindheimeri.

FLOWERS FROM IRELAND.

Sir John Olphert of Ballyconnell House, Falgaragh, County Donegal, sends us some very interesting flowers indeed, which we are pleased to receive. Sir John writes: "I send a few seedling blooms of double Delphinium raised here, and the old double blue Siberian Larkspur, which is very rare; pink Buddleia Colvillei with large blooms, Baptisia australis and Dictamnus Fraxinella. The rains have spoiled a lot of things I should like to send specimens of."

LONG-SPURRED AQUILEGIAS FROM ROXBURGHSHIRE.

Mrs. Scott Elliot of Teviot Lodge, Hawick, Roxburghshire, sends us some very beautiful examples of the long-spurred Aquilegias or Columbines. These are all of exceedingly good quality, and embrace all the best colours that have yet been produced in these charming flowers. Mrs. Scott Elliot, we understand, has devoted considerable time to the raising of this splendid strain, and certainly her labours have been rewarded in a most lavish way. The scientific committee of the Royal Horticultural Society has also granted her a certificate for her work among these flowers.

PÆONIES FROM LANGPORT.

Messrs. Kelway and Son of Langport, Somerset, send us blooms of their famous and beautiful Pæonies. The fragrance and beauty of these flowers is still not known nearly so much as it should be, and as the plants are quite hardy they ought to find a place in every garden. A few that we noticed as being specially good are Kelway's Queen, a full double creamy white; Sir J. T. Lipton, a large double crimson; Viscount Cross, a rich crimson single with beautiful yellow stamens; Hilda Wild, double, silvery pink; Ard Patrick, large double of old rose colour; and Helena, a pure white double.

LEGAL POINT.

Master and servant: Notice (*W. G.*). — There does not seem any direct authority on the point, but it is generally considered that a notice of dismissal could be given on Sunday, At common law a sale of goods on Sunday is valid, but this is now modified by the Lord's Day Act; a notice to quit premises can be served on Sunday. The observance of Sunday as a *dies non* seems chiefly to depend on Statute, and is subject to exceptions and exceptions to such exceptions. A distress for rent cannot be levied nor a writ served in a civil action on that day, but a warrant for an indictable crime can issue and be served, although as regards offences which can be disposed of summarily before magistrates it is otherwise. If the last day for doing an act in civil process falls on Sunday, it can be done the next day; and if the time limited for doing an act is less than six days, Sunday does not count if it falls in the interval. We should not like to say, therefore, that a notice given to a gardener on Sunday is invalid, although inconveniences

must arise as to the precise time the services terminate. When a servant is entitled to enjoy a lodge or cottage, rent free, under the terms of his employment, he is not a tenant in the strict sense of the term, and his right to enjoy the premises expires with his office as servant.—BARRISTER.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Plants for rockery (*G. H. Rippin*).—The following should be of service to you: Androsace lanuginosa, Campanula G. F. Wilson, C. garganica, Vittadenia triloba, Sedum pulchellum, S. spurium coccineum, Silene maritima fl.-pl., Zauschneria californica, Corydalis lutea, Polygonum Brunonis and several species of Dianthus; of carpeting subjects, Pratia angulata, Mazus Pumilio, Sibthorpia europæa, Campanula Pulla, with Anemone robinsoniana for spring. Two good Heaths for your purpose would be Erica carnea and E. cinerea alba. If you have room enough, these would be better if freely grouped alone, as not for long will any of the small-growing carpeting plants succeed in their company.

Aster plants dying (*Mrs. C. Burtenshaw*).—The Aster is attacked by a fungus, the life-history of which has not been fully worked out, but which attacks the plant from the soil, entering it at or near the ground level and growing into the tube up which the water flows to the leaves. The water supply is thus cut off, and the plant dies. There is no cure when once the plant is attacked; it should be dug up and burned. Since the disease gains entrance from the soil, Asters should not be planted in soil where the disease has occurred for at least two or three years.

TREES AND SHRUBS.

How to prune Clematis montana (*Moraig*).—Your Clematis has had too much pruning, and it will never flower if the branches are cut back as you say in July and October. By doing this the flowering wood is cut away each year. It is a mistake to over-prune the plant, but, of course, a certain amount must be done to keep it within bounds. The proper period to prune is directly the flowers fade, say, very early in June; then, do no more until the following June. As your plant has been heavily pruned in the past, do not prune it at all this year, simply leave it alone, and you will probably find that it will blossom well next May. Many species of Clematis require entirely different treatment to ordinary garden varieties, and if they are heavily pruned they never blossom satisfactorily.

Name and treatment of a shrub (*Colonel P. D. Jeffreys*).—The shrub you send is Kalmia latifolia, the Calico Bush of North America. It is a peat-loving shrub and grows satisfactorily under similar conditions to Rhododendrons. Although it attains its maximum dimensions in peaty soil, it succeeds well in loam, providing there is little or no lime in the soil. It is perfectly hardy and may be obtained from all the principal nurserymen in the country. It rejoices in moist but well-drained soil; anything approaching sourness is, however, fatal. Under the most satisfactory conditions it attains a height of 8 feet or 10 feet with a similar width, but more often it is less than a third that size. Even under the most satisfactory conditions, however, growth is slow.

Planting a Privet hedge (*Trefaldwyn*).—You could transplant your Privet hedge into a fresh position, providing you do the work early in October or late in March. Dig a trench along each side of the hedge about 1 foot from it; then fork the soil away from the roots and gradually work the plants out. Be careful to place the plants in the same order when replanting, keeping the outsides to the outside places again. After planting out into shape, reduce in height by 6 inches or 9 inches to counterbalance the effect of root injury, and keep well watered if the weather is dry. While the planting is in progress be careful to work the soil well in among the roots and ram the plants firmly in. A mulch of well-rotted manure may be applied next spring to prevent rapid evaporation of moisture in dry weather and also to act as a stimulant.

ROSE GARDEN.

Rose Marie van Houtte plants dying (*W. G. T.*).—The plant sent had evidently had the bark eaten away quite close to the stock upon which it was budded. This probably happened in the nursery from whence you obtained the plants, and its ill-effects would not be apparent until the spring, when the sap began to rise. When planting in future you should take the precaution to dress the soil with some insect destroyer such as Kilogrub, as possibly there may be some pest in your soil that has done the mischief.

Roses in pots to flower in winter (*Mrs. F. L. H.*).—To flower Roses successfully under glass the plants must be well established in their pots at least six months prior to forcing them; so that if you have any plants in pots they should be repotted at once if required. Should you not possess any plants, you could either purchase small ones now and repot them and grow them on in your greenhouse during the summer, or purchase established plants in October. A good plan to adopt in order to obtain Roses before Christmas is to grow some plants in pots in the open garden during summer, and as quickly as flower-buds are seen pinch them off. Keep them thus deprived of all bloom until September. The growths after this time are allowed to develop their buds. If the plants are removed to a greenhouse of very moderate temperature, the buds will unfold during the months of November and December. If you desire to obtain some plants for forcing at the least expense, you could pot up budded or own-root plants grown outdoors. The best time to do this is in October. Keep them outdoors until early spring, when some may be brought into the greenhouse and others grown on outside for another year. The Dorothy Perkins should be potted up in October, presuming they are now in the open garden. They would then, if brought into the greenhouse in February and very sparingly pruned, give you some nice trusses of bloom in May. They should not receive strong heat; but they would appreciate some bottom-heat, such as is obtained from a bed of leaves. Seven-inch or 8-inch pots would probably be required if the plants are of a nice size, as they should be at their age.

Rose tree blighted (*Knock Glass*).—The plant is badly infested with green fly or aphis, and the sticky gum-like appearance is known as honey dew, and is caused by the aphis. You should well wash the foliage in a solution of soft soapy water. Take half a bar of Lifebuoy Soap and dissolve it in three gallons of water; then well wash the leaves and buds by immersing them or by the aid of a long-haired brush. We think the variety is Paul Ricaut, one of the old Hybrid Chinese Roses.

Insects upon a bush of Rose de Meaux (*Dowager Lady P.*).—The damage is evidently caused by a little insect known as thrip. On some of the foliage there was also a trace of red spider. We advise you to give the plant a good syringing twice a week with Tobacco wash made as follows: Tobacco, ½lb.; soft soap, 1lb.; soft water, twelve gallons. Steep the Tobacco for a day or two; then allow it to simmer over a fire for an hour. Pour off the liquid, well press the leaves and proceed as before. Add the two extracts to the dissolved soft soap and then apply with a syringe, especially to the under surface of the leaves. A few growths might be cut away, as this Rose usually grows into a very dense bush, which makes a convenient harbour for insect pests.

MISCELLANEOUS.

Name of fruit.—*E. B.*—The variety is Keepsake.

Names of plants —*Drayton.*—1, Caroline Testout; 2, Killarney; 3, Mrs. J. Laing; 4, Captain Christy; 5, Prefet Limbourg; 6, Prince C. de Rohan; 7, Sultan of Zanzibar; 8, Papa Gontier; 9, Dr. Andry; 10, Souvenir de la Malmaison.——*C. Frost.*—L'Ideale.——*H. Ridout.*—1, Margaret Dickson; 2, Mme. Isaac Pereire; 3, Captain Christy The other plant was too shrivelled to identify.——*D. McO.*—It is not uncommon for coloured varieties like this to be found among the Lobelia, as it is a most variable plant, and there are many forms of different shades of colour. The colour of the one sent is too dull to please many people.——*H. C.*—1, Erigeron speciosus; 2, Chrysanthemum maximum.——*Z. Y. X.*—1, Spiræa canescens; 2, Rosa polyantha; 3, Rubus laciniatus; 4, Spartium junceum; 5 and 6, forms of Centranthus ruber; 7, Campanula persicifolia alba; 8, Geranium sanguineum; 9, Veronica Teucrium dubia; 10, Campanula glomerata; 11, C. persicifolia; 12, C. latifolia macrantha; 13, Galega officinalis; 14, Alyssum maritimum.——*A. Forlong.*—Light one, L. croceum; dark one, probably L. dauricum.——*G. J. Ips.*—1, Panax Victoriæ; 2, Fagus sylvatica heterophylla; 3, send in flower; 4, Kerria japonica; 5, Polygonum cuspidatum. ——*F. W. B.*—Pandanus species; 2, Melissa officinalis variegata; 3, Nepeta Glechoma variegata; 4, possibly Ficus repens; 5, Swainsonia galegifolia albiflora; 6, send in flower; 7, Semele androgyna; 8, Calathia sanderiana; 9, Dracæna fragrans Victoriæ; 10, Maranta bicolor massangeana.——*James Prescott.*—1, Populus balsamifera; 2, Achillea Millefolium rosea; 3, Buphthalmum salicifolium; 4, Euphorbia amygdaloides.——*W. R. P.*—1, Spiræa arguta; 2, Veronica incana; 3, Campanula portenschlagiana; 4, Convolvulus althæoides; 5, Acæna Sanguisorbæ; 6, Raphiolepis japonica; 7, Ægle sepiaria; 8, Lamium maculatum; 9, Arenaria montana; 10, send in flower; 11, Saxifraga Aizoon variety; 12, S Wallacei; 13, S. trifurcata.——*R. H. Drade.*—Deutzia crenata florepleno.——*J. Rogers.*—Pisum sativum umbellatum (Crown Pea).——*Cowden.*—1, Epilobium montanum; 2, Leontodon hirtus; 3, Hieracium Pilosella; 4, Potentilla reptans; 5, Lapsana communis; 6, Valeriana officinalis; 7, Galium Mollugo; 8, Geranium dissectum; 9, Circæa lutetiana; 10, Teucrium Scorodonia. —— *Ash Leaves.* — Leycesteria formosa. —— *J. A. Porch.* — Phlomis fruticosa; Dianthus Napoleon III. —— *Miss England.* — Kalmia latifolia.——*H. Creese.*—Small flowers of Rose Ulrich Brunner. —— *John F. B. Sharpe.* — Muscari comosum monstrosum.

SOCIETIES.

BATH ROSE, BEGONIA AND STRAWBERRY SHOW.

THIS popular West of England show was held in the Sydney Gardens, Bath, on Wednesday and Thursday, July 7 and 8. For the most part Roses were splendid in form, and the absence of scorching sun of late gave them better colour. Begonias made a good show and Strawberries looked well, but were not very highly coloured.

Roses.—Four competitors staged for the first class, *i.e.*, seventy-two distinct varieties, single blooms. The premier award went to Messrs. Dickson and Son, in whose exhibit was Comte Raimbaud, the Rose selected for the National Rose Society's silver medal offered for the best Hybrid Perpetual in the nurserymen's section. Mr. John Mattock, Oxford, and Messrs. Cooling and Sons, Bath, were second and third respectively. The best Tea in the nurserymen's section was Golden Gate, shown by Mr. George Prince of Longworth. Messrs. Dickson and Son also carried off the first prize in the class for thirty-six distinct varieties, three blooms of each; A. H. Gray, the new pale primrose, was shown at its best in this class. With Lady Ellen Vincent the same competitors won first prize in the class for any new Rose. For the most decorative arrangement of Roses, Messrs. A. A. Waters and Sons, Kensington Nurseries, Bath, came out on top with a fine lot of flowers, closely followed by Messrs. Cooling and Sons, Bath. In the amateur classes Mr. Conway Jones gained seven firsts, including the silver cup offered for twenty-four single blooms.

Tuberous Begonias.—Messrs. Blackmore and Langdon, Bath, brought a grand lot of Begonias, which won them first prize in the class for a collection of Begonias arranged for effect. Their best specimens were Lord Kitchener, Mrs. W. L. Anslie, Beatrice Mabbett, White Swan and a large number of beautiful frilled Begonias. Mr. J. Waters carried off the first prizes in all the four plant classes. The quality and clearness of colour in all his blooms were excellent, and the foliage was also a good colour. Flowers of good substance were shown by Mr. A. C. Palmer, who secured firsts in the two classes for thirty-six double blooms and twelve double blooms of Begonias.

Table Decorations.—As is usual at this show, the table decorations formed a most attractive feature, and the competition was keen. For the most tastefully arranged floral decoration for a dinner-table 6 feet by 4 feet, Mrs. E. Viner, Frome, was placed first. Mrs. J. T. Curtis, Chippenham, was second. In the class for Sweet Peas, Sir W. Howell-Davies, Bristol, was first, salmon yellow and lavender being the colours used. Mr. E. Viner, Frome, was second; in his table he employed crimson and salmon varieties, which were most effective and telling.

Carnations.—Mr. Charles Wall, Melrose Nurseries, Bath, secured the first prize for twenty-four Carnations or Picotees. The blooms were very clean and of large size. Messrs. Blackmore and Langdon, Bath, were second, their

exhibit being fine, although it lacked the quality of the first-prize lot. In the class for a collection of Carnations, highest honours went to Messrs. Blackmore and Langdon, who had some magnificent blooms in their very large collection.

Sweet Peas.—For twelve bunches of Sweet Peas, Mr. G. Humphries, Kingston Langley, Chippenham, secured the first prize. His exhibit was perfect, Princess Victoria, Mrs. C. Foster, Tennant Spencer and a new seedling were his best bunches. The Earl of Devon was second, and his bunches of Helen Lewis and Aurora Spencer were very fine. Mr. E. Viner, Frome, secured the first for six bunches (prizes offered by Messrs. Webb and Son, Wordsley), Rosie Adams and George Herbert being his best.

Plants.—The feature of the show was the class for a group of miscellaneous plants in or out of bloom, arranged and banked for effect on a space not exceeding 200 feet. Major H. Doherty, Bath, secured a well-deserved first for a magnificent bank. The exhibit included among other plants fine specimens of Orchids. The second-prize group lacked both quantity and quality, but contained some splendid Crotons and Caladiums. The exhibit was put up by Mr. W. Wailes.

Strawberries —Many fine Strawberries were shown. In the class for six dishes, thirty berries on each, Mr. E. J. Ricketts, Batheaston, gained the first prize; his best dishes were Royal Sovereign and Sir Joseph Paxton. For the heaviest berries Mr. Thomas Every came in first; his dish was that of Royal Sovereign. Mr. E. J. Ricketts also won firsts for three dishes, distinct varieties, and one dish. any variety.

Vegetables.—For a collection of vegetables not exceeding ten varieties, Mr. F. Waite was first. His exhibit was very neatly displayed. Mr. A. G. Andrews was placed first for a brace of Cucumbers; and for a dish of twelve Tomatoes Mr. G. Horsell was an easy first, his fruits being large and of clear colour. Sutton's special prizes for six distinct kinds of vegetables were awarded to the Right Hon. W. H. Long, M.P., and the Earl of Devon, who were first and second respectively, their products being extremely good. Messrs. Webb and Sons' prizes for a collection of vegetables, six distinct kinds, went to Captain Gilling, first, and Mr. T. Every, second; both exhibits were good.

Trade Exhibits.—Messrs. Sutton and Sons, Reading, had a large and most attractive exhibit of flowers, vegetables and fruit, probably the best trade exhibit ever seen at this show. Conspicuous among the flowers were their Sweet Pea Sutton's Queen, which was very fine; new pink Lupin, Celosias in good form, as were also Nemesia compacta in a large range of colours. There were also over thirty varieties of Melons, prominent being Sutton's Triumph, one of which turned the scale at 12lb. Reading Giant Asparagus; a fine sample of Early Giant Pea; Tomatoes—the best were Golden Perfection out of nearly thirty varieties staged; Carrots, Lettuce and other vegetables of good strains were also included in their exhibit, which thoroughly maintained the firm's reputation as providers of high-class seeds for the produce of good flowers, vegetables, &c. Messrs. A. A. Waters and Sons, Kensington Nurseries, B th, had an attractive exhibit of Delphinium seedlings, which contained their new novelty Rev. E. Lacelles, a dark blue Delphinium with a white centre. Messrs. Stokes and Sons, Trowbridge, staged their new Delphinum Peace, which is a very attractive flower. Mr. John Milburn, Victoria Nurseries, Bath, had an excellent rock garden exhibit on 14 feet of staging.

WOLVERHAMPTON FLORAL FETE.

THIS excellent and enterprising society celebrated its twenty-first anniversary this year, and had, in consequence, prepared a really sumptuous feast for the occasion, which took place on July 13, 14 and 15. To mark this important period of its history, a silver vase value £50, or this amount in cash, was offered for the "most meritorious and effective display in the show," the coveted honour being secured by the well-known and go-ahead firm of Bakers, Wolverhampton, for a very remarkable rock and water garden exhibit, of which particulars are given elsewhere. Some idea of the work and the arrangement may be gathered from the fact that forty tons of sandstone alone were employed, the arrangement covering 100 feet by 20 feet. It was really an admirable piece of work.

In other respects the show was as good as it was extensive, the excellent prizes bringing forth the best competitors in the country. In Class 1, for a display of flowering and foliage plants, arranged for effect, £100 in prizes were offered, the first prize going to Messrs. James Cypher and Sons for a very fine arrangement. Unfortunately, on the opening day in the early afternoon the show was visited by a tremendous downpour of rain, which sadly marred the beauty of the table arrangements and choice cut flowers.

The arrangements throughout were excellent, and our thanks are due to the officials for much kindness and many courtesies.

PLANTS AND GROUPS.

For a display of foliage and flowering plants, arranged for effect, Messrs. James Cypher and Sons, Cheltenham, were first with a magnificent group. The general scheme was a ground of Crotons and Cattleyas, Miltonias and Alocasias, Begonias and Ferns. Taller Crotons, Palms, Carnations, Lilies, Roses, Odontoglossums and other plants played their part in a most delightful whole. Here and there, dotted in the foreground with exquisite taste, were pots of Nertera depressa and Caladium Argyrites, and with arches of Roses and other flowers and tall graceful Palms a most sumptuous group was arranged. Second, Mr. W. A. Holmes, Chesterfield, who had finely-coloured Crotons, Roses, Cattleyas, Asparagus and the like, with Humea elegans, choice Palms and a great variety of flowering and foliage plants tastefully set out. Third, Mr. W. Vause, Leamington, who had a more closely arranged group, which was composed of Crotons, Roses, Lilies, Acers and other plants.

For a group of five foliage plants and Ferns, no flowering plants allowed, Mr. W. A. Holmes, Chesterfield, was first. He had arranged Crotons, Alocasias, Palms, Phryniums and Aralias with great skill, the group being of a light and yet very imposing character. Second, Messrs. J. Cypher and Sons, Cheltenham, whose bright and telling group lacked the Cypherian lightness and elegance to which we are accustomed. Third, Sir G. H. Kenrick, Edgbaston, Birmingham (gardener, Mr. J. V. MacDonald), who had a most excellent group.

For twenty plants in pots: First, Messrs. James Cypher and Sons, Cheltenham, who had excellent examples of Chironia ixifera, Clerodendron fallax and C. Balfouri, Ixoras, Crotons and Statices. Mr. W. Vause, Leamington, was second with a nice assortment of plants.

For a group of flowering plants of one kind only, Messrs. Blackmore and Langdon, Bath, were first with a sumptuous group of Begonias in white, crimson, picotee varieties and the like. The plants were superbly grown. Second, Hobbies, Limited, Dereham, with a superb lot of rambler and other Roses, in which the best of these things were staged in good taste. Third, Messrs. J. Cypher and Sons, Cheltenham, who had a delightful lot of half-specimen hard-wooded Heaths, plants all too rarely seen to-day.

For groups of plants, space not to exceed 250 square feet: First, J. A. Kenrick, Esq., Edgbaston (gardener, Mr. A. Cryer), who arranged Palms, Bamboos, Crotons, Lilies, Humea elegans, Hydrangeas and other plants in a series of circular groups, using a margin of Nertera depressa and other small plants in a very ingenious manner. Second, Mr. W. R. Manning, Dudley.

FRUIT AND VEGETABLES.

For a display of fruiting trees in pots on a space 20 feet by 9 feet: First, Messrs. Thomas Rivers and Sons, Sawbridgeworth—Apples, Peaches, Nectarines, large Oranges in tubs, Cherries, Plums, Figs, Grapes, Pears and three specimens of Oranges, twenty years old, in tubs were noteworthy. Two specimens of Apple Lady Sudeley were very fine. Second, The King's Acre Nurseries, Hereford, who had Peaches, Nectarines, Apricots, Cherries, Plums, Apples, Pears, Gooseberries, Currants, Grapes and Figs; a most effective collection.

For a collection of fruit, eight dishes, to include two varieties of Grapes, three bunches of each: First, Lord Savile, K.C V.O., Ollerton (gardener, Mr. J. Doe), who had three bunches each of Muscat of Alexandria and Madresfield Court Grapes, together with Figs, Nectarines, Peaches and an excellent Melon. Second, J. Drake, Esq., Market Rasen (gardener, Mr. Parker), with Figs, Lady Sudeley and Ribston Pippin Apples, Grapes and Melons.

For two bunches of black Grapes: First, Lord Savile, with excellent Black Hamburgh; second, J. Drake, Esq.

Two bunches of white Grapes: First, Lord Savile; second, J. Drake, Esq.

Four bunches of Grapes, two black and two white: First, Lord Savile, Ollerton, who had Black Hamburgh and Buckland Sweetwater; second, J. Drake, Esq. (gardener, Mr. W. Parker).

For a collection of six varieties of fruits (Pines excluded), the first prize went to Lord Savile, K.C.V.O., Ollerton (gardener, Mr. J. Doe), who had superb Figs, Melons, Peaches and black and white Grapes; second, Lord Bagot, Rugeley, with a similar, if smaller, lot of well-grown produce; third, J. Drake, Esq., Market Rasen.

For a collection of ten vegetables, distinct, the premier prize was taken by His Grace the Duke of Portland, K.G., Worksop (gardener, Mr. J. Gibson), with excellent examples of Ideal Potatoes, Eclipse Tomatoes, Magnum Bonum Cauliflowers, Centenary Peas (grand) and Delicacy Cucumbers, the produce being grown from Messrs. Sutton's seeds; second, the Marquess of Northampton, K.G. (gardener, Mr. A. Searle), who had a splendid lot grown from Messrs. Webb and Sons' seeds.

SWEET PEAS.

Eighteen varieties of Sweet Peas (open): First, Mr. T. Jones, Ruabon, whose excellent lot included Audrey Crier, Aurora Spencer, Etta Dyke, Princess Victoria, Mrs. A. Ireland, The King and Clara Curtis; second, Sir R. Baker, Bart. (gardener, Mr. A. E. Usher); third, Hobbies, Limited, Dereham.

For twelve varieties of Sweet Peas (prizes offered by Mr. Henry Eckford, Wem), Sir R. Baker, Bart., was a good first, his fine lot including Sir James Guinness, J. Ingman, Mrs. H. Sykes, Queen Alexandra and Asta Ohn; second, Mr. J. Haycock, Ruabon.

For twelve varieties of Sweet Peas (prizes offered by Messrs. Robert Sydenham, Limited, Birmingham), Sir R. Baker, Bart., Blandford (gardener, Mr. A. E. Usher), was again first, Paradise Carmine, St George, Nora Unwin and Audrey Crier being very fine; second, Mrs. Chappell, Warwick.

For six distinct varieties of Sweet Peas (prizes offered by Messrs. Bakers, Wolverhampton): First, Sir R. Baker, Bart., Blandford (gardener, Mr. A. E. Usher), whose vases of Audrey Crier, John Ingman, Helen Lewis, Elsie Herbert, Etta Dyke and Clara Curtis were all of the finest quality; second, Mr. T. Jones, Ruabon, whose Frank Dolby (blue), Mrs. Routzahn Spencer (pink and cream) and Countess Spencer were very fine.

For six bunches of Sweet Peas (prizes offered by Messrs. Webb, Stourbridge), Sir R. Baker, Bart., was again in the leading place with a capital lot.

For six varieties (prizes offered by Messrs. Robert Sydenham, Limited), Mr. J. Haycock, Ruabon, was first, Clara Curtis, Paradise and Etta Dyke being excellent.

ROSES.

For seventy-two varieties of Roses, single blooms, distinct, Messrs. Hugh Dickson and Sons, Belfast, were first with an admirable lot so far as the season permitted. Some of the more conspicuous varieties were Mme. Melanie Soupert, Mildred Grant, Captain Hayward, Mrs. Edward Mawley, Lady Helen Vincent, Mrs. W. J. Grant and Charles Grahame; second, Messrs. Frank Cant and Co., Colchester; third, Messrs. Harkness and Co., Hitchin.

For forty-eight Roses, distinct, Messrs. J. Townsend and Sons, Worcester, were first, with Messrs. Dickson and Sons, Belfast, and Messrs. F. Cant and Co. in the succeeding places.

Twelve bunches of decorative Roses, to be shown with foliage and buds as cut from the plants: First, Mr. J. Mattock, Oxford, who showed Mme. A. Chatenay, Mrs. Grant, Lady Battersea, Betty, Mme. P. Ducher, Killarney, Marie van Houtte and Liberty very finely. Second, Messrs. F. Cant and Co., Colchester, whose Queen Mab, Rosette de Legion d'Honneur, Lady Waterlow and Helene were excellent. Third, Mr. W. T. Mattock, Oxford.

Twelve Tea Roses, distinct: First, Mr. W. T. Mattock, Oxford, who had Muriel Grahame, Medea, Ernest Metz and Souvenir de Pierre Notting; second, Messrs. F. Cant and Co., Colchester, whose best were Mrs. Edward Mawley, Ethel Brownlow, Medea and White Maman Cochet; third, Mr. J. Mattock, Oxford.

For nine distinct Teas and Noisettes, Mr. W. T. Mattock, Oxford, was again first with Maman Cochet, White Maman Cochet and Mrs. Edward Mawley, all fine.

For a display of climbing Roses in pots: First, Hobbies, Limited, Dereham, with Delight, Hiawatha, Lady Gay, Minnehaha, Tausendschön and Paradise, single. A very beautiful lot.

In the class for a bowl of Roses, Mr. W. J. Garner, Altrincham, was first with a noble vase of Mme. Abel Chatenay; second, Mr. E. Hicks, Twyford, Berks, with Captain Hayward and Mme. A. Chatenay in mixture; third, Messrs. J. Townsend and Sons, Worcester.

The exhibit of a rock and water garden from Bakers, Wolverhampton, was a great success and, without doubt, the most sumptuous thing of its kind we have seen. Masses of rock backed by Pines and Bamboos and planted with Ferns and alpines were simply treasure-houses of beauty. Massive rocks naturally disposed and well planted were very charming. The water garden portion was a great feature, and with Irises, Spiræas, Trilliums, Darlingtonias, Sarracenias and Funkias a most entrancing picture was formed, which, by common consent, was the finest of its kind ever seen in London or the provinces. Silver vase and special gold medal.

The rockery exhibit from Messrs. Backhouse and Son, York, was one of the features of the show, a superb arrangement for which no praise is too great and for which a description would fail utterly to give any idea of its worth. A perfectly arranged rock garden and water in combination was planted in the most delightful fashion with choice alpines and shrubs. A great work of art indeed. Large gold medal.

HARDY FLOWERS.

For a collection of Delphiniums, space 6 feet by 5 feet, no duplicates: First, Messrs. Blackmore and Langdon, Bath, who had a superb lot of full-length spikes; second, Messrs. G. Gibson and Co., Bedale; third, J. A. Kenrick, Esq., Edgbaston.

For the best arrangement of hardy flowers, no duplicate or mixed bunches allowed: First, Messrs. G. Gibson and Co., Bedale, who had Gaillardia Nancy Gibson, Papaver Mrs. Perry, Delphinium Mrs. Peter Blair, Verbascum densiflora and Campanula persicifolia grandiflora among the best things; second, Messrs. Harkness and Sons, Bedale, with Irises, Delphiniums, Lupines, Heucheras, Gaillardias, &c.; third, Messrs. G. Bunyard and Co., Maidstone, with Iris Kæmpferi, early Gladioli, Campanulas, English Irises, Eremuri and other hardy flowers in variety. Messrs. Wallace and Co. also displayed good groups in this class, the competition being very keen.

For a bridal bouquet, Messrs. Perkins and Sons, Birmingham, who had arranged pink Carnations and Odontoglossums in a very light and elegant manner, were placed first, Mr. W. J. Garner, Altrincham, also with an arrangement of Carnations and Odontoglossums, taking the second place. There were a large number of exhibitors in this class.

NON-COMPETITIVE EXHIBITS.

Messrs. E. and H. Suckling, Wolverhampton, staged floral devices and flowers.

Mr. John E. Knight, Tettenhall Nurseries, Wolverhampton, had an Old English garden arranged with effect in the open and displayed near a background of shrubs, the rockwork and waterfall presenting a singularly picturesque aspect.

Messrs. Hewitt and Sons, Solihull, displayed an admirable lot of hardy herbaceous plants. Silver-gilt medal.

Messrs. Dickson, Limited, Chester, had a fine group of hardy flowers. Silver-gilt medal.

Messrs. Bakers displayed Roses and early Gladioli in great numbers, also a fine bank of herbaceous plants.

Messrs. Webb and Sons, Stourbridge, had a circular temple arranged with the choicest vegetables and flowering plants, Melons, Gloxinias, Cucumbers, Peas, Tomatoes, Potatoes, Sweet Peas, Celosias and a great host of other fruits and flowers in sumptuous array; a picture of beauty and utility. Gold medal.

Messrs. Lilley, Guernsey, staged an admirable lot of early Gladioli in many distinct and beautiful varieties. Silver-gilt medal.

Messrs. Clibrans, Altrincham, showed a fine group of Aralia sinensis alba marmorata (syn. Dimorphanthus). The group was very picturesque. Silver medal.

Messrs. Robert Sydenham, Limited, Birmingham, had a delightful lot of Sweet Peas charmingly arranged and in many choice colours.

Messrs. Cutbush and Son, Highgate, set up a nice group of Carnations, white Dorothy Perkins Rose, and many other showy and good plants. Silver medal.

Messrs. T. S. Ware, Limited, Feltham, arranged an excellent group of hardy cut flowers, Phloxes, Larkspurs and Campanulas, together with alpines. Silver-gilt medal.

Messrs. Jarman and Co., Chard, had their new Sweet Pea Mrs. Townsend, also Sweet Sultans, Roses, Zonal Pelargoniums and the like. Silver medal.

Messrs. T. B. Dobbs and Co., Seed Stores, Wolverhampton, had a rustic outdoor arrangement and a model garden. Silver medal.

Mr. John G. Knight, Dudley Street, Wolverhampton, had a particularly effective garden arrangement with trees, shrubs and rustic arches. Silver-gilt medal.

Messrs. B. Ladhams, Shirley, Southampton, had a fine group of Pinks, Gaillardias, Scabiosa caucasia grandiflora and Salvia turkestanica, a very showy plant with pinkish bracts. The perpetual Pink Elsie was very fine. Silver medal.

Mr. C. F. Waters, Balcombe, Sussex, staged a very fine lot of Perpetual Carnations in all the leading commercial kinds, the flowers being of exceptional size and quality. Silver-gilt medal.

Mr. C. H. Herbert, The Nurseries, Acock's Green, Birmingham, had a superb lot of his Perpetual Pink Progress.

Messrs. Gunn and Sons, Olton, near Birmingham, displayed a capital lot of herbaceous Phloxes, alpines and Tufted Pansies. Silver-gilt medal.

Messrs. Peed and Sons, West Norwood, S.E., had a very fine group of Caladiums handsomely coloured and arranged with telling effect. Gold medal.

For a superb gathering of Sweet Peas and Violas, admirably arranged, Messrs. Dobbie and Co., Rothesay, received a gold medal, their group attracting a great deal of attention.

The Hon. Vicary Gibbs, Aldenham House, Elstree (gardener, Mr. E. Beckett), displayed a collection of vegetables in his well-known masterly style, the exhibit containing something like eighty dishes, and for which a special gold medal was awarded.

NATIONAL ROSE SOCIETY'S PROVINCIAL EXHIBITION.

THIS exhibition was held in the beautiful grounds of Wordown Park, Luton, in connexion with the Luton and District Sweet Pea and Rose Society, on Wednesday, the 14th inst., when there was a remarkably good display of Roses, these being of much better quality than those shown at the society's Metropolitan exhibition. Sweet Peas were of moderate quality only, and competition for these was by no means keen, this, undoubtedly, being due to the cold, wet weather experienced previously. We wish to tender our thanks to Mr. E. Mawley, Mr. R. H. Marks and the committees for the assistance they so kindly rendered.

NURSERYMEN.

General Section.

The Jubilee Trophy and gold medal, for thirty-six blooms, distinct varieties, brought forth nine entries, the first prize being well won by Mr. Hugh Dickson of Belfast. The blooms here were all very large, of good form and very clean. Captain Hayward, J. B. Clark, Lyon Rose, Countess of Annesley, Mrs. Stewart Clark and William Shean were a few worthy of special mention. Messrs. A. Dickson and Sons, Newtownards, Ireland, were placed second, Lady Buham (a huge new Rose of delicate blush and cream hue), Nita Weldon, Lady Ashtown and Comte Raimbaud being four of the best. Third prize was awarded to Messrs. D. Prior and Son of Colchester, whose flowers were also good. Judging in this class was very difficult indeed.

The Crawley Cup, offered for seventy-two blooms, distinct, brought forth six competitors, first honours falling to Messrs. A. Dickson and Sons, Newtownards, Ireland, for a remarkably good lot of blooms. A few of the best were Hugh Dickson, Medea, Mildred Grant, A. K. Williams, Mrs. W. J. Grant, Bessie Brown and Mrs. Cornwallis-West. Second prize was awarded to Messrs. B. R. Cant and Sons, Colchester, whose flowers also were good, Hugh Dickson, Comtesse de Ludre, Mrs. W. J. Grant and Mrs. E. Mawley being a few that we selected as of more than ordinary merit. Messrs. Frank Cant and Co., Braiswick Rose Gardens, Colchester, were a good third, Lady Ashtown, William Shean and Pride of Waltham being three of their best.

In Class 3, for twenty-four distinct varieties, there blooms of each, there were five entries, first honours falling to Messrs. A. Dickson and Sons, Newtownards, for a very fine lot of flowers, K. A. Victoria, Ulrich Brunner, Duchess de Morny, Killarney and Mrs. W. J. Grant being very good indeed. Second and third honours went respectively to Messrs. B. R. Cant and Sons, Colchester, and Messrs. Frank Cant and Co., Braiswick, Colchester.

For thirty-six blooms, distinct, there were six competitors, the premier prize being appropriated by Messrs. G. and W. H. Burch, Peterborough, with a lovely lot of blooms in which dark-coloured Hybrid Perpetuals predominated. We specially noticed C. J. Grahame, Xavier Olibo, Victor Hugo, Etienne Levet, Her Majesty and Frau Karl Druschki as being of more than ordinary merit. Second honours went to Mr. W. Leggett, Colchester, Duke of Edinburgh and Mrs. Edward Mawley being well shown in this collection. Third prize was awarded to Messrs. J. Burrell and Co , Cambridge.

For sixteen distinct varieties, three blooms of each, competition was good, five competitors trying conclusions. Mr. G. Prince, Longworth, was a good first, most of his flowers being very clean; Mrs. W. J. Grant and Hugh Dickson were two of the best. Second and third prizes went respectively to Messrs. G. and W. H. Burch, Peterborough, and Messrs. J. Burrell and Co., Cambridge.

Tea and Noisette Section.

The first prize for eighteen blooms, distinct, was well won by Mr. George Prince, Longworth, Berks, with a very clean lot of blooms; Mrs. Edward Mawley, Mme. Jules Gravereaux and Comtesse de Nadaillac were the three best blooms. Second honours went to Mr. Henry Drew of Longworth, Mme. Jules Gravereaux also being shown here in splendid form. Third prize was awarded to Messrs. B. R. Cant and Sons, Colchester.

For twelve blooms, distinct, the first prize went to Messrs. J. Burrell and Co., Cambridge, for a clean dozen, Mme. Constant Soupert, Mrs. E. Mawley and White Maman Cochet being particularly noteworthy. Mr. John Mattock, Oxford, was second, Mme. Jules Gravereaux being good here. Mr. W. Leggett of Colchester was placed third.

OPEN TO NURSERYMEN AND AMATEURS.

General Section.

For twelve blooms of any white or yellow Rose competition was very good indeed, about a dozen entries being staged. Messrs. D. Prior and Son of Colchester won the premier prize in good style with really marvellous flowers of Frau Karl Druschki. Second honours fell to The King's Acre Nurseries, Limited, Hereford, for a good dozen of Kaiserin Augusta Victoria, and third prize was won by Mr. F. M. Bradley, Peterborough, with Frau Karl Druschki. An extra prize was awarded Mr. W. Leggett, Colchester, for Bessie Brown.

In a similar class for any light pink or rose-coloured Rose, the premier award went to The King's Acre Nurseries, Limited, Hereford, for a very beautiful dozen of Mrs. E. Mawley. A good box of Lady Ashtown won second prize for Messrs. D. Prior and Son of Colchester, and Messrs. S. Bide and Sons, Farnham, Surrey, were third with their Queen of Spain.

For a dozen blooms of any light or dark crimson Rose there were eight entries, first honours falling to Messrs. B. R. Cant and Sons, Colchester, for a wonderful set of A. K. Williams, the colour and shape being well-nigh perfect. Mr. F. M. Bradley, Peterborough, was second.

For nine blooms of Harry Kirk five exhibits were staged, the challenge cup going to Messrs. Frank Cant and Co., Braiswick, Colchester, for very clean blooms. Messrs. B. R. Cant and Sons and Messrs. Harkness and Co., Hitchin, followed in the order named.

Tea and Noisette Section.

For triplets of twelve distinct varieties there were three entries, first prize being appropriated by Mr. H. Drew, Longworth, Berks; Maman Cochet, Mrs. E. Mawley and White Maman Cochet were the three best. Second prize went to Mr. G. Prince, Longworth, his Maman Cochet and Mrs. E. Mawley being very good indeed. Third prize fell to Messrs. Frank Cant and Co., Braiswick, Colchester.

Section for Decorative Roses.

Four groups were staged in the class for eighteen distinct varieties, not less than three or more than seven trusses of each, first prize being awarded to Mr. J. Mattock, Oxford, for a very pretty and representative display. Billard et Barre, Gustave Regis and Lady Waterlow were well shown here. Messrs. Frank Cant and Co., Braiswick, Colchester, were a good second, Crimson Damask, Lady Battersea and Ecarlate being very attractive here. Third prize went to Messrs. G. Paul and Son, Cheshunt.

In a similar class for twelve varieties there were four entries, first prize again going to Mr. J. Mattock, Gottfried Keller and Bardou Job being very beautiful here. Mr. G. Prince was second and Messrs. Frank Cant and Co. third.

AMATEURS' CLASSES.

The Jubilee Trophy and gold medal, offered for twenty-four blooms, distinct, brought forth fourteen entries, the trophy being carried off by that veteran exhibitor, Mr. E. B. Lindsell of Hitchin. His blooms were excellent throughout, Frau Karl Druschki, Mrs. Theodore Roosevelt, Her Majesty, Duchess of Bedford and Mildred Grant calling for special mention. Mr. Alfred Tate, Downside, Leatherhead, was a close second, his flowers being very large and clean. Mrs. J. Bateman, Yvonne Vacherot, Mrs. E. Mawley and William Shean were good. Third prize was awarded to Franklin Dennison, Esq., Leamington.

In a similar class for thirty-six blooms there were no less than nine competitors, first prize being well won by the Rev. T. G. Henslow, Chippenham, with really good flowers. We specially noticed Caroline Testout, Victor Hugo, Hugh Dickson and Mildred Grant. Second and third prizes were won by Mr. E. B. Lindsell and Mr. A. Tate in the order named, each showing blooms of admirable quality.

Eight exhibitors entered the class for eight triplets, distinct, Mr. A. Tate winning first prize in good style. His best flowers were Dean Hole and Mrs. Theodore Roosevelt. Second prize went to Mrs. G. A. Hammond, Burgess Hill, Sussex, who also had Mrs. Roosevelt in good condition. Third prize was awarded to Mr. Conway Jones, Gloucester.

For nine blooms of any Rose except Tea or Noisette, Mr. Conway Jones was first with Dean Hole; Mr. R. Foley Hobbs, Worcester, was second with Her Majesty; and Mr. E. B. Lindsell third with Frau Karl Druschki.

Open to Growers of Less than 2,000 Plants.

Mr. W. Times of Hitchin was the champion in the class for eighteen blooms, distinct, his flowers being very clean and good. Mrs. Myles Kennedy, shown here, received the silver medal as being the best Hybrid Tea shown by an amateur. Mr. W. R. Hammond was second and Mr. G. Speight, Market Harborough, third.

For six triplets, distinct, there were only two entries, Mr. G. Speight being placed first, and the Rev. F. Page-Roberts, Strathfieldsaye Rectory, Berks, second.

Open to Growers of Less than 1,000 Plants.

In the class for twelve blooms, distinct, Mr. E. B. Lehmann, Crawley, Sussex, was first with excellent flowers, Mme. Jules Gravereaux and William Shean being the two best. Second and third prizes went respectively to Mr. C. F. H. Leslie, Hertingfordbury, Hertford, and Mr. W. Whittle, Leicester.

In a similar class for nine blooms, Mr. Courtenay Page, Enfield; Miss B. H. Langton, Hendon; and Mr. Herbert Whitman, East Finchley, were the prize-winners in the order named.

NEW ROSES.

The following new Roses each received a gold medal: Ethel Malcolm, a Hybrid Tea of great beauty, and undoubtedly the best novelty in the show. The flowers are large and of great depth, the colour being creamy white with peach shading in the centre. A first-class exhibition Rose and worthy of two gold medals. Mrs. Maynard Sinton, a Hybrid Tea possessing a very pronounced and delightful fragrance, the colour being white tinted flesh. Both were shown by Messrs. S. McGredy and Sons, Portadown, Ireland. Leslie Holland, a beautiful and rich crimson and scarlet Hybrid Tea of good form and substance and very sweet. Shown by Mr. Hugh Dickson, Belfast. Mrs. Hubert Taylor, a pure Tea with very pointed flowers, the colour being creamy white flushed pink. Duchess of Wellington, a beautiful orange yellow garden Rose, received a card of commendation. The two last were shown by Messrs. Alex. Dickson and Sons, Newtownards.

BEST BLOOMS IN THE SHOW.

Nurserymen.—Hybrid Tea—Mrs. Theodore Roosevelt, shown by Messrs. Hugh Dickson, Belfast. Hybrid Perpetual—Ben Cant, shown by Messrs. B. R. Cant and Sons, Colchester. Tea—Mrs. Edward Mawley, shown by Mr. George Prince, Longworth, Berks.

Amateurs.—Tea or Noisette—Mrs. Myles Kennedy, shown by Mr. W. Times, Hitchin. Hybrid Perpetual—Her Majesty, shown by R. Foley Hobbs, Esq., Worcester. Hybrid Tea—Mme. Melanie Soupert, shown by Mr. W. H. Calvert, Helen's Bay, County Down.

SWEET PEAS.

Open to Gentlemen's Gardeners and Amateurs.

There was only one entry in the class for twenty-four bunches, distinct, this being shown by R. C. Peake, Esq., Redbourn (gardener, Mr. G. Parstead), but this was awarded first prize. These were of moderate quality only.

In a similar class for twelve bunches there were four entries, first prize going to Mr. A. W. Ralph, Bedford, for a good lot of flowers. Elsie Herbert, Countess Spencer, Frank Dolby, Evelyn Hemus and Mrs. Hardcastle Sykes were the best sorts shown. Second honours went to Mr. I. B. Ellis, Sharp Crook, who also had flowers of good quality. Third prize was well won by Mr. A. G. Cresswell, gardener to the Earl of Lytton, whose flowers were very good indeed, Sutton's Queen and Countess Spencer being very highly coloured.

LOCAL CLASSES.

There were three entries in the class for twelve bunches, distinct, first prize being won by A. Collings Wells, Esq. (gardener, Mr. E. Gibbons). The flowers here were of good quality and possessed long, stout stems. Evelyn Hemus, Prince Olaf, The King and Clara Curtis were the four best. Second prize went to Mr. R. C. Peake, Redbourn, whose flowers were much smaller, Helen Lewis being the best. Mr. H. L. Sell, Luton, was placed third.

The silver challenge cup offered for the best exhibit of six bunches was won by A. Collings Wells, Esq., with some very fine flowers, the varieties shown being Mrs. H. Bell, Helen Lewis, Countess Spencer, Nora Unwin, John Ingman and Elsie Herbert. This exhibitor also won the Hucklesby Challenge Cup for the best bunch in the show with the bunch of Countess Spencer shown in the above group.

The challenge cup offered for the best six bunches shown by a cottager was won by Mr. H. Clarke, Seagrave, with blooms of moderate quality only.

SALTAIRE HORTICULTURAL SOCIETY.

THIS Yorkshire exhibition has grown very rapidly indeed into an annual event of considerable importance, and now ranks among the leading gatherings in the North. Its shows are principally devoted to the encouragement of Roses and Sweet Peas, and it has already welcomed both the National Rose and Sweet Pea Societies. The former was a conspicuous success as well for extent as for quality, but on July 13, when the latter society was the visitor, the weather for weeks previously had been so peculiarly unpropitious that the exhibits were few in numbers, and practically all the blooms shown bore marked evidence of the ordeal through which they had passed. Many of the flowers were of excellent quality, size and substance, and the colours were rich, and it was these which redeemed the exhibition from failure. Two of the leading Surrey growers were in splendid form, and were successful as a natural consequence.

SWEET PEAS.

The class which attracted the most attention was that for twelve distinct varieties, the premier award being the Edwards Silver Challenge Trophy and the gold medal of the National Sweet Pea Society; this class must be contested in the provinces. Unfortunately, there were only two exhibitors, but both staged magnificent flowers, and the fight was exceedingly keen. Mr. T. Stevenson, gardener to A. E. Mocatta, Esq., Woburn Place, Addlestone, Surrey (last year's winner), secured the leading place; but Mr. W.

Hopkins, gardener to Francis Wellesley, Esq., Westfield, Woking, was very little behind. Mr. Stevenson staged Mrs. Henry Bell, John Ingman, Nora Unwin, Prince of Asturias, Lavender George Herbert, Evelyn Hemus, Clara Curtis, Mrs. Hardcastle Sykes, The Marquis, Helen Lewis, Audrey Crier and Elsie Herbert. The best varieties in the second-prize stand were Zephyr, The King, Mrs. Hardcastle Sykes, Clara Curtis and Evelyn Hemus.

Mr. S. F. Brotherston, gardener to F. Samuelson, Esq., Breckenbrough Hall, Thirsk, secured the James Hill Cup, which was offered for competition among Yorkshire growers only; twelve distinct varieties were required, and those which won were Evelyn Hemus, John Ingman, James Grieve, King Edward, Etta Dyke, Helen Lewis, The Marquis, Audrey Crier, Prince of Asturias, Aurora, Mrs. Mander and Countess Spencer. This was a fine set of blooms. Mr. W. Heslington, Vare Garth, Littlethorpe, Ripon, was the only other exhibitor, and received the second prize.

The Breadmore Challenge Class was also for twelve varieties, and it was essential that all should be in commerce and catalogued. Here again there were only two exhibitors, of whom Mr. F. J. Harrison, Rose Dene, Ulverston, was placed first and Mr. D. M. Pike, Railway Hotel, Newark, second. The winner had fine bunches of Apple Blossom Spencer, Mrs. Henry Bell, Asta Ohn, Clara Curtis and Mrs. Hardcastle Sykes. Mr. W. Hopkins was an easy first in still another class for twelve distinct, Mr. D. M. Pike being second. Mr. A. A. Elliott was the only exhibitor in a class for six specified varieties and received the premier award. Mr. F. J. Harrison was first in a class for six varieties chosen from a list published in the schedule; he staged Anna Lumley, Mrs. A. Malcolm, Apple Blossom Spencer, Constance Oliver, Evelyn Hemus and Mrs. Hardcastle Sykes. The same grower won for three distinct varieties with waved standards, showing Marjorie Willis and Paradise Ivory in especially good form. Mr. A. A. Elliott won the first prize in the class for Sutton's Queen. The trade was excluded from the preceding classes.

In the open section the principal class was for eighteen varieties, distinct, selected from the National Sweet Pea Society's classification lists. Messrs. H. Jones and Sons, Limited, Shoplatch, Shrewsbury, were first, and had good bunches of Mrs. Collier, Marbled Blue, Lord Nelson, Mrs. Hardcastle Sykes and Constance Oliver. The second place was assigned to Mr. C. W. Breadmore, High Street, Winchester. In the class for twelve varieties, distinct, waved standards, the prize-winners were Messrs. Jones and Sons; Bolton Brothers, Warton, Carnforth; and C. W. Breadmore, in the order in which their names are here given. The leaders had splendid bunches of St. George, Elsie Herbert, Helen Lewis, George Herbert, The King and Evelyn Hemus. Messrs. Bolton Brothers were successful in both the classes restricted to American varieties, showing strongly in each case. Even in the single bunch classes the competition was comparatively poor, but the quality of the bunches ranged high. There were nineteen of these classes, and Mr. Stevenson secured the leading position in no fewer than fifteen of them. Of the remainder, Mr. S. F. Brotherston won two, and Messrs. Jones and Sons and C. W. Breadmore one apiece. In the decorative classes, Mr. T. Stevenson was similarly successful, other winners being Messrs. F. J. Harrison, G. D. Barrett (Yeadon), A. A. Elliott, C. W. Breadmore and Jones and Sons. The competition in the local classes was again poor, and the blooms staged were not, generally speaking, of particularly good quality.

ROSES.

The principal class in the Rose section was for seventy-two distinct varieties. The premier prize was a 50-guinea challenge bowl and a gold medal presented by Mr. G. C. Waud, a past president of the Saltaire, Shipley and District Rose Society. The coveted award was handsomely won by Messrs. A. Dickson and Sons, Limited, Newtownards, whose best blooms included Mrs. R. G. Sharman Crawford, Nita Weldon, Mrs. Roosevelt, Mrs. W. J. Grant, Marie van Houtte, Mrs. Mawley, Mildred Grant, C. J. Grahame, Lady Ashtown and Frau Karl Druschki. The King's Acre Nursery Company, Limited, was second. In the class for sixteen trebles precisely the same order was maintained; Messrs. Dickson and Sons had Mme. Jules Gravereaux, Countess of Annesley, Lady Helen Vincent, Nita Weldon, and Frau Karl Druschki in capital condition. Messrs. A. Dickson and Sons, The King's Acre Nursery Company, and Messrs. G. and W. H. Burch, Peterborough, received the prizes in the order here given for thirty-six varieties distinct. Messrs. A. Dickson and Sons, Limited, also led for twenty-four distinct, twenty-four Hybrid Teas, distinct, and for twelve Teas or Noisettes, distinct. For twelve blooms of Bessie Brown, Messrs. A. Dickson and Sons were first and The King's Acre Nursery Company, Limited, second, the same positions being maintained for twelve blooms of William Shean. For a similar number of either A. K. Williams or Hugh Dickson, The King's Acre Nursery Company went to the front with the first-named variety, and Messrs. A. Dickson and Sons followed with the second-named. Mr. Tom Park was conspicuously successful in the smaller classes.

NON-COMPETITIVE EXHIBITS.

Although these were not numerous they were varied in character, of splendid quality and added materially to the general effect of the show. A grand group of foliage and flowering plants was arranged by G. C. Waud, Esq., Baildon. The plants were admirably grown and artistically displayed. Messrs. Artindale and Sons, Sheffield, staged beautiful Violas and hardy herbaceous plants in variety. Messrs. Dicksons, Limited, Chester; W. Conway and Sons, Halifax; Mawson Brothers, Windermere; and Backhouse and Sons, York, all staged herbaceous flowers; while Mr. F. J. Bell, Whitley Bay, contributed Violas and Sweet Peas. Among the Sweet Pea specialists who assisted the exhibition in this section were Mr. Robert Bolton, Warton, Carnforth; Miss Hemus, Upton-on-Severn; and Messrs. E. W. King and Co., Coggeshall, Essex. Messrs. Batchelor and Sons, Harrogate, had a particularly interesting group of magnificently grown Nephrolepis in variety.

NORFOLK AND NORWICH HORTICULTURAL SOCIETY.

THIS society held its annual summer show on the 8th inst. at High House Gardens, Thorpe-next-Norwich. Unfortunately for the members and visitors, rain fell all the morning and was responsible for a great falling-off in the attendance, as the figures herewith will explain—1908, 5,300 visitors, gate-money £180; 1909, 2,350 visitors, gate-money £59. The exhibits staged in many cases, too, were below the average standard, and this also was attributable to the bad weather preceding the fixture. Roses were one of the worst offenders in this matter, the outer petals giving evidence of the excessive dampness. The class for forty-eight blooms and most of the other open classes were confined to three trade growers, viz., Messrs. B. R. Cant and Son, F. Cant and Co. and J. Burrell and Co. The Rev. J. A. L. Fellowes, Bunwell, had the honour of winning two challenge cups, one for thirty-six blooms and the other for twenty-four blooms confined to amateur growers of the county. His blooms were splendid examples, and the medal Rose, a Mrs. Edward Mawley, was in his stand. Miss Penrice Witton made a good display consisting mostly of the older types, which seemed to prove that they can withstand the elements better than the newer sorts. The smaller classes had their adherents, and here and there one could find an exceptionally superb lot.

What Roses lacked, Sweet Peas made good; a tent was devoted to them and was well filled. One side was taken up by a class for twenty-four bunches, distinct varieties. In this class Messrs. Daniels Brothers, Limited, Norwich, had offered a superb ten-guinea silver challenge bowl in addition to the society's prizes. Mr. T. Notley, gardener to E. Gurney Buxton, Esq., Thorpe, was the fortunate winner with a splendid arrangement. The second-prize lot from Mr. Lewis Smith, gardener to Robert Fellowes, Esq., Shotesham Park, was also a most creditable exhibit, Prince of Orange being especially large. In this section also smaller classes were arranged for those who possess only small gardens, and it was pleasing to see the friendly rivalry in this section of the show. Sweet Peas have come to stay in popularity for some time yet; but unless raisers keep varieties distinct they will do themselves harm.

Herbaceous flowers were another bold section, and when we say bold, we mean it not in the sense that the flowers were coarse, for although Delphiniums, Lupines and some Campanulas set up bold, the charms of Primulas, Heucheras and hosts of other such subjects were not lost sight of. Mr. George Davison, gardener to Colonel Petre, Westwick, came away from everyone else with his stand of forty-eight varieties. Imagine them, forty-eight bunches, three deep, 28 feet run of the show-board, and every one well grown and staged to its best. Carnations were a good feature. Mr. W. Allan, Gunton Park Gardens, excelled here, especially so with Cecilia, the massive yellow.

Fruit was rather below the average. The Strawberries looked overdone with wet. Peaches and Nectarines were only feebly represented, while Grapes were short in entries. Vegetables and salads seemed as if they only had appreciated the rain, especially Cabbages and Lettuces. Two growers had made groups. Messrs. Daniels Brothers, Limited, Norwich, had a bank of all the new Sweet Peas, named, useful for reference, and they flanked them with pretty flowering and foliage plants. Messrs. G. Stark and Son, Ryburgh, also had a group of Sweet Peas, including a large number of the popular scarlet G. Stark.

**** *Owing to the demand made on our space by the reports of several large shows, we are compelled to hold over the report of the Royal Horticultural Society's fortnightly meeting until next week.*

"Country Life" for July 24 contains, among other articles: "Country Home: Lyddington Bede House" (illustrated); "Tale of Country Life: A Modern Fairy Tale," by H. de Vere Stacpoole; "Church Bells" (illustrated), by Albert Hartshorne; "An Adventure on a Hebridean Moor" (illustrated) by O. G. Pike; "Wild Country Life"; "In the Garden" (illustrated).

Scottish Horticultural Association.—The usual monthly meeting of this association was held in the hall, 5, St. Andrew Square, Edinburgh, on the evening of Tuesday, July 6. There was a good attendance, and much interest was manifested in the paper of the evening and the exhibits. The paper was on "Roses," and was by Mr. W. H. Massie, of the firm of Messrs. Dicksons and Co., Edinburgh. Mr. Massie gave much interesting information on the subject, covering many points relating to the Rose and its cultivation. In addition to those relating to other aspects of the flower, he dwelt at length upon the necessity of careful and thoughtful cultivation, especially as regards planting, pruning and other treatment of the various classes of Roses. Mr. Massie also laid stress upon the importance of raising new varieties, and upon the field for such work which was open to gardeners as well as to the trade. The paper was well received, and Mr. Massie was heartily thanked for his valuable contribution to the association's transactions.

Horticultural show at Paris-Plage.—A few miles from Boulogne-sur-Mer is Le Touquet Paris-Plage, where, under the auspices of the local authorities and the National Horticultural Society of France, an International fruit, flower and vegetable show is being organised for August 21 to 29 next. There is no doubt it will prove an attraction for the English and other visitors to Boulogne. The schedule is a very liberal one, and it is hoped that exhibits may be sent from England, a space of some importance being set apart for their reception. Numerous medals and other prizes are offered in the 241 classes that are contained in the schedule. Further particulars can be obtained of M. Le Commissaire, L'Exposition Internationale d'horticulture à Paris-Plage (Pas de Calais), France.

The British Gardeners' Association at Newcastle-on-Tyne.—On Wednesday next, July 28, a meeting of gardeners will be held in connexion with the great summer show of the Horticultural Society of Northumberland, Durham, Newcastle-on-Tyne, by kind permission of the chairman and council. The first meeting will be held at 2.30 p.m. in the Recreation Ground, North Road, Newcastle-on-Tyne, in a special tent provided by the executive council of the British Gardeners' Association, and will be addressed by Mr. J. Weathers, general secretary of the association. Another meeting will be held in the same place at 7.30 p.m. Members of the British Gardeners' Association have the privilege of entering the flower show on the first day at half-price (1s.) up to 5 p.m. on showing their British Gardeners' Association cards of membership at the gate.—J. W.

East Anglian Horticultural Club.—"The Cultivation of the Strawberry" was the subject of an essay competition closed to under-gardeners at the July meeting of this club. Three interesting papers were read, and after adjudication the awards were made as follows: First, Ernest Hales, Keswick Gardens; second, E. J. Ottaway, Thorpe; and third, R. Bird, Tonbridge. The exhibits made a fine display, the decorative qualities of Sweet Peas and of Roses with long stems being gracefully depicted. The following day the club held its annual summer excursion. The secretary (Mr. W. L. Wallis) had made splendid detailed arrangements for a country drive of fifteen miles from Norwich to Earsham Hall, permission to visit the gardens there having been kindly granted by Captain Meade, J.P., D.L. Close upon 100 members joined the party, and not one would have liked to have missed the treat of a ramble through the old-time gardens and the more modernised part. The lake, with its sloping banks of choice flowering shrubs and plants, the acre of rock garden full of choice subjects, Bamboos growing luxuriantly, and the several glass-houses were all inspected, and interest was added by the genial gardener, Mr. Andrews, kindly accompanying the party. Thanks were accorded to Captain Meade for permitting the visit, and to Mr. Andrews.—P.

GARDENING APPOINTMENT.

MR. ANDREW HUTTON, for the past thirteen years gardener to the late George Keith, Esq., Usan House, Montrose, N.B., has been engaged by John Steward, Esq., Carlton, Curlieu Hall, Leicester. Mr. Hutton entered on his duties on July 15.

**** *The Yearly Subscription to* THE GARDEN *is: Inland, 6s. 6d.; Foreign, 8s. 9d.*

THE NEW SWEET PEA MRS. A. IRELAND.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

HOLIDAY RAMBLES IN THE SOUTH-WEST COUNTIES.

No more enjoyable way of spending a holiday for a man who is interested in gardens and gardening can be devised than a visit to a few of the notable gardens in the south-west counties of England and Wales, particularly if his duties have hitherto kept him in the north and east of the country. Dorsetshire, Devonshire, and particularly Cornwall and South Wales are especially favourable for gardening operations. From a landscape point of view, they have ideal conditions, the land in many parts being beautifully undulated, well watered and well wooded. In the vicinity of the coast, breaks in the trees open up beautiful views of the English Channel, Bristol Channel or Atlantic, as the case may be, while looking in other directions lovely stretches of country open out, which, in many instances in August and September, are ablaze with Heather, Ling and dwarf Gorse. Climatic conditions also are favourable to gardening operations, the climate being fairly mild, equable and moist. Some of the land is poor and not very profitable; but on the other hand, some of the very best soil in the country is to be found in these counties, and this may be said of no mean area.

August and September are excellent months to visit these gardens, and the holiday-maker should select a few centres from which to pay his visits. Exeter, Plymouth, Newquay, Truro, Falmouth and Penzance or Swansea are all suitable cities or towns to make as centres. A visit to a local nurseryman in either of these places is usually sufficient to give the visitor an idea as to how he may most profitably spend his time, while he may also, in some instances, be furnished with letters of introduction to the proprietors of gardens. If he does not obtain these, a letter to the owner of a garden usually obtains the necessary permission for a visit. A visit to these counties forces upon one the fact of the extreme kindness of the proprietors of estates and their agents and gardeners, for if they see that a man is genuinely interested in the contents of their gardens they frequently do all that lies in their power to assist him in obtaining entrance to other establishments and to making his holiday a success. The most difficult part of the undertaking is the distance that many of these gardens are from a railway station. If he is a cyclist, so much the better; but he must not be a nervous one, for cycling in parts of Cornwall, for instance, is full of exciting incidents, steep hills, narrow lanes and wide conveyances to pass being of frequent occurrence.

Conveyances can, of course, be obtained, but if the holiday-maker if fond of walking he can do well enough on foot, for his walks will be full of pleasure and interest. The narrow roads, with their high banks, are frequently bordered with huge quantities of Hart's-tongue and other Ferns, intermixed with Heather, dwarf Gorse and other showy British plants, while here and there, after passing between high banks and hedges, he reaches the top of a hill to find glorious expanses of Heather, views of the near or distant sea, or magnificent stretches of country. If he happens to find himself in the neighbourhood of The Lizard, he will be interested to see scores of acres of the Cornish Heath (Erica vagans) in full bloom, for in this district it evidently finds its head-quarters. One fact which forces itself on persons who are making their first visit to these southern counties is the vigorous character and striking appearance of two coniferous trees which are met with almost everywhere. These two are Cupressus macrocarpa and Pinus insignis, and both thrive amazingly. Other objects which are likely to appeal to him are the enormous specimen Fuchsias 8 feet or 10 feet high and as far through, which appear everywhere, and the thousands of specimens in full flower of Hydrangea Hortensia.

On entering his first garden he will at once notice the great difference in the class of arboreal vegetation to what he has been used to hitherto—large examples of Cordyline australis, Palms 10 feet to 20 feet high, Himalayan Rhododendrons, the scarlet-flowered Embothrium coccineum, large trees of various Eucalypti and Australian Acacias, immense bushes of Camellias and sometimes Indian Azaleas, hedges of Escallonia macrantha, bushes 15 feet high of many other Escallonias, fine specimens of Desfontainea spinosa and Tricuspidarias, Tree Ferns and hosts of other plants which the resident in a northern county has only known as puny pot plants before. Rare and tender conifers thrive amazingly, and such out-of-the-way kinds as Cunninghamia sinensis, Athrotaxis cupressoides, A. selaginoides and A. laxifolia, Dacrydiums in variety, Fitzroya patagonica and Saxegothea conspicua may be noted. In the neighbourhood of water he will find large masses of New Zealand Flax (Phormium tenax), Gunnera manicata with leaves 9 feet to 12 feet across, Richardia africana and many other subjects that are denied to the northern gardener. Rockeries will surprise him, for instead of the usual alpine collection he will find them ablaze with Mesembryanthemums, while Agaves, Yuccas, Aloes, &c., find places.

If in the neighbourhood of Falmouth, he must in no way miss a small garden in the town called Rose Hill. This is very favourably

situated, and contains a wonderful collection of plants. Citrons fruit well on an outside wall; Bougainvillea glabra occupies another position; Rhodochiton volubile flowers well on stakes in the open ground; Daturas form immense bushes and flower admirably; Bamboos, Palms, Cordylines and Tree Ferns are very fine; while there are very many rare and choice shrubs.

A climber which is very common throughout Cornwall is Solanum jasminoides. This grows everywhere and blossoms admirably, while Clianthus puniceus, Araujia sericifera and Cassia corymbosa are common wall plants. Myrtles form fine bushes and blossom freely, while one of the most conspicuous flowering shrubs in autumn is Myrtus Ugnii.

A few miles from Falmouth an exceptionally interesting garden called Bosahan is to be found. This contains many interesting objects, including a grove of upwards of 100 good-sized Tree Ferns, fine plants of Clethra arborea and a long wall clothed with Lapagerias. Tregothnan, the seat of Lord Falmouth, is a magnificent demesne and may be approached from either Falmouth or Truro. Is is specially worth a visit. In the vicinity of Penzance numerous other fine gardens occur, Trewidden being specially worthy of note. A fact which interests one about Penzance is the manner in which Geraniums cover the walls of houses; they are seen 10 feet or 12 feet high covering quite a large area, and must have occupied the same position for many years. A visit to Penzance is not perfect without the visitor makes up his mind to take steamer to the Scilly Islands; the journey occupies about three hours. He is landed on the Island of St. Mary, and from there he must take passage to Tresco, which occupies another twenty minutes, and inspect the famous Abbey Gardens. Mr. Dorrien-Smith, the proprietor, is an ardent gardener, and his garden is filled with horticultural treasures. His collection of Mesembryanthemums growing about in large masses numbers quite 100 varieties, while succulent plants of many kinds abound. New Zealand and Australian plants are specially cared for, and magnificent examples of Callistemons, Acacias, &c., are met with.

These few Cornish gardens are mentioned as examples; but much the same thing obtains in Devonshire, South Wales, &c., and the gardener who goes on a visit finds that his time has passed all too quickly; but he will look back with pleasure for many years to come on the holiday he spent among the gardens of the South-West.

D.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

August 2.—Buckingham Horticultural Show; Prescot Horticultural Show; Andover Horticultural Show; Lichfield Annual Flower Show.

August 3.—Royal Horticultural Society's Exhibition of Flowers and Fruit, Vincent Square, Westminster, 1 p.m. to 6 p.m. Lecture at three o'clock on "Water Plants," by Mr. F. W. Moore, V.M.H.

August 6.—Blyth and Rotherham Horticultural Society's Show.

"The Garden" Flower Show.—It is with great pleasure that we are able to announce that at the time of going to press exhibits are being brought or sent in from all directions. The entries are quite double the number received last year, some coming from as far north as Aberdeen and others from Plymouth in the south. It is most gratifying to find that our efforts to promote healthy competition among our readers are being so well supported. A full illustrated report of the show will be given in our issue for next week.

The Royal Horticultural Society's general examination.—The report of the examiners of the above examination, which was held on April 21 last, is now published in pamphlet form, and furnishes some interesting reading. In the classes for seniors, that is, those over eighteen years of age, 151 candidates entered, of whom 19 gained a position in the first class, 69 in the second and 60 in the third. Three candidates only failed. In this section S. N. Frost, Thatcham Fruit Farm, Henwick, Newbury, and J. W. MacCaig of the Royal Horticultural Society's Gardens, Wisley, Ripley, Surrey, were placed equal first. In the section for juniors, that is, those under eighteen years of age, the same questions were set as for the seniors, but, of course, an entirely different standard was expected in their replies; 140 candidates entered here, of whom 17 obtained positions in the first class, 41 in the second and 60 in the third, 22 failing altogether. The first positions in this section were shared by G. P. Boothroyd of the Letheringsett Gardening School, Holt, Norfolk, and P. Chisnall, Essex County School of Horticulture, Chelmsford. It is interesting to note that the next five positions in this section were also secured by students at the Essex County School of Horticulture. In their report on the senior section, the examiners state that the answers to the questions on the "Principles of Horticulture" were very satisfactory, especially those on physiology; and in the junior section they state that, with regard to principles, quantity and not quality was deficient. In "Operations and Practice," in both sections the examiners report that, considering the age of the candidates, the answers were very satisfactory.

Galloway House, Garlieston, Wigtownshire.—This fine estate, comprising the large and splendidly situated mansion of Galloway House and 10,000 acres of park and agricultural land surrounding it, has lately passed by purchase from the Earl of Galloway to Sir Malcolm M'Eacharn, who, with his family, has now taken possession and is residing there. This estate, which formed about half the property owned by the Earl of Galloway in Wigtownshire, contains some of the best agricultural land in Scotland, while the forests and woodlands are very extensive. The mansion, which was built about the middle of the eighteenth century, occupies a level plateau, and commands fine views over the estuary of the Solway, the waters of which, together with those of Wigtown Bay, form the south-eastern boundary of the estate, extending to nearly twenty miles in length. For the greater part of this course, along the more level tracts and around the numerous bays and inlets, vegetation thrives to within a few feet of high-water mark. In others, bold, rocky headlands and steep declivities, almost perpendicular and descending sheer into the ocean, are very conspicuous, adding variety and charm to the situation not often encountered contiguous to each other. In the policies fine specimens of Beech, Oak, Elm and Chestnut trees abound; while shrubs in great variety, more especially Rhododendrons, luxuriate with great freedom in the soft, saline atmosphere that prevails. In respect to the last-named shrubs, several clumps of R. russellianum, planted fifty years ago, are now nearly as many feet in height and are correspondingly great in circumference, flowering profusely every year. To show the trend of events and the times, it may be stated that portions of this estate, probably the greater part, have been in the possession of the Galloway family for 600 years. Mr. J. Day has been head-gardener here for nearly thirty years, having been engaged for the place by the late Earl and Countess of Galloway from Hatfield House, Herts, in the autumn of 1879, and took charge shortly after. For many years Mr. Day was a successful exhibitor, especially with fruit, at the leading shows both in Scotland and England, and although additional duties, by way of estate management, have of late enforced some curtailment in this, local and county shows still receive attention and assistance by the staging of produce from these gardens. Under the present proprietor Mr. Day continues to manage the garden and forestry departments of the estate, and as considerable alterations and improvements are contemplated, especially in the latter department, the former renown of the place will probably be maintained.

International horticultural exhibitions.—From time to time, in recent years, International horticultural exhibitions have been held at various centres on the Continent, as at Paris, Berlin, Ghent, Turin, &c. The last occasion on which Great Britain took part in these International courtesies was in 1866, and it has occurred to the Council of the Royal Horticultural Society that it is time that our country made an effort (say, in 1911) to return some part of the hospitality which foreign countries have so often extended to this country during the forty years which have elapsed since such a gathering was held in London. It has further been suggested that in connexion with it a fourth conference should be held on Genetics, *i.e.*, on the origin, breeding and heredity of plants. The first point to be considered is, of course, the financial one. In the case of the 1866 International Show at South Kensington the balance-sheet gives an expenditure of £13,000; and although this was more than covered by the receipts, it is only prudent to endeavour to raise such a sum. And this may be done, as it was in 1866, by a combination of a general guarantee fund and a definite subscription fund, every guarantor of twenty-five guineas receiving a ticket admitting to the show on the opening day and on one other day, and every subscriber of one guinea receiving a ticket admitting on the opening day. The Royal Horticultural Society will, in due course, call a meeting of horticulturists and others to consider the matter; and if the suggestion be adopted and an influential general committee be appointed to carry it out on these lines, the council is prepared to guarantee £5,000 on condition that all the Fellows of the society receive admission tickets (not necessarily on the first day), one ticket for £1 1s. Fellows, two tickets for £2 2s. Fellows, and four tickets for £4 4s. Fellows.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Transplanting Cauliflowers.—It is an established rule that most of the Cabbage tribe give better results when transplanted than if sown and merely thinned, probably because in most cases more fibrous roots are formed. An exception is to be found in the case of the early Cauliflowers, such as Sutton's First Crop and Veitch's Early Forcing. For many years we have grown these on rich, sheltered borders, the ground being previously dressed with quicklime or Vaporite to lessen the slug pest. The seed is covered with red lead to protect it from birds and sown about 1 inch apart, with a space of 1 foot between the drills. At this rate an ordinary packet will cover a considerable space. The young plants are thinned early to a distance of 9 inches apart, and as soon as possible are earthed up with a draw-hoe to prevent their swaying about. Receiving no check by transplantation, they grow vigorously, even in hot, dry weather, and they do not produce flower-heads prematurely, as is too often the case. The latter, though not large, average about 3 inches to 4 inches across, and are much preferred for table to those of larger size, especially as they are to a great extent protected from the sun by the leaves being pressed inwards by the adjacent plants, and are consequently of a close texture and delicately white.—J. COMBER.

Suggestions for the National Rose Society.—On page 335 your correspondent "P." makes two valuable suggestions to the National Rose Society, and doubtless many of us would much like to see both carried out, as the first would show the decorative character of many varieties to better advantage and certainly afford a truer idea of their value and growth. The idea of double canvas is worth attention, and in some seasons would appear necessary. I would like to see a class for British-raised Roses revived. What an advance we have made since such were exhibited at the metropolitan shows twenty-five to thirty years ago! Even then there were classes for twelve and eighteen varieties, and they held their own against others. Here are a few names of home-raised Roses that will show at a glance what sort of material we have to select from: Mrs. W. J. Grant, Mildred Grant, William Shean, Queen of Spain, Cleopatra, Mrs. Edward Mawley, Dean Hole, Muriel Grahame, S. A. Prince, Hugh Dickson, Mrs. John Laing, Her Majesty, Prince Arthur, Duke of Edinburgh, Mrs. R. G. Sharman Crawford, Molly Sharman Crawford, Margaret Dickson, C. J. Grahame, J. B. Clark, Lady Ashtown, Ben Cant, Medea, Beauty of Waltham and Duchess of Bedford give variety of colour in every form, and the list can be trebled without difficulty.—A. P.

Fortune's Yellow Rose at Castle Menzies, Perthshire.—It may interest your many readers to learn of the success which has been achieved here in the flowering of this beautiful Rose. Planted on a south wall in a well-sheltered and open situation five years ago, it has since made vigorous growth; but, except during the summer of 1907, when it showed seven blooms, this is the first season it has flowered. This year it has shown about 200 blooms of varied and wonderful colouring; some were self orange yellow, while others were flaked and striped with flame. In August of last year this Rose was treated much in the same way as the ramblers are dealt with. After flowering, most of the wood from which we had expected flowers was cut out; also the current year's growth was judiciously thinned to admit of the sun getting at those retained, with the result that we had well-ripened wood on the approach of winter. We find it to be perfectly hardy, having last year withstood without any harm 18° of frost on April 23, and this year on May 13 and 14 10° and 8°. The soil is sandy loam, but seemingly well charged with the necessary mineral food, as most Roses do well here with but moderate mulching and manuring.—J. FAIRLEY (gardener to Sir Neil Menzies, Bart.).

ROSE FORTUNE'S YELLOW IN THE GARDENS AT CASTLE MENZIES.

THE EDITOR'S TABLE

DELPHINIUMS AND PÆONIES FROM SCOTLAND.

Dr. McWatt of Morelands, Duns, N.B., sends us a very fine lot of Delphiniums, Pæonies, Liliums and other plants, all of which are of very high quality indeed. Among the Delphiniums were some very pretty varieties, a few that we specially noticed being Morelands Blue, rich azure blue; Penelope, very dark rich blue; Morelands Sky Blue, an exceedingly pretty flower that is an improvement even on Belladonna; Candidat, flowers very large and rich blue, shaded purple; and also several very pretty dwarf Delphiniums, which we understand Dr. McWatt has raised himself.

FLOWERS FROM IRELAND.

Mr. J. McWatters of The Mall, Armagh, sends us a very interesting collection of flowers. He writes: "I enclose for your table a few of the interesting plants now in bloom here, among them being Orchis foliosa, Philadelphus purpurea maculatus and several other varieties, Carpenteria californica, Ostrowskia magnifica, Tritoma rufa, Erigeron Quakeress and a pretty little white hardy Heath."

VIOLAS AND PANSIES FROM STORRINGTON.

Mr. J. Barnes of West Street, Storrington, sends us a beautiful lot of Violas and Pansies, which we were very pleased to receive. The size, shape and colour of these flowers are all excellent, and we congratulate our correspondent on his methods of culture.

A CURIOUS STRAWBERRY.

Mr. G. Bensted of Ulcombe sends us a very curious Strawberry, which is certainly not at all common. The so-called fruit has a remarkably large calyx, and in addition to this at the apex is quite a cluster of smaller fruits, as well as foliage; in fact, we might almost describe it as a young fruiting plant surmounting the old fruit. We have occasionally seen examples similar to this, but none so highly developed. Of course, it is a pure freak, and of no commercial value.

SWEET PEA TRIALS AT READING.

FOR the benefit of readers who are not members of the National Sweet Pea Society may I say that these trials have been conducted under the auspices of this go-ahead society in the grounds of the University College at Reading by Mr. Charles Foster. In the space of what I judged to be about an acre and a-half there are no less than 350 little rows of nine plants each, so arranged that one can walk all round each row. They are not all different varieties, for in several cases, *e.g.*, John Ingman, Triumph Spencer, &c., growers or dealers have sent their stock of those particular varieties to be tested. This is interesting and instructive, for there is an undoubted difference between the purity of the stocks of the same variety.

These trials are visited from time to time by the floral committee, and once in the season by the general body of members. It was on this occasion (July 16) that my visit took place. The first thing I did on my arrival was to purchase a copy of the "catalogue" of the trials. In this we get the name of the raiser or sender, the name of the variety and the colour, and a letter denoting the purpose for which it has been sent. There is also a blank page for notes. Armed with this I began my tour of inspection. Naturally, I paid a good deal of attention to those rows which were conspicuously marked by a piece of white paper. These were the novelties that the floral committee had picked out as worthy of special merit. In all there were eight, of which four belonged to Mr. Unwin and one each to Mr. Bolton, Mr. Breadmore, Messrs. Dobbie and Co. and Mr. Malcolm. Mr. Unwin has a lovely pale rosy blue; a grand large cream, said in the catalogue to be flushed with pink, but which was not there in reality, unless my eyes deceived me; a striking, rather dwarf maroon; and a beautiful orange scarlet flake on a white ground. This last and the cream I thought especially nice. Mr. Malcolm's Pea was his splendid warm pink Edrom Beauty, a plant of very vigorous growth and with fine large flowers. Mr. Breadmore's was one of his dazzlers (No. 7); it is a bright flower, after the style of St. George. Mr. Bolton's was described as "a new shade," and so it was. It was one of those colours which are most difficult to describe, a sort of faded rose with a suggestion, or even more than a suggestion, of mauve in it. To me it looked just a little washy. Messrs. Dobbie's Sunproof Crimson is a fine thing, and if it is what its name describes it to be, will be a valuable acquisition. All the above were Spencer forms.

So far I have described flowers which I may call "officially" good, flowers which trained eyes have selected from a large number as being something "extra." I am now going to mention a few that especially appealed to me as a sort of "man-in-the-street" observer. Before, however, I come to individuals I must say that what I saw at Reading fully bore out what I have long thought, and that is that bright reds of the Queen Alexandra shade of colour, oranges and salmons are very poor for garden decoration compared with the magnificent purples, pinks, mauves and roses. They are delicate-looking growers and seem to feel very much unfavourable weather or bright sun.

Two whites, H. J. Jones's Blanche Stevens and Stark's Stark's White, I marked as good; the former has very large flowers indeed, but there were only two or three on a stem. Aldersey's Helen Grosvenor was quite true and made a beautiful bit of bright colour. Tigwell's Mrs. Tigwell was a delicate pink flake on a cream ground. As a rule I do not care for the striped sorts, but this was one of the exceptions. Numbers 120 and 121 were two pinks sent by Messrs. E. W. King and Co., which were very fine indeed; they were of a rich, warm salmon pink colour and of large size. Miss Hemus's Zephyr seemed quite true, and is a most desirable variety on account of its beautiful lavender-blue colouring. Masterpiece is somewhat after the style of Mrs. C. Foster, but a more delicate shade. I noticed the Triumph Spencers and flowers somewhat similar in colouring as standing out very well. Again, the floriferousness of such sorts as Paradise Beauty, Paradise Constance Oliver, Improved Mrs. H. Bell, John Ingman, Mrs. C. W. Breadmore, Paradise Ivory, Prince of Asturias, Nubian (House), Sutton's Queen, Countess Spencer (Cole), Sky Blue (E. W. King) and Mid Blue (Dobbie) was very marked. In the opinion of those qualified to judge, these trials are doing much good. Besides being a test of the novelties, they are very valuable for the bold light they throw on the purity or otherwise of individual stocks.

JOSEPH JACOB.

TREES AND SHRUBS.

DIOSTEA JUNCEA.

THE subject of this note is a striking shrub of handsome appearance and one which appears to me deserving of much wider culture and recognition. It has been flowering here for the past few weeks and has been a conspicuous object of much beauty. Its season of flowering renders it all the more attractive, as at this period of the year the selection is much more limited than it is a few weeks earlier. Besides the above name the plant has several synonyms, one of them being Verbena juncea. The small, pale mauve flowers are borne on short racemes, and are freely produced from the previous season's growth. In general habit the plant somewhat resembles a Cytisus. To show it off to the best advantage it should be planted in an open situation, where it will make rapid growth and ignore what frost we are likely to have.

Elstree. E. BECKETT.

THE casual observer might well be excused if he mistook this shrub for a species of Broom, for in habit it has the appearance of a tall-growing Genista or Spartium. It is, however, more closely associated with the scented Verbena, Lippia citriodora, the two genera belonging to the same natural order. A native of Chili, it has been in cultivation in England for many years, but never in any quantity, and it is an extremely rare plant. The natural tendency is for it to assume the habit of a tall shrub of rather loose outline, with slender, pendent side branches of Rush-like appearance, sparingly clothed with small, oblong leaves. The flowers are white, tinged with violet on the outside, tubular and borne in small, dense heads from short axillary growths. The flowering period extends over several weeks in June and July. The pithy character of the young wood makes it a rather difficult plant to propagate, but cuttings of half-ripe wood inserted in a cold frame in August root moderately well. For those people who are fond of rare shrubs the one under notice will be found a suitable one to try, it being worthy of a position in any garden. W. D.

DIERVILLA EVA RATHKE.

THE various Diervillas or Weigelas form a useful group of shrubs for garden decoration, and the one under notice is, perhaps, the best of all, for it blossoms continuously for a period of several months from May onwards, while the colour of the flowers is a rich deep red, quite different from that of other sorts. It is, of course, of garden origin, and belongs to the large number of hybrids which are now included under the collective name of D. hybrida. D. Eva Rathke is an excellent shrub for a bed in a prominent place on a lawn, for a group in a shrubbery, or for growing in pots for forcing for the conservatory in spring. At one of the fortnightly exhibitions at the Horticultural Hall last spring this was, perhaps, the most noticeable plant among the great variety of forced shrubs exhibited, and it came in for a lot of admiration. The Diervillas are among the easiest of all shrubs to propagate, for cuttings of soft wood inserted in sandy soil in a little heat root in from two to three weeks. Growth in the early stages is rapid, and useful plants are quickly formed. This particular variety is improved by having old, worn-out wood removed in early spring, leaving as much as possible of the previous year's growth. Being such a prolific flowerer it soon exhausts itself unless generously treated with regard to top-dressings of rotten manure and an occasional application of manure-water. W. D.

RHODODENDRON PINK PEARL IN A BOSCOMBE GARDEN.

RHODODENDRON PINK PEARL.

SINCE the introduction of this beautiful Rhododendron a few years ago, it has been freely planted in gardens throughout the United Kingdom, with the result that many fine specimens are now to be found. The accompanying illustration is from a photograph kindly sent to us by Mr. G. G. Hamilton, Boscombe Place, Boscombe, Bournemouth, and represents a plant growing in the garden there. We understand this specimen measures about 9 feet in diameter, and would, of course, be a very beautiful sight during the flowering period, its extra large trusses of delicate and clear pink flowers showing up to the best advantage against the natural background of dark green foliage.

THE ROSE GARDEN.

THE CROSS-FERTILISATION OF ROSES.

[*In reply to a Correspondent.*]

I AM not at all surprised at your request for information upon this fascinating subject; the only thing that surprises me is the reluctance amateurs have shown in taking up the work of cross-fertilising Roses, as some are doing with Orchids, Daffodils, Sweet Peas and other flowers. Why should it be left entirely to the trade growers to give us our Rose novelties when the work of raising seedlings is so easy, even though a deal of patience, time, money and skill are requisite for the work?

The great advantage beginners may have is that they can commence where other raisers leave off. This may need an explanation. It is generally known that Messrs. A. Dickson and Sons produce a number of their seedlings by intercrossing various seedlings to the second and third generation. M. Pernet-Ducher obtains, I am told, many of his glorious novelties from the one seed-parent, a seedling of remarkable colour and almost single. Now, what is to prevent the amateur from crossing some of the latest introductions of these eminent raisers, and thus benefiting by their past labours and incorporating the good points of their novelties?

To show it is not essential to have a strain of one's own, I may instance the reputed parentage of four very remarkable Roses: Frau Karl Druschki was raised from Caroline Testout crossed with Merveille de Lyon; Earl of Warwick, from Souvenir de S A. Prince crossed with Mrs. W. J. Grant; Mme. Jules Gravereaux, from Rêve d'Or crossed with Viscountess Folkestone; and Mme. Segond-Weber, from Antoine Rivoire crossed with Souvenir de Victor Hugo. I myself have obtained some splendid novelties from crosses such as Frau Karl Druschki × Paul Ledé, Souvenir de William Robinson × Pharisaer, Pharisaer × Mme. Ravary, Irene × Pharisaer, Prince de Bulgarie × Earl of Warwick, G. Nabonnand × Liberty, Mme. Edmée Metz × Victor Hugo, Captain Hayward × Soleil d'Or, and hundreds of others—Rambler, China, Polyantha Roses, &c.—many of which will doubtless, in due course, find their way into our Rose gardens.

You ask if a Rose fertilises itself. I reply, Yes, but the offspring of such seed rarely produces novelties of merit. Mme. Abel Chatenay, Melanie Soupert, Mrs. W. J. Grant, Liberty and others will yield fine pods of seed that only need a hot, dry summer in order to ripen, but possibly a bushel of such seed would produce no more than two or three distinct novelties; hence the need to try and blend various qualities in our crosses. You also ask if Frau Karl Druschki and Maréchal Niel are good seed and pollen parents. The former is excellent and can be employed both ways. Maréchal Niel is very erratic, although Souvenir de Pierre Notting is reputed to have been raised from Maman Cochet crossed with the King of Roses. The late Mr. Henry Bennett once told me he had often seeded Maréchal Niel; but where the offspring went to I do not know. Probably at his lamentable death they were lost, or those who bought the seedlings lost them. It is well known that some of his seedlings have since been sent out by various houses without giving this grand old pioneer in cross-breeding the Rose the credit of raising them.

You will find some excellent information relating to the influence of the seed and pollen parents in a paper read before the Hybrid Conference by Max Leichtlin and printed in the Journal of the Royal Horticultural Society (Vol. XXIV.). Briefly, he says the female gives form, shape and certain other qualities, and the male colour. If the latter is richer in colour and freer flowering

than the female these qualities are transferred also. Doubtless raisers will be using the pollen of that marvellous cross the Lyon Rose, for it yields pollen freely, and probably it may be induced to seed.

In my essay, published by the National Rose Society and now out of print, I gave there various hints upon the subject of cross-fertilising the Rose; but to explain these in detail would take up too much space in THE GARDEN. However, it is a subject I am deeply interested in, and I gladly offer a few details that may help you and other amateurs to make a start in the work. In the first place, do not attempt the work outdoors. M. Pernet-Ducher does all his crossing in the open; but then he lives at Lyons and we are in sunless Britain. We can resort to our greenhouses, and it does not matter how small they are, providing all the sunlight obtainable can be utilised early in the year. Secure some established plants of the sorts desired for seed and also for pollen. They should be in 6-inch or 8½-inch pots. Prune them in December and start them steadily into growth by giving a temperature of about 50° at night. They should be in bloom early in March. When in bloom keep the atmosphere very dry, even though mildew and other pests may be the result. The flower to be fertilised should be denuded of its petals when in the bud stage, so that the stamens can be removed before the pollen is formed in them. A penknife and small scissors will do all this. Now wait until the time when the pollen would have been ripe if it had been allowed to mature. This would be about three or four days, perhaps more, but the flower may be fertilised before the pistils or female parts are in a receptive state, because it will be there when they arrive at this condition. To make doubly sure, the flower may be again fertilised from the same flower a day or two later. Envelop the bloom in a small paper bag and attach a tally with cross and date. It may be so enclosed for two or three weeks. Some may hesitate to remove the petals. I have not only done this, but have removed the calyx also. I do not, however, recommend the latter course.

Do not allow the roots of the plants to become dry, but keep the atmosphere dry and up to 70° if possible by day. Ventilation should only be given on very bright days. If pollen flowers ripen before required, the pollen may be kept between two pieces of glass and labelled. It will retain its virtue a long time. Keep the plants under glass the whole of the summer and autumn. The seed-pods will swell off and commence to ripen by July; but by giving abundance of air night and day they will hang on the plants until November, when they may be gathered with a stalk and placed in pots of damp sand. Here they remain until the time of sowing (December). An idea is prevalent that some mystery attaches to the cross-fertilising process. This is erroneous. Anybody can do the work who is possessed of an observing mind, great patience and common-sense. Starved plants are better to operate upon than highly fed exhibition plants. If you cannot procure pot-grown plants of the sorts you want, pot them up yourself next October and force moderately the first year, or, better still, grow them first outdoors for a year.

Sowing the seed must be done under glass, otherwise all our labour is wasted by the depredations of mice, woodlice, birds and slugs. Prepare a number of pots in this way. Take some 5-inch pots and place some fine crocks in the bottom. Next place a 3-inch pot inside so that the rims of both are level, and fill up the intervening space with fine peat. Leave a space at the top to take water to keep the peat moist. The object of this peat is to keep the soil in the small pot from drying, as Rose seed must never be allowed to dry after it has been taken from the pod. Prepare some fine compost as follows: Sifted loam, one part; sifted leaf-soil, one part; silver sand, one part. Put three seeds in each pot at a depth of half an inch, cover the soil to the level of the pot with silver sand and give all a good watering. Stand the pots on staging, preferably upon a bed of ashes, and maintain a moderate, genial temperature of about 50° to 55°, with a fairly humid atmosphere. Just spray the seed-pots over when necessary, so that an even moisture of soil is maintained. Sow the seeds immediately they are taken from the pods. If these latter are allowed to become crisp they are almost useless; rather bury them in damp sand until ready for sowing. There is a sort of juice about the seed which should not be allowed to dry, and by sowing it at once this is preserved.

The seedlings will begin to appear in two to three months, some before, and they must have the same care as choice seedlings of other plants would have, avoiding dampness. Water only on fine mornings and do not wet the seedlings if it can be avoided. If it is done, brush them over with a camel-hair brush. As soon as the seedlings show the third leaf, prick them off into small pots (thumbs) in the same compost. It would, of course, be best if only one seed was sown in a pot; then the pricking off would be unnecessary. We should simply pot on the little plant as required. The tiny seedlings will often flower the first year; but it would be best to pinch off the bloom, as often the plants die after flowering. Secure a bud as early as possible and bud it on to a small seedling Briar. Do not despair if the flower is not very startling. I remember when I first budded Earl of Warwick it was nothing very special, but see now what a Rose it has developed into.

In conclusion, I would advise any amateur desirous of taking up this work to try and specialise on some sort or species, as Lord Penzance did. Employ other hitherto untried types, such as R. lucida, R. microphylla, &c. I saw a lovely hybrid at Kew from this latter; it had a big flower like an Azalea. Take, for example, that delightful Rose, R. sinica Anemone, a cross between R. sinica and a Tea Rose; or Una, Mr. George Paul's lovely single Rose, a cross between R. canina and a Tea. Then see what Mr. George Laing Paul is doing in creating quite a new race of creeping Teas by crossing Tea Roses with R. wichuraiana. The marvellous variations possible are almost as inexhaustible as the changes on a peal of bells. It only needs leisure, skill and patience to accomplish some yet marvellous results, and I hope these few disjointed notes may induce you and others to take up the work.

Eastwood, Essex. WALTER EASLEA.

THE KITCHEN GARDEN

A VALUABLE SUMMER LETTUCE.

(CARTER'S HOLBORN STANDARD)

AT certain seasons the excellent qualities of different vegetables are more prominent than others, and this summer, owing to the great rainfall in June and July, the above Lettuce has proved a most valuable variety. Even in adverse seasons Holborn Standard is reliable, but this season the quality has been exceptionally fine. As many growers are aware, a wet season is not always the best for Lettuce, as some of the best Cabbage forms when full grown do not keep well; but this is not the case with the variety under notice, as it appears to me what one may almost term weather-proof. The heart, though remarkably crisp, does not decay, and remains sound a long time, thus making it invaluable in such a season.

A GOOD SPECIMEN OF LETTUCE CARTER'S HOLBORN STANDARD.

Previously I had noted its value in a hot season, as it is one of the last of the Cabbage forms to run to seed, and its firm growth appears to ward off attacks of fly or other pests. As a large portion of the plant is heart or centre, there being few outer leaves, this variety is one of the best where space is none too great and the best quality is required. Sown several times during the season from April to August, there will be a supply of choice salad material at command and grown at a small cost as regards labour, as the plants form their heads very early, and even in a small state the flavour is excellent.

It is one of the most handsome Lettuces I have grown and a splendid exhibition variety.

G. WYTHES.

[The specimen shown in the illustration was grown from seed sown outdoors the middle of April and was given only ordinary treatment. The photograph was taken on July 15, when the Lettuce measured exactly 16 inches in diameter. ED.]

PEAS IN OCTOBER AND NOVEMBER.

THE amateur with a small garden often has dishes of Peas in July, but there is none much later. Those who have to rely upon the greengrocer cannot expect Peas much later; but those with gardens at command can have nice dishes by sowing now if the crop is grown in an open position and not crowded. I am aware even with a good position some failures will occur, but in nine cases out of ten the soil is at fault; it is, however, worth improving. We often go to a lot of trouble to grow large Onions, Parsnips a yard long and similar useless vegetables. Why not improve poor soil to get autumn Peas? The soil is not only made more suitable for one crop, but others that follow it.

As Peas on a poor, thin soil resting on gravel will not give a good return in the autumn, the land must be improved. I advise double digging even now, at the same time incorporating a good amount of stable manure. Also, in poor, thin soil the Peas should be grown in deep drills or trenches, and in such soil loam of a heavy nature must be added for the roots. The difficulty is to keep the roots cool and strong, say, in August or early September, but if this can be done the result will be satisfactory; there must be no check, but free growth from the commencement. I am aware, in a hot dry season, at the start moisture may be necessary, but in deep drills or trenches with ample food the moisture is retained. I do not advise just merely damping the plants, but well watering at the roots. I have, to prevent rapid evaporation, placed a mulch of spent manure or even litter on the surface soil outside the rows, and the earth is maintained much cooler treated thus.

I do not advise the culture of autumn Peas in a small back garden in a town, but in the country there is no difficulty if the grower studies the plant as advised. I found it a good plan to sow on what one may term a cool site, as here the Peas get more moisture at the start, and once they are robust they go away freely.

For some time I relied upon Gradus, a most valuable variety either for late or early supplies; but since then Sutton's Early Giant has been a great favourite. We have now also some varieties specially adapted for this season, such as Sutton's Late Queen and Carter's Michaelmas; these do not exceed 3 feet and they are of fine quality. The dwarfer early Peas, such as Little Marvel, are also excellent. Another good Pea equally suitable for late sowing is Langley Gem, a variety not so well known as it deserves to be. It is dwarf and of excellent quality, and may be regarded as a good all-round Pea for small gardens. G. WYTHES.

THE FLOWER GARDEN.

RAMONDIA PYRENAICA ALBA.

AMONG the cool and shade-loving alpines none is more popular, none more easily managed, and none gives greater general satisfaction than the Ramondia, though most prized of all is the pure white form of the plant which is shown in the accompanying illustration. What the Ramondia delights in are the cooling influence of sandstone or other rock and that degree of uniform shade which in the rock garden is most usually afforded by a north-western aspect. In such a spot as this, and in a free mixture of loam, sand, leaf-soil and peat in equal parts, the plant gives little trouble if well and firmly planted and where the soil available is by no means meagre. The plant will do quite well in a moist peaty soil on level ground, but the rugged leaves lying prostrate thereon never appear to such advantage as when facing the nearly vertical surface of a wall, and here, too, the plant appears perfectly at home when in flower. The seedling forms of the Ramondia are variable, and apart from the yellowish centre, the petals often assume a pinkish tone that in no sense detracts from its beauty. What the plant detests is anything approaching to root dryness, which causes the leaves to shrivel up. The illustration is from a photograph taken in Mr. E. A. Bowles' gardens at Myddelton House. E. J.

RAMONDIA PYRENAICA AT MYDDELTON HOUSE GARDENS.

THE HARDY PRIMULAS.

(Continued from page 362.)

PRIMULA STEINII (hirsuta × minima).—Nearer to P. hirsuta.

P. Sturii (minima × villosa).—From the high limestone Alps of the Southern Tyrol; closely allied to P. Allionii, with rose lilac flowers.

P. variabilis (acaulis × officinalis).—A handsome border plant, with umbels of Primrose-like flowers.

P. venusta (Auricula × carniolica).—A native of the limestone Alps of Carinthia at an elevation of 3,000 feet to 4,000 feet. It is very near P. Arctotis, but may be distinguished by its rose-coloured, purple, or white—never yellow—flowers and by its leaves regularly serrated and edged with white. The whole plant is mealy, and it is as easily grown as the varieties of P. Auricula.

P. Venzoi (tyrolensis × wulfeniana).

P. vochinensis (wulfeniana × minima).

P. Wettsteinii (clusiana × minima). — From the Wiener Schneeberg in Austria.

Besides these the number of hybrids raised in gardens are very numerous. Below follow a selection of plants suitable for each of the three conditions under which the plants of this family may be grown; but while those plants under each head will succeed well with those conditions, it does not follow that they may not also be successfully grown otherwise. As in the case of P. japonica, which may either be grown in a bog or border, it attains to its greatest size in rich, moist ground.

Rock Plants.—P. Arctotis, P. Auricula and varieties, P. calycina, P. carniolica, P. clusiana, P. Facchinii, P. Heerii, P. hirsuta and varieties, P. marginata, P. œnensis, P. Palinuri, P. pedemontana, P. spectabilis, P. villosa, P. viscosa and P. wulfeniana.

Marsh Plants.—P. auriculata, P. deorum, P. farinosa and varieties, P. frondosa, P. grandis, P. involucrata, P. japonica, P. longiflora, P. luteola, P. Parryi, P. Poissonii, P. rosea, P. sikkimensis and P. vittata.

Shady Borders (Moist).—P. capitata, P. cockburniana, P. denticulata, P. d. cashmiriana, P. elatior, P. megaseæfolia, P. officinalis, P. pulverulenta, P. Stuartii and P. Veitchii.

Many good plants are, doubtless, omitted in the above selections; but those given can be recommended as being among the easiest to grow and likely to give the best results. W. IRVING.

THE EASTERN BELLFLOWER.

(OSTROWSKIA MAGNIFICA.)

THE Eastern Bellflower is one of the noblest of hardy perennial herbaceous plants—noble in the twofold sense that it is a giant so far as its individual flowers are concerned and because of its imposing stature and distinctiveness when seen in good-sized groups in

our gardens. Comparable to no other flower of the garden at any season of the year, it is a plant to be studied and made much of by every lover of hardy plants, and those in particular who desire to grow the most striking, beautiful and interesting subjects a garden may contain. That this remarkable plant is not a success in any and every garden or locality is well known, but the fact should greatly strengthen the determination of those for whom the best of everything is quite good enough, while a few difficulties to be overcome at the start with a subject so unique adds a thousandfold to the pleasures that a complete success invariably ensures.

The giant blossoms, as seen in the illustration, are openly bell-shaped, whitish, and with a lilac suffusion throughout. Those of the largest size are often 5 inches across the mouth; hence it will be seen that it is handsome in the extreme. From the cultural point of view the plant requires a warm corner, and should be planted in sandy, well-drained loam which is freely intermingled with old mortar or lime rubbish. Rooting to a considerable depth, the long, Carrot-like roots often descending to 2 feet or even more, the bed of soil should be well and deeply prepared, as once the plant reaches the flowering stage, which it usually does in about four years from seed, the plants may give a fairly good flowering each year. In this respect it is not absolutely reliable, however, and much will depend upon the way the plants have passed the winter. Like not a few of the Bellflower family, the plant is frequently attacked by slugs, the pest being particularly fond of the crown-buds. The flowering period is July, and, where established pot plants are available, these should be planted in spring or early summer. As the roots are very brittle and easily broken, the plant should be handled with care. It is a native of Eastern Bokhara, and usually attains 3 feet or thereabouts in height. The illustration depicts a group of this magnificent plant growing in the nurseries of Mr. Amos Perry, Enfield. E. H. JENKINS.

SWEET PEA CHAT.

CUTTING DOWN.—Plants which have been flowering incessantly since the earlier half of June, and have during the time produced many thousands of blooms, may be expected to show some indications of becoming exhausted at the present date. This will more particularly prove to be the case in those instances where it has not been possible to provide a sufficiently wide variety of food and where the lateral growths have been allowed to proceed practically unchecked. Later plants will probably be yielding abundance of excellent stems for home adornment or for exhibition, as the case may be, and little trouble will be experienced in keeping them growing freely for a considerable time yet, provided that it is easy to give plenty of water and liquid manure in at least three kinds, with a surface mulching of short manure to keep the soil cool and moist. Those who go away for their holidays during the month of August may advisedly try cutting the plants down now that they are obviously passing their best, in the hope that they will give a second crop of flowers in September. The treatment sounds very drastic, but there is scarcely any likelihood that disappointment will be the result. All shoots should be severed at about 3 feet from the ground with a pair of shears, and all that the grower has then to do is to attend to them carefully and wait.

TREATMENT OF THE PLANTS.—As soon as the tops have been removed, the cultivator should thoroughly fork over the soil with a view to loosening it to a depth of about 3 inches, and then set to work and give water in immense quantities until it is absolutely certain that the whole mass to 3 feet down is quite moist. A day or two after this follow on with some liquid manure, and use that generously, too. It is not particularly important what kind is used at this stage; but since it is essential that we shall have fresh growths, it is wise to use a certain proportion of nitrogen. At the same time much care must be exercised, or the result will be luxuriant shoots that will never give any good flowers. Soot-water has been proved excellent for this stage, as indeed it has for practically all others when food is wanted, while nitrate of soda at the rate of three-quarters of an ounce to a gallon of water will seldom come amiss to plants with healthy roots working in a friable soil. The quantity of either of these that should be given must not be less than three gallons to the square yard, and it may be much more if the soil is light and especially porous.

As soon as the soaking with water and liquid manure is completed, the grower should procure some of the finest stable or farmyard manure and spread on a mulch 3 inches in thickness from within 1 inch or 2 inches of the base of the plants to 2 feet or 3 feet away; subsequent watering or rain will wash in the nutrient matters from this, and the plants will derive decided benefit. We have, however, to consider the top growth as well as the roots. The plants should be hosed or heavily syringed on the evenings of fine days for a week or so. The result of the cutting down will be the production of large numbers of new growths, and if all of these are allowed to remain the plants will become thickets of comparatively weak spray that will never yield any good blooms. Therefore it is imperative that disbudding shall have careful attention and no plant be permitted to carry more than two or three stems. The object should be to select only that number for which there is ample space, as unless the whole of the progress is made in full light the results can never be fully satisfactory. To this end the plants ought to be closely watched and the superfluous buds that start rubbed out as soon as possible; but the work must be done in stages so as not to give the plants a check. It is really astonishing to those who have not had recourse to this treatment what splendid results may be achieved with so little trouble. The stems carrying the blooms will be long and strong, and it will be no uncommon thing to find three and occasionally four blooms on some of them, while the size, substance and colour will be excellent. SPENCER.

ONONIS ROTUNDIFOLIUS.

A NATIVE of Southern Europe, this low-growing, shrubby herbaceous perennial usually arrests attention, and is a most desirable asset in any garden. Few plants associate and lend themselves more artistically to the borders of the shrubberies than the above, or when planted on an open position on the rockery, with plenty of room to develop, this will soon make a charming mass. The pink, Pea-shaped flowers are freely produced as soon as growth commences early in spring, and continue to come in abundance throughout the summer months. Plants can readily be obtained from seed, which ripens freely. E. BECKETT.

COLOURED PLATE.

PLATE 1379.

NEW SWEET PEA MRS. A. IRELAND.

THE National Sweet Pea Society cannot be accused of being too liberal with its awards.

A CLUSTER OF OSTROWSKIA MAGNIFICA IN MR. AMOS PERRY'S NURSERY.

Last season it gave only three first-class certificates. George Stark, a new waved red variety, obtained one; but it is not to be sent out until next season. Mrs. Henry Bell obtained another, this being a cream variety shaded with pink; it was introduced by Mr. R. Bolton last year, and is deservedly popular. Mrs. A. Ireland, the subject of our coloured plate, was the other favoured variety; it is a charming waved bicolor raised and introduced by Messrs. Dobbie and Co. of Marks Tey and Rothesay. It has been officially described as a waved Jeannie Gordon, and to those who know Jeannie Gordon such a description conveys a very good idea. For all kinds of decorative work Mrs. A. Ireland will be most valuable. Mrs. A. Ireland, we venture to predict, has a very bright future in store for it, and we greatly admired it last year, both when cut and used for table decoration and also as seen growing in Messrs. Dobbie's nursery at Marks Tey. During the present summer this Sweet Pea has behaved splendidly, and in many gardens has given an abundance of its lovely Apple-blossom-like blooms which stand up so well above the foliage. Under artificial light the flowers are very pretty indeed.

GARDENING FOR BEGINNERS.

SUMMER TREATMENT OF PELARGONIUMS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Lawns are very green at the present time and require mowing every week ; indeed, in some districts where the soil is rich and rather retentive, twice each week will not be too often to cut the grass. The best lawns are those on which the mowing-machine has been used in opposite directions each time. I know that some users of the machines take them in the same direction round the lawn every time the grass is cut, with the result that the surface shows a gimped appearance. To avoid this and secure a perfectly even surface, do as here suggested, namely, mow in different directions each time. When all the lawn has been mowed that can be reached with the machine, it will be necessary to use the edging-shears and also the small hand-shears in many instances. Too often one sees long grass growing just under the outer branches of shrubs and also near walls and fences generally. When such conditions obtain, it does not matter how well the remainder of the lawn is cut, the work will be unfinished. Where long grass is found growing in corners, under trees and shrubs and over the grass edgings, no time should be lost in getting it cut. Carnations that have been layered in the open borders must be examined, and if the new compost has become dry, water should be given carefully through a fine-rosed watering-can. Very often the fresh compost contains many seeds of weeds, and seedlings of the latter must be removed while they are quite small. Every effort ought to be made to get the layers well rooted before the cold, winter weather comes.

Vegetable Garden.—Owing to the frequent showers of rain which have fallen during the summer season to the present time, watering by means of hose or watering-can has not been necessary, except in the case of newly planted seedlings. Vegetables always do best when not watered artificially, when the soil is sufficiently moist from rain-water ; but in all cases the hoe must be kept at work—never allow this tool to rust for want of using. It keeps down weeds and creates a surface mulch of dust, and in the case of naturally heavy soils it prevents the surface caking and cracking. At this season many kinds of weeds begin to mature their seeds, and where this is so there follows, without fail, a great crop of seedlings in the autumn. Probably, up to the present time, circumstances have prevailed which prevented the cultivator hoeing down the young weeds, and now the latter are maturing. Tackle them at once and remove as many as possible to the fire-heap in some odd corner in the garden, as if left on the ground the seeds will shed there and germinate in due course. Again, many cultivators keep down all weeds on open ground between the rows of vegetables, but forget to pull out those growing in the rows. The latter require careful seeking, as they run up among the Peas and Beans and are not readily seen. When weeds are destroyed while in a young state the cultivator has more time to devote to the vegetable crops. As Potatoes, Peas and Beans are gathered, the ground must be got ready for the planting of Kale, Broccoli and Savoys. It is not necessary to deeply dig the soil nor enrich it very much with manure, as the plants will withstand the winter weather better in a firm soil of medium richness. Light ground occupied by Potatoes will be all the better for a good treading down before any winter greens are planted in it.

1.—A PELARGONIUM PLANT AFTER FLOWERING AND IN A SUITABLE CONDITION FOR CUTTING BACK.

Fruit Garden.—The summer pruning of fruit trees should be done without fail every year. The value of this operation is as yet only realised by a few cultivators of hardy fruits. Trees bristling with fruit-buds are a joy to the enthusiast. By judicious summer pruning strong-growing Apple and Pear trees can be brought into a fruitful state in the course of two years, especially if root-pruning be done also in the autumn. The side shoots must be cut off about 4 inches from their base. Leading shoots ought not to be touched in the summer-time. The result of the cutting back of other shoots will be to admit light and air to the buds and remaining portions of those shoots. Fruit-buds will plump up, and the winter pruning will mean the cutting hard back of the remaining portions of the shortened shoots and also the shortening of the leaders. At the present time small new growths will appear at the ends of the summer-pruned shoots, and these must be removed as soon as they are large enough to handle.

Greenhouse and Frames.—Very few greenhouses are artificially heated at this season of the year, and those structures situated on high ground and facing due south rarely contain stagnant moisture, but many greenhouses in other positions do. More work is necessary to maintain a fine display of flowers in the latter kind of greenhouse on account of the damping off of the blooms. The central portion of each truss of Zonal Pelargoniums is the first to fail ; consequently the fading blossoms must be removed before they contaminate the others. Another good help to the lasting properties of these flowers is to wipe up all pools of water lying on tiled floors. Calceolarias and Cinerarias in frames may be fully exposed at night when the weather is calm, the lights being replaced early in the morning, so that the plants can be shaded from very bright sunshine.

B.

SHOW, FANCY AND REGAL PELARGONIUMS.

How to Treat the Old Plants.

THESE Pelargoniums are very showy, free-flowering plants in late spring and early summer. The culture of these plants, however, is but little understood, for not seldom they are seen in a much neglected condition and suffering from the attacks of insect pests. These showy Pelargoniums were far more popular years ago than they are to-day, and were freely cultivated in consequence. Huge specimen plants used to be exhibited at the great shows in the early summer, and these seldom failed to gain admirers. At that time these subjects were also largely grown for market purposes, and they are still cultivated on a large scale for supplying plants for window decoration in the late spring and early summer.

2.—THE SAME PLANT AFTER THE SHOOTS HAVE BEEN CUT BACK.

The Show, Fancy and Regal Pelargoniums differ widely from the Zonal Pelargoniums (Geraniums) both in foliage and flowers, and need entirely different treatment. This fact should be borne in mind by the grower who desires to succeed in the cultivation of the plants. The present is an excellent period to take in hand the old stools of these plants if any success is to attend our efforts another season. They will be past flowering in the majority of cases, and will need treatment to fit them for flowering satisfactorily another year. In achieving this the grower will provide himself with a plentiful supply of useful shoots, from which cuttings of a suitable kind can be obtained for perpetuating the different varieties. Those who have plants that have gone out of flower should forthwith stand them outdoors in a nice sunny position, so that the stems of the plants may become thoroughly ripened. To assist in this matter it is well to withhold water, doing this gradually, so that the plants will not suffer by so doing. In a little while the foliage will gradually lose colour and then fall off. When standing the plants outdoors, they should be arranged on a bed of sifted ashes to prevent the ingress of worms in the hole in the bottom of the pot.

Fig. 1 serves to illustrate a plant that was purchased from the florist when it was coming into

3.—SHOOTS OBTAINED FROM THE OLD PLANTS WHEN CUTTING BACK THE GROWTHS. THAT ON THE LEFT IS A PORTION OF GROWTH JUST AS DETACHED, AND THAT ON THE RIGHT A SIMILAR GROWTH PREPARED AS A CUTTING.

flower, and after a season's blossoming is now ready to be dealt with in the manner indicated above. The process of cutting back such plants will then need immediate attention if success is to attend our efforts. The plants should be cut back to the second or third eye; some growers cut back less hard, while others are disposed to shorten back the growths even more severely. An "eye" may be described as that part of the stem where a leaf did, or does, adhere to it, from the axil of which new growth is made, and from this and other new growths the future plant is built up. When the cutting back of the plant is completed it should be as represented in Fig. 2. This is the same plant as shown in Fig. 1, and clearly indicates how the pruning should be done. Had this plant been cut back more severely last season, it would have been more shapely in appearance on the present occasion.

Immediately subsequent to the pruning or cutting back stand the old plants in a pit or frame, keeping them rather dry for a few days, taking care, however, to syringe them overhead with clear water every day, so as to moisten the old wood and to encourage the development of new growth. In a little while new shoots will be visible in the axils of the leaves, and to promote their well-being water should be applied to the roots, but not too often at first. Moisten the soil throughout at each application of water, however. When the new growths are half an inch or so in length, turn out the plants from their present pots and reduce the ball of soil round about their roots, so as to enable the plants to be repotted into pots a size or two smaller than they formerly occupied. Repot in a compost made up of two parts loam, one part leaf-mould and a quarter of a part of coarse silver sand. Pot rather lightly. Subsequently observe the greatest care when watering, giving just a little in the first instance to settle the soil; afterwards, for some time, just sprinkle the plants overhead. Err on the dry side and thus maintain the plants in health. Keep the plants in a cool and airy glass structure, potting them in their flowering pots when the new shoots are about 3 inches in length. Should green fly make its appearance, lose no time in fumigating; when dealt with promptly the plants may be kept free from this pest.

Fig. 3 represents, on the left, an example of the shoots that were acquired when the plants were cut back; on the right is a cutting prepared from such material. To make a cutting it is necessary to trim off the lower leaves of a shoot and then to cut through the stem with a sharp knife immediately below a joint. Insert the cuttings singly in 2½-inch pots, using soil similar to that described above. Place a layer of sand on the surface, inserting the small dibber in this, thus carrying a small quantity of sand to the bottom of the hole, on which the cutting should rest. Press the soil firmly at the base of each cutting, as this is a very important, though an apparently insignificant, detail. Stand the pots in a cold frame, pot to pot, until rooted, watering in the cuttings in the first instance and simply sprinkling them overhead subsequently from time to time. Ultimately these cuttings should be represented by nicely rooted plants, as portrayed in Fig. 4. When so well rooted they are in a fit condition to appreciate a shift into a pot of larger size. The temperature of the glass structure may fall to 40° or 45° by the end of October, and should be kept at about this figure until the end of January. From that time the temperature should be increased gradually, until on a warm, sunny day 60° to 65° may be reached. When watering at this period never wet the foliage, and water with the greatest care. Water only when the soil is dry, and then give sufficient to moisten the soil throughout. D. B. C.

THE TOWN GARDEN.

GAPS IN FLOWER-BEDS.—Even when the greatest care is taken of all plants newly put out in flower-borders, there will be a few gaps in some gardens owing to odd plants dying or getting broken off. The amateur who has wisely retained a few plants of each kind bedded out will be prepared for any of the mishaps referred to, and no time must be lost in removing the unsatisfactory specimens and putting in the reserve plants. As the other plants are already established, it will be necessary to keep a watch upon those recently planted, as if the weather proves dry and sunny water must be given. It will not take the plants long, however, to become well rooted in their new quarters.

ZONAL PELARGONIUMS FOR WINTER FLOWERING.—While attending to the requirements of summer-flowering subjects, the town gardener must not neglect to provide for the autumn and winter display of blossom in the greenhouse and conservatory. There are few subjects that prove more satisfactory than Zonal Pelargoniums, both the double and single flowered sections. The main essentials to success are early rooting of plants and the building up of fine bushy specimens before the autumn days come. Cuttings which were inserted in March last are now far enough advanced to be potted finally. The pots must not be too large, as it is advisable to get them well filled with roots as soon as possible so that feeding can be done. The following is a suitable compost to use for the final potting: Fibrous loam, two parts; leaf-soil, one part; rotted manure, sand or road drift, one part. Pots 6 inches in diameter are quite large enough. Do not press down the soil too firmly in the pots, as the constant watering tends to make it firm, too. Good drainage is essential. After the potting is finished, place the plants in the warmest position in the garden on boards or ashes. The exposure to the sunshine and air will ripen the wood. There will be nothing more to do to the plants until the time comes for placing them under the protection of glass, except the removal regularly of all flower-stems. These must be pinched off when they are small as late as the end of August.

CHRYSANTHEMUMS IN POTS.—Nearly all town gardeners like to have a few pots of Chrysanthemums both for early and late flowering. The compost in which the plants are grown is, as a rule, rather poor, and if they are not fed judiciously only very small specimens will be available when the time comes for putting them indoors. These plants need sunshine and plenty of air, and so they must be kept in open quarters throughout the summer months. Give weak doses of soot-water twice each week and one of some approved artificial manure. At the end of a fortnight give liquid manure twice and artificials once each week. Of course, clear water should be given between the doses of manure; and if the weather proves rainy during a prolonged period, when it is not possible to apply liquid manure frequently, sprinkle artificial manure on the soil in the pots. This will prove more beneficial than when diluted first.

SWEET PEAS.—The plants are now getting past their best condition in many instances where the soil is shallow; but if rich mulchings are put on and the plants are well fed, fresh shoots will grow, especially when the flowers are gathered regularly every day. Large clumps or long rows of Sweet Peas in full bloom look charming indeed, and amateurs who prefer to see them so and are quite satisfied do not expect the display to be very prolonged and are not disappointed; but others who expect a lengthened flowering period from the same plants must not hesitate to cut all flowers directly they are developed.

STAKING PLANTS.—A month ago the town gardener may have staked all the plants very neatly in the borders, but notwithstanding this fact a number of subjects will require attention again at the present time. Many kinds of herbaceous plants make very quick growth, and unless the straggling shoots are nicely supported in such a way as to leave each sort in its natural form, the garden, especially that part of it devoted to these border plants, will present a very untidy appearance. I lately saw a garden in which herbaceous plants formed the chief feature, and as they were well cared for the garden looked extremely neat. It was a front garden in a town. AVON.

4.—A YOUNG PLANT OBTAINED FROM A CUTTING SIMILAR TO THOSE SHOWN IN FIG. 3.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Fruit Department.

VINES.—Keep the foliage of Vines from which the fruits have been cut well syringed at intervals, and should red spider be troublesome, use a mixture of soap-suds and sulphur, or some other approved insecticide, till the leaves have been thoroughly cleansed. Ventilate freely night and day, and if the growth is very strong a little fire-heat applied will greatly assist the ripening of the wood. Do not neglect the roots, especially those growing inside, and should they require water, give it freely, with the addition of an occasional deluge of liquid manure.

Late Grapes.—Keep these growing steadily and the atmosphere moist during bright, sunny weather. Gros Colmar needs a long time to finish, and to improve the flavour and tenderness of the skin requires more warmth and moisture than is usually afforded it; the atmospheric moisture must, however, be gradually diminished as ripeness proceeds. Remove lateral growths as they appear and endeavour, as far as possible, to maintain the older foliage in a robust state.

Peach Trees.—Those which have been cleared of their crops and which have borne heavily must not be neglected. If the borders are in need of moisture, thoroughly soak them with clear water and liquid manure alternately, so that every particle of the soil and roots is reached. Keep the foliage well syringed and free from red spider, and thus encourage it to remain on the trees as long as possible. Some of the shoots which will not be wanted for next year may be cut out to give light and air a chance to circulate freely all over the trees.

Melons.—Plants growing in ordinary hot-beds require every care and attention, keeping the foliage clean and the growths well thinned, and those bearing fruits stopped to encourage them to swell as rapidly as possible. Close early in the afternoon on bright days and husband ample moisture and heat. Fruits approaching maturity should be elevated well above the leaves to receive light and sunshine to encourage good flavour and colour, and the roots must be kept on the dry side.

Kitchen Garden.

Cucumbers.—Plants in houses and frames will need much attention, thinning, stopping and regulating of the shoots being essential items to maintain a long and continuous supply of fruits. Top-dress frequently with a sweet,, lumpy compost, and water freely in hot weather. Sow more seed for a late crop of a medium-sized and prolific variety.

Plants Under Glass.

Caladiums.—Keep these well supplied with moisture as long as they remain healthy and vigorous; but so soon as their beauty begins to fade, gradually reduce the water so as to partly dry them off, but do not stand the pots in too cool a position, otherwise the bulbs will rot, more especially the smaller kinds.

Gardenias will be growing freely, and some of the plants may require a larger pot. A little fresh, sweet soil will do much to maintain the leaves healthy and encourage the formation of strong buds.

Calceolarias.—Prick these off as they become large enough, and repot those which have been pricked off and potted at an earlier date.

H. Markham.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

Plant Houses.

Carnations.—The Malmaison section, as well as others usually grown in company with them, are now getting past their best; accordingly, thought must be directed to next year's supply of plants. Layering is the most convenient and sure method of doing this. Well prepare a piece of ground the size of an ordinary garden frame by incorporating leaf-mould and sand to give it the proper degree of texture. Select plants best suited for the purpose (those having side growths of considerable length are best), and after removing the pot plunge the ball of roots rather deeply and in such a manner that the shoots are easily brought to the soil all round. Clean the stems of foliage to several inches of their length, and with a sharp knife make an upward cut through a joint and about halfway through the stem. Fix firmly in the soil in such a manner that the slit or tongue is kept slightly open, which will facilitate the emission of roots.

Specimen Plants.—Some of the most robust and healthy of the plants now flowering may with much advantage be grown another year, handsome decorative subjects and quantities of bloom being thus produced. If in 6-inch pots at present, others considerably larger may be employed, using a rich loamy compost for potting; previous to doing this, clean thoroughly and immerse the roots for a time in a vessel of water should dryness be suspected. Pot firmly, stake prominent growths, and place in any convenient position where protection from heavy rains can be given.

Kitchen Garden.

Late Peas.—Though too late to sow seed outside with any prospect of success, some of the very dwarf varieties might profitably be tried in pits or frames until lately occupied with Turnips, Potatoes and Beans. Prepare the soil well and draw the drills rather further apart than the plants may be expected to grow in height. Soak the seed in water previous to sowing to assist and hasten germination.

Dwarf Beans may be treated in a similar way, but, being quicker in arriving at maturity than the former, successional sowings until August are advisable rather than too many at one time.

Celery.—The earliest-planted may now be cleared of side shoots, be well watered if necessary, and have a little soil drawn around the stems. Soot or lime used in moderation tends to keep away slugs and worms. If for exhibition, paper collars should be used to encircle the stems before the soil is added.

Turnips.—More seed should be sown to provide bulbs for winter use. As the Turnip fly is troublesome this year, frequent dustings of the young plants with burnt ash when damp is an almost sure preventive of attack.

Mushroom-beds.—Collect material for forming these and place it under cover, such as an open shed, where it may be turned occasionally until sufficient is got together to make up a bed. Avoid excess of heat and over-dryness; on the other hand, material frequently soaked with rain cannot prove satisfactory. Manure of hard-fed horses is by far the best, and for making beds under cover most of the litter may be removed, but for beds in the open this is not so important; furthermore, it is often difficult to get sufficient bulk in a reasonable time for the latter purpose unless the litter is retained. Under cover a bed from 15 inches to 18 inches in depth is ample, increasing this, however, as time goes on to maintain the necessary heat as the days shorten. Fresh spawn only should be used, and each brick may be broken into eight pieces, these being inserted when the heat of the bed is about 80° and shows signs of declining.

James Day.
(Gardener to the Earl of Galloway.)
Galloway House, Garlieston, Wigtownshire.

NEW PLANTS.

Spiræa Veitchii.—A shrubby species from China with long, arching branches studded with large axillary clusters of creamy white flowers. Shown by Messrs. Veitch and Sons, Limited, Chelsea. Award of merit.

Eremurus Sir Michael.—One of the bronze and yellow seedlings from E. Shelford, which in turn was a cross between E. Olgæ and E. Bungei. In the present novelty there is a delightful rose-coloured suffusion which in sunlight, mingling with the yellow and bronze, is seen to great advantage. All these hybrids are of the highest garden value, as much by reason of their late-flowering as their novel and exquisite colouring. Shown by Messrs. R. W. Wallace and Co., Colchester. Award of merit.

Nymphæa mooreana.—A greatly improved N. chromatella with flowers of a deeper yellow colour and of greater substance. It is perfectly hardy and has plain green leafage, thus rendering it quite distinct. Shown by Leopold de Rothschild, Esq., Gunnersbury House. Award of merit.

Rose Juliet (Hybrid Briar).—A perfectly unique novelty, and said to be the result of a cross between the yellow Briar and a Hybrid Perpetual. In the youthful stage the petals reveal a golden reverse and, then recurving, are heavily bordered and suffused with a clear and exquisite shade of salmon rose that is fascinating to a remarkable degree. The older flowers are of a paler hue with more of the pink shade, but one and all are inexpressibly charming and pleasing. Of great size and fulness, the variety is remarkable alike for its powerful fragrance and leather-like leafage; indeed, its like has never been seen before. Shown by Messrs. William Paul and Son, Waltham Cross. Award of merit.

Delphinium Nulli Secundus.—This exceptional novelty has nearly pure white flowers and a large and conspicuous black eye. The individual flowers are large and the spike well formed. Shown by G. Ferguson, Esq., Weybridge. Award of merit.

Sweet Pea Edna Unwin.—A very beautiful orange flower, which may well be described as a waved Evelyn Byatt. It is said to be quite fixed and does not burn in the sun. Shown by Mr. W. J. Unwin, Histon, Cambridgeshire. Award of merit.

All the above were shown before the Royal Horticultural Society on the 20th inst., when the awards were made.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* The Garden *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* Editor *of* The Garden, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* Publisher. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Judging Sweet Peas (*C. H. S.*).—The majority of judges of Sweet Peas follow the "Code of Judging" of the Royal Horticultural Society. Herein we find it laid down as follows: "Sweet Peas should be shown in lightly arranged bunches to display the individuality of the flowers. Stem long and stout, carrying three or more blooms; standard erect or gracefully hooded; wings closely enclosing the keel; free

from spotting or scorching. Points 6: Form and substance, 2; colour and freshness, 2; attractive setting up, 2." There must necessarily be variations from this, but it is a sound basis on which to proceed.

Delphiniums going wrong (*P.*).—If, as you say, the plants were all right at one time, there is something wrong with your method of growing them, but we are unable to divine the cause owing to the meagre information you supply. If you will tell us how long the plants have been planted and the class of soil in which they are growing—that is, light or heavy, clay or sand—we may be able to give you all the assistance you need. The clumps may require division or the crowns may have been eaten by slugs, or many other things may be against them that we know not of. What is the depth of the soil and how is it for drainage?

MISCELLANEOUS.

Vegetable Marrow plants not fruiting (*Marrow*).—Vegetable Marrows do best when left to grow unrestrained and in a natural way. We have no doubt that if you will exercise patience for a while longer you will be rewarded with abundant crops. The recent heavy rains we have had have encouraged over-abundant growth of foliage, to the detriment of the fertility of the plants; but this will be corrected once we have drier and warmer weather. Anyway, no good can be done by cutting or restraining the plant's growth.

Cauliflowers and Broccoli (*E. A.*).—Having planted Autumn Giant Cauliflowers, we advise yet a second planting of the same variety if you have later plants, as you may then, with an open autumn, have heads to cut up till Christmas. There is no better successional variety than Veitch's Self-Protecting. Following this should come Christmas White and Snow's Winter White, then the varieties you name, Early Penzance, Knight's Protecting, Covent Garden White, Wilcox's Late and Late Queen. Other good Broccoli are Model and Methven's June, but it is not possible to say just when these varieties will head in, as so much depends on the weather. With a fairly mild winter good white heads from a large planting of varieties may be had for several months; but if the winter be hard, plants may be killed wholesale, or, in any case, kept from heading in until so late as March. The latest varieties should head in during May and even into June.

Summer pruning cordon Apple trees (*W. S. C.*).—Scarcely any two practitioners agree as to the best system of summer pruning these trees, neither do they agree as to the primary object aimed at in the process. Some contend that it is possible to convert the basal buds of the shoots cut back from wood-buds to fruit-buds. This in our opinion is a fallacy; it does nothing of the sort. What it no doubt does is to strengthen and swell up the latent fruit-buds which lie at the base of the shoots, and which were formed the previous year. The end of July is a good time to cut back these side shoots, and in our opinion it is best to cut them back to within five leaves or buds of their base, and to cut the same shoots back in winter to within two buds of their base. If they are cut earlier than this there is a danger of the lower buds being forced into growth, a growth which could not possibly mature this year, and consequently would be of no use for fruit bearing. By the end of July this danger will have passed.

Names of plants—*M. Powell.*—1, Rhododendron ferrugineum (Rose des Alpes); 2, Helichrysum rosmarinifolium (Snow in Summer). The Rose petals had dropped. ——*R. E., Vortigern.*—1, Funkia, probably subcordata; 2, 12, 13 and 14, labels loose in box; 3, probably Rosa centifolia, petals had dropped; 4, Cistus villosus; 5, Funkia ovata; 6, Spiræa Ulmaria flore-pleno; 7, Rosa multiflora variety, petals had dropped; 8, Rose petals had dropped; 9, better specimen required; 10, Spiræa Aruncus; 11, S. palmata; 15, Veronica species; 16, Calluna vulgaris; 17, Elæagnus multiflora; 18, Berberis japonica; 19, Elæagnus pungens variety; 20, E. pungens.——*J. Kirkwood.*—Rosa moschata. —— *Miss B.*—Abel Carrière.——*T. S.*—1, Dr. Grill; 2, General Gallieni. —— *A. E. R.*—Myrianthes Renoncule.——*Rhagatt.*—The variety is Rosa microphylla rubra. It is a native of the Himalayan mountains and also of China.——*A. Warren Melhuish.*—Helianthemum vulgare (yellow) and Polygala vulgaris (blue).——*John Young.*—Lilium Martagon album and Senecio Smithii; cannot identify Rose.——*A. H. B.*—Antennaria dioica.——*A. L. Ford*—Melilotus officinalis and Corydalis lutea.——*Miss K. Ross.*—Periploca græca.——*G. R. Stout.*—1, Sparmannia africana; 2, Sidalcea candida; 3, Artemisia abrotanum; 4, Nepeta Mussinii; 5, Lysimachia vulgaris; 6, Lythrum Salicaria; 7, Lychnis Githago; 8, Lycopsis arvensis; 9, Stellaria graminea; 10, Achillea Millefolium.——*A. M. B.*—Souvenir de L. Viennot.——*Bewley.*—Bourbon Rose Mrs. Paul.——*Chloe.*—The pale pink variety is Tea Rambler; the crimson is Crimson Rambler; and the deep pink is Mrs. F. W. Flight. —— *J. H. C.*—1, Iris xiphioides (English Iris); 2, too far gone to recognise; 3, Iris sambucina; 4, Campanula persicifolia alba; 5, C. carpatica; 6, Crepis sibirica; 7, Lysimachia punctata; 8, Scutellaria altissima; 9, Calamintha grandiflora; 10, Brodiæa congesta; 11, Sidalcea malvæflora.——*P. Z.*——1, Certainly not Dean Hole, possibly Alice Grahame; 2, probably François Crousse, but flowers damaged; 3, Sweetheart; 4, St. George; 5, Victor Hugo; 6, flowers needed for identification; 7, Cerastium tomentosum; 8, Alyssum maritimum. We have named the Roses to the best of our ability. We cannot be certain, especially when rather overblown blooms are sent. If you send any more, kindly attach a fairly long piece of the growths. We advise you to send blooms to the grower and ask him to replace with correct kinds in autumn.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

THE fortnightly meeting held on July 20 was one of the finest of the season. Hardy flowering plants were numerous and good; Orchids, if not numerous, were of a select character; while the Roses from Waltham Cross, the superb Carnations from Shenley, the rich collection of Tomatoes from Reading and the unique collections of fruiting trees in pots, vegetables, salads and flowering plants from Chelsea, rendered the exhibition one of the most representative and instructive that could well be imagined.

ORCHID COMMITTEE.

Present: Mr. Harry J. Veitch (chairman), Messrs. James O'Brien, de B. Crawshay, W. Boxall, Gurney Wilson, G. F. Moore, A. Sander, W. Bolton, F. Menteith Ogilvie, J. Forster Acock, Walter Cobb, J. Cypher, Charles H. Curtis, W. H. Hatcher, H. G. Alexander, J. Charlesworth, Arthur Dye, H. Ballantine, H. A. Tracey, W. H. White, A. A. McBean, R. G. Thwaites and Sir Jeremiah Colman.

Messrs. F. Sander and Son, St. Albans, brought many interesting and beautiful kinds, notably Odontoglossum ardentissima Starlight, whose flowers were thickly spotted with violet on a pale mauve suffused ground. Cypripedium Lady Derby, Vanda cærulea (very fine), Lælio-Cattleya Ophir, Dendrobium dalhousieanum, with pale fawn-coloured flowers and crimson centre, and Odontoglossum crispum harryanum bruggeanum, with large, dark-coloured spots, were also noticed in a nice lot. Silver Flora medal.

F. Menteith Ogilvie, Esq., Oxford, received a silver Flora medal for a small group of choice things, which included Cypripedium Vipanii Shrubbery var. × C. philippense niveum, Odontoglossum crispum Madonna (white, with yellow base), and other charming and good kinds.

Mr. James H. Hill, Burgess Hill, Sussex, had a small group of Miltonias; while Messrs. William Bull and Sons, Chelsea, had several plants of Lælia xanthina × Cattleya Mossiæ.

Messrs. Stuart Low and Co., Enfield, had some well-flowered examples of Dendrobium thyrsiflorum, Vanda kimballiana, Cochlioda noetzliana, Oncidium pulvinatum, Odontoglossum Pescatorei, and the quaint Bulbophyllum godseffianum among many interesting and good kinds. Silver Flora medal.

Sir Jeremiah Colman, Gatton Park (gardener, Mr. Collier), had a most interesting lot of things, such as Nephelaphyllum pulchrum, Masdevallia muscosa, M. Chimæra, Bulbophyllum biflorum, B. cocoinum, Lælio-Cattleya Epicastra Gatton Park variety and Odontoglossum Astarte in a very pretty lot.

Messrs. Charlesworth and Co., Hayward's Heath, brought several good things. Dendrobium anosmum, Odontoglossum Eleanor, O. schleiperianum citrinum, O. Rolfeæ (several good plants in flower being displayed of this dark blotched kind, which has the reputation of being a good grower and a free bloomer), Sobralia macrantha alba magnifica, Miltonia vexillaria albiflorum, Vanda cærulea in charming variety, Lælio-Cattleya Celia and Sophro-Lælio Leda were all noted in this excellent lot. Silver Flora medal.

In a very delightful lot from Sir Trevor Lawrence, the lovely Vanda Miss Jacquin was noted, and for this a cultural commendation was granted. A similar award was extended to Habenaria rhodochilon, with orange flowers, of which a large number of plants were shown.

Odontioda Charlesworthii superba was well shown by Mr. W. Thompson, Stone, Staffs, for which a cultural commendation was awarded.

FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. George Bunyard (chairman), Messrs. J. Cheal, W. Bates, Alex. Dean, Edwin Beckett, E. Hobday, H. Parr, P. D. Tuckett, G. Reynolds, J. Jaques, G. Wythes, J. McIndoe, Owen Thomas, H. Somers Rivers, A. H. Pearson and John Harrison.

There were several meritorious exhibits before this committee, the Tomatoes, Peas, Peaches and Nectarines claiming attention at once.

The collection of Tomatoes from Messrs. Sutton and Sons, Reading, included some twenty or more distinct varieties and about 150 pot-grown examples. All the plants carried heavy crops of well-coloured fruits, most of them reaching to the soil. It is needless to say that the pick of the best commercial sorts were included in this fine lot of admirably grown plants, and from among them we selected Sutton's A 1 and Best of All, Winter Beauty, Chiswick Peach, Golden Queen, Eclipse, Golden Nugget (small and free), Peach Blow, Sunbeam (yellow, of medium size), Golden Perfection, Abundance, Magnum Bonum and others. The group was arranged with skill and judgment and commanded attention at once. Silver-gilt Banksian medal.

Messrs. Thomas Rivers, Sawbridgeworth, staged four Cherry trees in fruit, one of which (Black Hawk) was described as having been pot-grown and fruited for forty years. Silver Banksian medal.

Messrs. James Carter and Co., Holborn, displayed a very extensive collection of culinary Peas, including the best standard varieties in early and late sorts, also a considerable number of seedlings. Tomatoes, too, were very finely displayed by Messrs. Carter, the exhibit being of a very useful and instructive nature. Silver-gilt Banksian medal.

Messrs. James Veitch and Sons, Limited, Chelsea, had a remarkable collection of pot-grown fruits that not only were presented in perfect condition, but displayed masterly cultivation. The Peaches and Nectarines, represented by some three dozen examples, were perfectly shown, the former embracing Peregrine, Royal George, Duke of York, Duchess of Cornwall and others, while of Nectarines, Early Rivers', Lord Napier, Pineapple and Cardinal were shown. The trees, too, were in splendid condition, and, being heavily fruited throughout, excited the admiration of all. Figs, too, were seen in all the leading sorts, while the trained Gooseberries of three, four or five stems were simply loaded with the finest fruits. Of these alone some thirty-eight examples were staged. Forester, red; Langley Gage, perhaps the best-flavoured sort; Langley Beauty, very large; Broom Girl, green fruits; Gipsy Queen, a yellow green sort; and Keepsake, a very large, green-fruited variety, were among the best. For this superb gathering of fruits of many kinds no praise would be too great, and it was no surprise that so meritorious a group should receive the unanimous award of a gold medal, which it richly deserved. In addition to the above, and as once more demonstrating the resources of this firm, Messrs. Veitch were awarded a silver Knightian medal for a very comprehensive collection of Lettuces, Peas and other kitchen garden produce. The Peas included Telephone, International, Prodigy, Duke of York, Telegraph, Gradus, Duke of Albany, Acme, Alderman and others. Cauliflower The Pearl, Tomato Invicta, Carrots, Improved Cantaloupe Melons, French Beans, Mushrooms and the like tended to make the exhibit a very complete and representative one.

FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), Messrs. C. T. Druery, W. J. Bean, W. J. Barr, A. Turner, J. F. McLeod, James Hudson, J. Jennings, J. Green, Charles Dixon, Charles E. Pearson, Charles E. Shea, William Cuthbertson, W. P. Thomson, W. J. James, R. Hooper Pearson, E. H. Jenkins, H. B. May, J. T. Bennett-Poë, A. E. Bowles, R. W. Wallace, James Walker and George Gordon.

Mr. Amos Perry, Hardy Plant Farm, Enfield, arranged throughout the western end of the hall a sumptuous group of Delphiniums in many superb varieties and in very distinct colours. It was a feast of these indispensable border flowers very rarely seen, and the group attracted a good deal of attention. A few of the more conspicuous were Lize, azure blue, white eye; Candidat, purple blue; La France, sky blue with metallic shading; Jubilee, deep sky blue; Dragon Fly, royal blue; Queen Wilhelmina, sky blue, white eye, very charming; Danube, pale blue with metallic shading; and Geneva, sky blue, white eye. Of the lighter shades, Primrose and Beauty of Langport were notable and distinct. Other flowers shown by Mr. Perry included a choice lot of Lilies, among which we noted Lilium Krameri and a pure white form of it, which we have never before seen. L. giganteum, L. Martagon album, L. Parryi and others were also noted. Silver Flora medal.

Messrs. G. and A. Clark, Dover, set up a full-length table of hardy perennial cut flowers, on which a great variety of things, Irises, Crinums, Phloxes, Larkspurs, Gaillardias and others were seen to advantage. Silver Banksian medal.

Messrs. William Cuthbush and Sons, Highgate, brought a very telling lot of Malmaison and Perpetual-flowering Carnations, staging them in a most effective manner in bold vases and groups against a background of Palms and other foliage plants. Needless to say, the cream of both sections were well represented, Rose Pink Enchantress, White Perfection and Robert Craig being in excellent condition. Silver-gilt Banksian medal.

Messrs. A. Charlton and Sons, Tunbridge Wells, brought a capital exhibit of hardy cut flowers, such things as Iris Kæmpferi, Scabiosa caucasica, Alstrœmerias, Campanula lactiflora, English Irises and the like being well displayed.

Messrs. Wallace and Co, Colchester, brought a most effective group of Lilies, Iris Kæmpferi and Eremuri, the latter, largely represented by Shelford and Bungei, making a particularly fine display. Lilium auratum in variety and L. Orange Queen were also excellent. Silver Flora medal.

The Larkspurs from Messrs. Kelway, Langport, were very fine, and staged in vases attracted by reason of the individual beauty and merit. Among pale blue shades were Queen Alexandra, Mary Morison, Countess of Ilchester, Eton Boy and Star of Langport, the dark blues being seen in Lord Elgin, Gladstone, Sir Walter Scott, Lord Hawke and Alake. Gaillardias and Sweet Peas were also freely shown by Messrs. Kelway.

Messrs. L. R. Russell, Richmond, effectively grouped a large collection of Caladiums, the plants admirably grown and presented chiefly in large specimen examples.

Mr. G. Reuthe, Keston, Kent, brought a comprehensive display of seasonable hardy flowering plants, as Heucheras, Lilies, Irises, a large array of alpine and border Campanulas, among which the pretty C. excisa, C. pulloides, C. Hendersonii and C. Hostii alba were noticeable and good. Apart from these were many alpines of interest or merit, and such things invariably attract by reason of their variety. Silver Banksian medal.

Messrs. T. S. Ware, Limited, Feltham, staged in their usual effective way a large lot of alpines and other hardy flowers, employing Campanulas, Larkspurs, Dianthi and many others to advantage.

Messrs. H. J. Jones, Limited, Hither Green, Lewisham, displayed an admirably grown lot of herbaceous Phloxes in pots, in which Le Siècle, Millet (pink), Cyrano (deep lilac, white eye), Eugène Schott (rose, white starred eye), Embrasement (scarlet), Iris (deep violet) and many others were seen. The plants were well-flowered throughout, not more than 2½ feet or 3 feet high, and made a most effective group. Gaillardias, too, were very showy.

Messrs. H. B. May and Sons, Edmonton, brought a very fine exhibit of Ferns and flowering plants, the former including a large number of the beautiful series of plumose Nephrolepis, Platyceriums, Adiantums and others. The flowering plants included Vallotas, Acalypha Sanderi,

beautifully grown and well displaying its richly coloured tassel-like appendages, together with Ixoras, Abutilons and other things. Allamanda grandiflora (rich yellow) was also well shown. Silver-gilt Banksian medal.

Cecil F. Raphael, Esq., Shenley, Herts (gardener, Mr. A. Grubb), brought a magnificent exhibit of Malmaison Carnations in pots, in red, white, blush, pink and scarlet shades. Princess of Wales (pink) was a popular and prominent variety, and displayed its merits to advantage. King Oscar (scarlet) and Maggie Hodgson (crimson) were also excellent. The yellow border variety, Miss Audrey Campbell, was well seen in the background, where Ferns and other foliage plants also appeared. The group, which occupied a space of 300 square feet, was admirably arranged. Gold medal.

Messrs. Stuart Low and Co., Enfield, arranged a central group of Malmaison and other Carnations on the floor of the hall, this forming a pyramid. Many of the leading varieties of Carnations were employed, among which many seedlings were noted. Silver Flora medal.

Messrs. Lilley and Co., Guernsey, brought an admirable display of early Gladioli, arranging the pretty and decorative spikes in a very pleasing and artistic manner. Silver Banksian medal.

Mr. W. J. Unwin, Histon, Cambridge, brought a very fine lot of Sweet Peas, staging them in a most effective way, chiefly in branched vases, which gave lightness and elegance to the whole. A few notable sorts were A. J. Cook, Helen Lewis, Constance Oliver, Nora Unwin, Unwin's Maroon, Paradise Ivory, Princess Victoria, Gladys Burt and Clara Curtis. In another group baskets of the most charming of these were suspended and gave a pretty result. We cannot understand why this exhibit did not receive any recognition from the committee.

Messrs. R. and G. Cuthbert, Southgate, filled a table with Zonal and Ivy-leaved Pelargoniums, Astilbes, Hydrangeas and other plants in flower. Silver Banksian medal.

The very full table of Roses from Messrs. William Paul and Sons, Waltham Cross, was a leading feature of a good show, doing credit alike to a great Rose-growing firm and to the flower itself. The season of 1909 has not so far been remarkable for good Roses; hence we were the more pleased to see so fine and so representative a gathering of these flowers. The display was an exhibition in itself, and we regret that our space forbids a detailed report of so fine an exhibit. Some of the best, however, were Antoine Rivoire, Pharisaer, Betty (a delightful flower), Mrs. Aaron Ward (in apricot and cream), Le Progrès (orange yellow, most charming), Mme. Melanie Soupert, Lyon Rose, Hugo Roller, Lady Ashtown in pink, Richmond, Countess of Derby, Mme. Abel Chatenay, Frau Karl Druschki, Cynthia (a lovely flower in cream), Joseph Hill (very charming), Kaiserin Augusta Victoria (quite superb) and many more, giving a feast of the flower rarely seen. Silver-gilt Flora medal.

An unusual exhibit, reminding one of those of years ago, was that of succulents and Cactaceous plants from Messrs. Cannell and Sons, Swanley, who brought some 200 species and varieties of these interesting and remarkable plants. The vigour and health of the collection were alone worthy of remark, and as a representative gathering of these things is rarely seen at an exhibition it commanded a good deal of attention. Needless to say, in so comprehensive a group all the finest things were to be seen, and not a few rarities also, as, for example, Mesembryanthemum Bolussii, Senecio Haworthii, Cereus peruvianus monstrosus (The Rock of Ages), The Bishop's Hood (Astrophyton myriostigma), Maxillaria micromeris, Cotyledon edulis, Cereus sargentianus (which is said not to become bearded until it has passed its century), Opuntia robusta (a perfectly hardy sort), Pilocerus houlletianus (a very hirsute and rare kind which is only hairy at the summit), P. senilis (the Old Man Cactus), Euphorbia Caput-Medusæ and many more of equal interest or merit. Silver Flora medal.

Messrs. Carter Page and Co., London Wall, had quite a unique display of Sweet Peas, staging a very large collection in a most artistic and attractive manner. The collection was one of the most complete we have seen, all the leading sorts being staged in a liberal way. The exhibit extended throughout one of the long tables, and, being of double width, attracted a good deal of attention. Silver Flora medal.

Mr. James Douglas, Great Bookham, Surrey, brought a capital group of border Carnations, of which Cardinal (scarlet), Agnes Sorrel (crimson), Amy Robsart (white), Cupid (pink), R. Berkeley (scarlet), Hercules (maroon, very large) and Ellen Douglas (heliotrope) were the best. Elizabeth Schiffner (apricot and yellow) was also distinct. Mr. Douglas also displayed a few of the Malmaison varieties.

The Misses Hopkins, Shepperton, had a small exhibit of Sweet Williams.

Mr. W. Chaplin, Waltham Cross, had a delightful exhibit of Roses, in which Hugh Dickson, Mme. Ravary, Dean Hole, Lady Roberts, Earl of Warwick, Mme. A. Chatenay and Lady Ashtown were notable flowers.

Messrs. R. Harkness and Co., Hitchin, also brought a fine display of Roses—Hugh Dickson, Mrs. J. Lovatt, and Edu Meyer, a pretty salmony yellow shade. The latter should make a delightful bedding Rose. Mrs. W. J. Grant was also in excellent form.

Messrs. James Veitch and Sons, Limited, Chelsea, arranged a table with an excellent lot of flowering plants, of which Cannas in many varieties, Romneya Coulteri, Sollya Drummondii (a pretty blue bell-shaped flower) and Solanum Wendlandii (the latter particularly fine) were excellent. Lilium myriophyllum is a lovely form of L. Brownii, from the Tibetan frontier, the reddish buds contrasting well with the white rose-suffused segments which internally are much coloured with yellow. It is in every way a grand Lily and most distinct. Malmaison Carnations were also a feature in this very fine group, all the leading commercial sorts, including novelties, being displayed to advantage. Yaller Gal, Mrs. E. Hambro, Maggie Hodgson and Princess of Wales were among those noted. Border Carnations were also freely displayed by Messrs. Veitch. Silver Flora medal.

Messrs. J. Cheal and Sons, Crawley, had a capital exhibit of hardy perennials and Sweet Peas, each being displayed in many good varieties. Silver Banksian medal.

Messrs. James Carter and Co., Holborn, displayed a lovely lot of Sweet Peas over an archway, which attracted a good deal of attention. The colours of the flowers were admirably arranged and reflected a good deal of credit on the firm. Silver-gilt Banksian medal.

G. Ferguson, Esq., Weybridge, received a similar award for an admirable display of Larkspurs of the highest merit.

THE NATIONAL CARNATION SOCIETY.

THIS society, which has now been established for over thirty years, held a very successful show at the Royal Horticultural Hall on Wednesday, July 21, the only drawback being that in many of the leading classes there were only two competitors—Mr. J. Douglas and Mr. Blick, who was gardener to the late Martin Smith, Esq., and who has now started in business, Carnations being his speciality. It would be monotonous to give the names of winners of prizes in each class. At least twelve first prizes were taken by Mr. Douglas, and in some classes firsts were secured by Mr. Blick, who followed Mr. Douglas closely in other classes. Mr. Hayward Mathias came in well in some classes. Messrs. Phillips and Taylor and Mr. W. Sydenham were among the chief trade growers. First-class certificates were given for the following: T. E. Henwood, a pure white self (from Mr. J. Douglas); Libra, a fine yellow ground Picotee (from Mr. Hayward Mathias); and F. W. Goodfellow, a heavy-edged yellow ground Picotee (from Mr. C. Blick). The premier blooms were as follows: In bizarres or flakes Admiral Curzon, a beautifully marked white, red and crimson variety (Douglas). For Picotees Mr. Douglas took premier prize with Alcestes, a clear white with pink edge, and also a premier prize for Daffodil, a very fine yellow self.

In most of the vase classes there were from four to six exhibits. The varieties most worthy of note were Miss Willmott, rose; Daffodil, yellow; and Buttercup, another good yellow. In scarlets, Cardinal was one of the best. T. E. Henwood was decidedly the most useful white, though Eric Hambro was placed before it in the class for a vase of nine blooms. For the best yellow ground Picotee Mr. Blick secured first honours with J. Ruskin; Ophir was another good variety in the same class. Mr. Douglas took first for terra-cotta or buff colour with fine blooms of Benbow; for yellow ground fancies with Pasquin, buff, flaked heliotrope; and for any fancy variety, Lady Gay, white with red stripes, was the variety taking first prize. Cardinal was a most prominent scarlet variety. King Arthur, in the same class, was larger, but with the National Carnation Society perfect form takes precedence.

In the collection classes some good varieties were noted, among them being Mrs. Griffith Jones, Miss A. Sorrel, Mrs. R. Berkeley, Mrs. Guy Sebright, Hildegarde, Juno, Richness, H. Falkland, Ophir and many others; but it cannot be said that we have any great advance on the best-known standard varieties. There was an entire absence of pot plants, except in the non-competitive classes. The grand group staged by C. F. Raphael, Esq. (gardener, Mr. A. Grubb), the previous day remained; this consisted chiefly of the Malmaison varieties. Messrs. H. Low and Co.'s interesting group of new Malmaison varieties was an attraction. Of these Irene, C. O. Little, Sunset, Lady Mary Hope and Amber were promising varieties.

Messrs. Veitch and Sons had a good collection representing all types in well-grown pot plants. Mr. A. F. Dutton put up about fifty large vases of good border varieties. Here was further evidence that English varieties can be well shown on long stems without any artificial supports. Of the varieties noted, Trojan was a very fine white, Joban (cream), Irene Vaughan (cerise), Cupid (rose), Lady Oswald (yellow ground fancy) and the whole of the fifty varieties were of the best types. Messrs. Cutbush and Sons made a grand display, which included fine blooms of all the various sections. Mr. J. Williams, Ealing, filled a table with his rustic stands, which contained good blooms of Enchantress and foliage. The only table in the competitive class was well arranged. Here Enchantress was the variety used.

SUTTON ROSE SOCIETY.

THE twenty-eighth annual exhibition was held in the charming grounds attached to Manor Park House, Carshalton Road. These grounds, in addition to being central, are eminently suited to a function of this kind, and a better spot could not have been found in the confines of Sutton. It proved to be one of the most perfect days of the year, bright sunshine and genial breezes making a lengthy sojourn in the open air a delight.

The majority of the exhibits were staged in a huge marquee at the north end of the grounds, a small tent being reserved for the ladies' and general sections. This gave ample room for all the exhibits to be displayed, and for the first time in many years visitors to the show were able to see the blooms set out without crowding. In quality the Roses were as good as those shown at the National exhibition, and if the numbers were comparatively small, there was in several cases the keenest competition.

In the nurserymen's classes, Messrs. Harkness and Co. and Messrs. G. and H. W. Burch were conspicuous absentees. Messrs. Frank Cant and Co. won the Sutton Cup; their best blooms were Mildred Grant, Oberhofgärtner Terks, Mrs. Theodore Roosevelt, Dean Hole and Richmond. Messrs. D. Prior and Son were a good second, and conspicuous among their blooms was a Mrs. W. J. Grant, which took the silver medal presented by Mr. E. J. Holland, C.C., for the best bloom in the nurserymen's classes. Mildred Grant and Mme. Jules Gravereaux were also noteworthy blooms in this stand. Messrs. B. R. Cant and Sons were third. They were able to secure premier honours in the class for twenty-four distinct, however, their stand being easily first with some superb blooms, among which Mildred Grant, Lyon Rose and Mrs. J. Laing were prominent. Messrs. Prior, who were second, had a remarkably fine Mrs. W. J. Grant. Messrs. Frank Cant and Co. were third. In the class for twelve threes, Messrs. Prior were a good first. They showed some remarkably fine Caroline Testouts; W. J. Grant, Liberty and Dean Hole were also excellent blooms. Messrs. Frank Cant took premier honours in the class for eighteen blooms, repeating their performance of last year. Their box contained fine specimens of Mrs. E. Mawley and Lady Roberts. The class for twelve blooms of one variety produced some very level boxes, Messrs. Prior showing Mrs. J. Laing; Messrs. B. R. Cant, Dean Hole; and Messrs. F. Cant, Richmond, all of good colour and in splendid condition.

The open amateur classes were, as usual, productive of keen competition, although one missed such well-known exhibitors as the Rev. F. R. Burnside and Messrs. T. B. Gabriel and A. Tate. Chief interest centred round the class for twelve distinct, which carries with it the Vice-President's Cup. Last year this was secured by Mr. E. J. Holland, and this year he was able to win it a second time with a beautiful box of twelve young flowers. One of these, a magnificent Mrs. Theodore Roosevelt, took the National Rose Society's silver medal for the best Hybrid Tea in the amateur classes, an honour which fell to Mr. Holland last year. Other notable blooms in the box were Mildred Grant, Dean Hole, Mrs. John Laing and Mme. Melanie Soupert. Mr. Eversfield was second; he had a fine collection, and although the flowers were a little older, the judges had difficulty in separating the boxes. His best bloom was Mme. Melanie Soupert, although a fine Hugh Dickson ran it close. In the class for twenty-four blooms the tables were turned, Mr. Eversfield being first with a good lot of blooms, bright and clean. Mr. Holland's box contained a fine Lyon Rose. He won the next class easily, his best trebles being Dean Hole and Lady Ashtown. Mr. Eversfield was second with rather older flowers, Hugh Dickson being his best treble.

Dr. Lamplough won the first class in Division C with a good level lot, and he also took premier place with four trebles, distinct, showing some high-class flowers—Bessie Brown, Mrs. J. Laing, Frau Karl Druschki and Mme. Jules Gravereaux.

In Division D, the Grimson Challenge Cup was won by Mr. Vivian Rolt, who also secured it last year. A very level box it was, but a William Shean was, perhaps, the best of the six. The other prizes went to new-comers. In the class for six blooms of one variety, Mr. V. Rolt was also first; his exhibit was Mildred Grant. Mr. Beck took second prize with Caroline Testout, and Mr. Nightingale third with Helen Keller.

The Alexander Challenge Cup, for nine distinct blooms (Division E), was won by Mr. A. E. Farnden; his box of excellent blooms contained a well-developed Caroline Testout, Frau Karl Druschki and Mrs. J. Laing. Mr. C. W. Edwards was second with a good box; the hon. secretary of the society (Mr. Dixon) a good third, his exhibit containing a particularly large Mildred Grant. The Harkness Plate was won by Mr. Dixon, in whose box Mme. Melanie Soupert was again in evidence, also a grand Dean Hole. Mr. Jackson's box, which was second, contained a particularly good Horace Vernet.

There was keen competition in the local classes, and particularly for the Ladies' Cup, which has been competed for nine years and still remains in competition. The box with which Mr. C. W. Edwards won it was an excellent one, with not a bad bloom in it. Mr. A. G. Morrish was a close second, and his box contained one bloom which attracted much attention during the day—a Mrs. John Laing. This was awarded the National Rose Society's medal for the best bloom in Divisions E and F. Mr. Dixon was a strong competitor in the class, and the exhibits generally were most creditable to local exhibitors. Mr. Edwards was again first in the next class with six good specimens of Caroline Testout, Mr. Jackson being second with Lady Ashtown, and Mr. Morrish third with smaller but younger specimens of the same flower. Mr. Gann won the class for six distinct blooms easily, a William Shean in his box winning the National Rose Society's silver medal for the best bloom in that and the succeeding two classes. The same grower secured first prize for six blooms in four varieties.

Class 23, open to those who had not previously taken a prize at the show, was a good innovation, and Messrs. Keith Jones, Jay and Learman were deserving of the prizes awarded.

The cottagers' classes were not strongly represented, but the exhibits staged were good. A bloom of Dean Hole in the vase of three, which gained first prize for Mr. Matthews, secured the silver medal given by Mr. W. Houle for the best bloom in the cottagers' classes.

The ladies' section was very attractive. Table decorations were not numerous, but those shown reflected much credit on the competitors, and Mrs. A. Robinson was particularly tasteful in her work. Sweet Peas were very backward owing to the weather, and the general section suffered in consequence. What this section lacked in quantity was made up in quality, Gloxinias and Begonias being superb.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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Offices: 20, Tavistock Street, Covent Garden, W.C.

"THE GARDEN" HORTICULTURAL SHOW, 1909.

WHEN the Proprietors of The Garden conceived and carried out the bold and novel idea of holding a flower show in London, the exhibitors at which were only to be readers of The Garden, there were many friends who doubted the wisdom of the step taken, fearing the project might not prove successful. As it turned out, the wisdom of the initiative was abundantly justified, for the success of the first show was most encouraging.

The second show was held in the Horticultural Hall on Wednesday, the 28th ult., and readers of The Garden will be proud and glad to know that their show this year far and away surpassed in excellence and interest that of last year. The immense hall was completely filled with magnificent collections of flowers, fruit and vegetables, collections which would have done credit to any show in the land. The exhibits were so numerous that the annexes of the hall, the council chamber, and one of the committee-rooms had to be filled. Exhibits were received from as far North as Aberdeen, and from Plymouth in the South, and some even came from Ireland, over 1,500 distinct exhibits being entered by 229 exhibitors.

The exhibits were divided into six sections. That devoted to Sweet Peas formed a delightful exhibition in itself, second only in importance and interest to the show held by the National Sweet Pea Society in the same hall the previous week. Those readers of The Garden who had not the pleasure of being present can picture to themselves the splendid effect produced by this section of the show alone, a slight idea of its beauty being shown in an illustration on another page.

The Garden is specially to be congratulated on the extent and excellence of the collections and bunches of hardy border flowers exhibited. Old readers of the paper will know the valiant and persistent fight made in The Garden for the extended growth and use of these plants in garden decoration in preference to the half-hardy and tender plants then so universally used. What a change has come over our gardens in this respect since then! Hardy flowers to-day are the most popular of all flowers, and every conceivable species and variety in season were to be seen at this show. The section for annual flowers brought forth some interesting and beautiful exhibits, showing in a practical form how a garden may be planted and made bright and beautiful, even by the poorest, at a cost of a shilling or two.

Roses numbered about 1,500 blooms, several of our leading growers exhibiting. This has been a singularly unfortunate Rose season on account of bad weather; nevertheless, this section proved most attractive, more than filling one of the stages the whole length of the hall, and among the blooms were many of the highest excellence. I should like to see the Carnation section strengthened by the offer of better prizes next year, if possible. The show is held at a time when the Carnation is at its best. This flower is now almost as popular as the Rose, is quite as hardy, and is within the reach of all. After saying this it must not be thought that this flower was not well represented. There were several splendid exhibits, the flowers in many cases showing the highest possible form of culture.

Table decorations, like the Sweet Peas, formed an exhibition in themselves, over fifty tables being on view. It is easier to imagine than to describe the delightful, artistic and beautiful effect produced by them, arranged as they were in three rows, side by side, the whole length of the hall. All were beautiful; but some examples were perfection in the simplicity and beauty of the disposition of the flowers as well as in the harmony and colouring of the blooms used, the Sweet Pea greatly predominating. The fruit classes, with the exception of that provided for nine kinds of fruit, were composed of outdoor hardy fruit, and in the absence of large sorts, such as Apples and Pears (it is too early for them), this section did not present an overbold appearance, and was chiefly confined to such useful fruits as Gooseberries, Currants, Raspberries, Loganberries, Strawberries, &c., many of the collections and dishes showing the highest standard of culture.

In the estimation of many, the most important and notable section of the show was that devoted to vegetables. The whole of the large council chamber, some of the annexes and the committee-room had to be requisitioned to accommodate these exhibits. There were upwards of twenty collections in the various classes, and endless smaller exhibits and single dishes. Some of the more important collections were composed of splendid examples of vegetables now in season.

I congratulate the Proprietors on the great success of their second show. This success, I think, is a practical proof of the hold The Garden has upon its readers, and is also a proof of the excellence and value of the teaching emanating from its pages week by week on every aspect of practical horticulture. Too little importance is attached to the service horticultural journalism in England has rendered in teaching, fostering and bringing the art of gardening to the perfection and popularity it stands to-day. Looked

at from many points of view, a beautiful exhibition such as this was is calculated to teach many and valuable lessons, and I hope it may be long continued and that other gardening journals may be induced to follow the example set. We cannot have too many of such exhibitions. I was much pleased and impressed by the zeal, earnestness and enthusiasm shown by all the exhibitors in the staging of their exhibits, each one seemingly putting up his or her own with as much care and pride as if their very life afterwards depended on the result. OWEN THOMAS.

PRIZES FOR READERS.

JUNE COMPETITION—AWARDS.

IN this competition prizes were offered for the best essays on "The principal insect friends and foes of the garden, and the best means of exterminating the latter." Owing to the large number of essays sent in, and the difficulty in judging them, we have not been able to publish the names of the prize-winners earlier. The first prize essay we hope to publish next week. The awards are as follow:

First prize of four guineas to Mr. F. Lansdell, Desford, Leicester.

Second prize of two guineas to Mr. G. H. Webster, Oak Cottage, Woolton, Liverpool.

Third prize of one guinea to Mr. F. G. L. Moir, Midhurst, Glossop Road, Sanderstead, Surrey.

Fourth prize of half-a-guinea to Mr. S. N. Lockington, Clarendon Road, Ashford, Middlesex.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

August 11.—Bishop's Stortford Horticultural Society's Exhibition.

August 18.—Shrewsbury Horticultural Society's Exhibition (two days).

The Veitch Portrait Fund.—A large number of subscriptions to the fund arranged for the portrait of Mr. Harry J. Veitch, V.M.H., have been received, and it is proposed to hang this portrait in the Royal Horticultural Society's building at Vincent Square, Westminster. It is suggested that a replica of the portrait be presented to Mrs. Veitch and a photogravure of it to every subscriber of £1 1s. and upwards. The list of subscribers will be definitely closed on Saturday, August 14.

Effects of the winter on trees and shrubs at Kew.—The Kew Bulletin No. 6 contains a most instructive and useful article by Mr. W. J. Bean on the effects of the winter on the trees and shrubs at Kew. Many of the new or rare Chinese shrubs came through the winter unharmed, among these being Davidia involucrata, Ailanthus Vilmorinii, Liriodendron chinensis, Eucommia ulmoides (a plant that may prove useful as a source for rubber), Berberis Wilsonæ, Cotoneaster adpressa, Viburnum Carlesii, V. rhytidophyllum, Rosa Hugonis, Schizophragma integrifolia and Sophora viciifolia.

The Essex County Laboratories, Chelmsford.—A movement is on foot to establish an Old Students' Club at the above-named laboratories, and we understand a journal will be published each month. We have had an opportunity of glancing through an advance copy of the first number of this journal, and find it full of useful and interesting notes. Among others, the articles on Nature-study Training for Teachers, Prevention of Potato Disease, the Effect of Potash on Beetroot, Names and Enlarged Illustrations of Weeds, Seasonable Work in the Fruit Garden and Injurious Insects are of particular interest to those whose duties frequently take them in the garden. The illustrations are exceedingly well done, and we wish this new venture every success.

Reading Gardeners' Annual Excursion.—The Reading Gardeners' Association is again to be congratulated on bringing to a most successful issue another annual excursion on Thursday, July 15, when by kind permission of Lord and Lady Northcliffe, Sutton Place, their delightful and historic place near Guildford, was visited. On arriving at Sutton Place they were met by Lord Northcliffe's resident agent, Mr. Kay, and the head-gardener, Mr. Goatley. A tour of the extensive and beautiful gardens at once commenced, the visitors being first taken through a portion of the experimental farm, which their fellow-member, Mr. Charles Foster, recently inaugurated for Lord Northcliffe, then into the kitchen and walled gardens, everything seen being in a perfect degree of cultivation. The lawns and pleasure grounds surrounding the mansion were next visited. Luncheon, generously provided by Lord and Lady Northcliffe, was taken at 1.30 p.m. Mr. Kay presided, and was supported by Mr. Alderman Parfitt, Mr. Leonard Sutton (vice-president, who arrived by motor), Mr. W. Pole Routh, Mr. J. Goatley, &c. The company were then conducted by Mr. Goatley to (from a professional point of view) the most charming feature of Sutton Place, viz., the glorious and extensive wild garden, where, note-book in hand, many of the members were content to pass the remainder of the day.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Late-sown Peas rotting in the soil.—I have during the last few years found that late-sown garden Peas have failed, the seeds rotting in the soil. I put some in on July 3, and only very few show signs of life. Peas sown earlier, but otherwise under the same conditions, do very well. I shall be very interested to know if other readers of THE GARDEN have had similar experiences, and to hear what they think of it.—WEST DORSET.

An effective pergola at Cheltenham.—So many people admire my pergola here that I venture to send you a photograph of it as it is now and another view showing the plan of it as it was four years ago. The Roses shown are chiefly Climbing Testout, Mrs. Cox, A. Stella Gray, Teplitz, R. Henriette, &c. It is to me a wonderful instance of less than five years' growth in a garden which a few months previously was practically a builder's yard covered with builder's plant.—(Rev.) H. E. HODSON, *The Moors, Churchdown, Cheltenham.*

How to burn ballast.—Can you or any of your readers tell me how to burn ballast black and not red, *i.e.*, not to burn it hard? I want it for digging in to lighten heavy clay for Roses. I get my idea from the Rev. Foster-Melliar's "Book of the Rose" and other well-known authorities, the object being, as they say, to char the clay black and not burn it red, and so not take all the manurial value out of the clay and yet, at the same time, make it friable enough to mix well with the soil. I know, of course, how to burn ballast in the ordinary way. —GILBERT C. OAKLEY.

An interesting Rose walk.—On the high land which lies to the west of the district of Purley, at the mouth of the Caterham valley, a gentleman desirous of converting his estate into a residential district laid out broad, well-kerbed roads. On one part, and about half a mile in length, is what is known as the Rose Walk. It margins or consists of a very broad road, fenced on each side by wire-netting some 5 feet in height, and within each fence is a raised grass bank about 2½ feet in height and 2 feet across the tops. This is kept well. Now within these grass banks are borders some 8 feet in width, and almost continuously throughout planted with dwarf bush and climbing Roses, the latter coming at the back. As the lane behind is offered for building sites, the few breaks in the Rose border are mere roadways into these sites. The position is a very elevated one, and enjoys a glorious atmosphere. The walk presents one of the most interesting and beautiful Rose displays absolutely public to be found in the kingdom.

Grapes at Wisley.—That interest in Grapes is far from being dead is well evidenced in the number of visitors just now to Wisley Gardens, where the Royal Horticultural Society has again this year one of the most useful and instructive trials of Grapes to be found probably in the world. Putting aside the outdoor vineyard, which, during such a season as the present, cannot be a success, but confining one's interest to the large span vinery, which contains forty Vines all diversely named and in form, there is ample food for study. There in this one house, planted in similar soil, similarly trained and all subject to the same temperature, are Grape Vines of the highest flavour producing fruit, such as the Frontignans, Muscats, Hamburghs and others down to Alicantes and Lady Downes, yet all doing wonderfully well and fruiting superbly. The bad-setting Cannon Hall Muscat there sets freely, due, perhaps, to the presence of plenty of free pollen-bearers close by. In two or three weeks this collection will indeed be well worth a visit.

The proposed International Horticultural Exhibition.—The suggestion that a great horticultural exhibition be organised in London in the year 1911 cannot fail to arouse the greatest interest. Of course, so great an undertaking will have to be thoroughly faced in all its bearings, and among other things to ensure its complete success the services of the Press of this country, and especially that of London, will have to be fully utilised. When the previous International Exhibition was held in 1866, fixed originally for one week only, that first week showed a comparative loss; but with the aid of exhibitors generally it was agreed to continue it a second week, and then it became a great financial success. It took one week to make the public familiar with its existence. In 1911 the Press should be used to its utmost capacity to make the show fully known before it is opened. The matter will then doubtless receive ample attention. An International Exhibition now should excel that of 1866 some 200 per cent., for horticulture has made enormous strides during the past forty-three years.—D.

Strawberries in 1909.—The present season has been a most excellent one for testing the cropping qualities of the many varieties of Strawberries now in commerce. In these gardens, where we have a heavy, retentive soil, and an altitude of 500 feet above sea-level, all varieties under cultivation have carried huge crops. Fillbasket, although not so early by ten days as Royal Sovereign, has exceeded this useful variety, some of the plants carrying fifty sprays and over of fruit. Laxton's Reward has given us the finest fruits, many measuring 7 inches and 8 inches in circumference. President, which is a great favourite here, and follows closely Royal Sovereign, has given a splendid account of itself, both in quantity and quality, while Givon's Late, to my mind the best of late varieties, looks like giving us first-class fruits for some time to come. Foreseeing the heavy crop and fearing the weather, I was tempted to give a liberal dressing of patent manure, afterwards earthing-up the plants. Needless to say, the manuring has paid for itself, and the latter treatment, although not generally adopted, is to be highly recommended. The replacing of the earth from the middle of the rows to the plants makes an excellent mulch and gives more air space, which is very necessary in so sunless a season as the present.—G. BURROWS, *Shendish Gardens, Hemel Hempstead.*

THE DELPHINIUM.

A NOBLE flower is the Delphinium, or perennial Larkspur. It has dignity of growth, Acanthus-like foliage of many shades of green, and a bewildering variety of blue shades of colour. And is not blue a colour that appeals strongly to those who wish to create beautiful effects in the garden? There is the blue of the Lobelia, the blue of the Anchusa, and the blue of the Phacelia, but not the gradations of shades that the modern Delphinium presents, from the flower that seems as if a bit of the summer sky had dropped upon the slender stems to those kinds with lurid purple and dull rose centres—intense, mystifying almost, and splendid.

These thoughts occurred when in Messrs. Kelway's nursery at Langport a few days ago, and one may mention in passing, as other notes will reveal, that this is not a nursery of a few things, but represents horticulture in the broadest sense. The Delphinium has been selected on this occasion for the reason that its sheaves of flowers give colour wherever the plants are placed. There is a nice sapphire blue in front of the shrubbery, groups in the border, and a misty forest of spikes that is never wearisome. We owe a debt of lasting gratitude to Messrs. Kelway for giving so bountiful a selection of this stately perennial, which may be grouped in many tasteful ways with shrubby plants—of which we may regard the Spiræas as a type—among evergreen shrubs to break up the surface of monotonous green leaves, and massed together in the border. As we have mentioned on previous occasions, it is always more satisfactory to choose the varieties when they are in flower; descriptions seldom convey to the mind the true beauty of the flower.

With regard to the cultivation of the Delphinium, this, as Messrs. Kelway point out in their excellent "Manual of Horticulture," is very simple and the results out of all proportion to the slight amount of care necessary. They thrive in almost any position, and may be planted at any time of the year, provided that in summer the plants are not too forward and that they are well watered in dry weather; September, October, February, March and April are, perhaps, the best months for planting. A rich friable loam will suit them well, but any soil, even hot and sandy, if well watered and manured, will give excellent results. Dig deeply—trenching is better—add plenty of well-rotted manure and plant about 2½ feet to 4 feet apart. Placed in lines as a background to a border, or in groups of, say, three plants at intervals in a border, the effect of the Delphinium is magnificent. A lane or avenue of Delphiniums ornamenting a drive or straight walk is very beautiful.

They look well in beds also, arranged the same distance apart each way. They are superb when grown in masses or large groups of separate colours, and may be associated with shrubs with great advantage, succeeding well in shrubberies owing to their robustness. A succession of flowers may be expected from spring to early autumn, especially if the soil is well prepared and not allowed to get too dry and the spikes which have done flowering early cut down to the ground; fresh growth will then be produced, which will give further blossom. Handsome spikes of bloom have appeared at Langport in the latter days of November. Copious watering in summer will be attended by increased size in spike and flower; in fact, in seasons of prolonged drought and on some soils, water is absolutely a necessity if the varieties are to exhibit themselves in their true size and beauty of flower and spike. Top-dressing is greatly recommended on certain soils instead of the bare surface of the ground being left exposed to the sun. Some of the neater dwarf alpine and other small hardy plants may be utilised to plant between and around the Delphiniums. Coal-ashes strewn over the crowns will protect the plants from slugs through winter and spring. This is the culture of the Delphinium in a nutshell.

The varieties are almost legion in number, so much so that it is difficult to make a selection without leaving out some of rich beauty and distinctness. Christine Kelway, a lovely sky blue flower, single, reminds one of Belladonna, but it is stronger and freer. This should displace the older form, and a group of it is as fair a picture as can be seen in the late summer days and early autumn. There is a fascination about these delicate tints; we have nothing so fair in the world of flowers. Huist Beauty, deep blue, with a purplish edge and white centre, may be detected in a throng of its fellows; and others, all of soft or rich colours, that may be noted are Kelway's Blue, Knight of Langport, Langport Blue, Summer Sky, Zinfandel, Britannia (a flower as rich as the Gentian in colour), Constitution, Edward VII., King of Delphiniums (a well-named hybrid, gentian blue and a warm plum shade), Queen Alexandra, Sir George Newnes, True Blue (a delightfully pure blue) and Persimmon, (a Delphinium to group freely, the flower single, with a cylindrical spike lined with pale bloom petals that surpass in delicacy of shade even those of Belladonna); and then there are the exquisite white Delphiniums, for the raising of which the warmest thanks are due to Messrs. Kelway. The white Delphiniums now form a distinct and beautiful class, and Phyllis Kelway, Ivory Queen, Beauty of Langport, Primrose and Princess of Wales are either white or softest primrose.

The Delphiniums we have mentioned are merely a few that seemed the most conspicuous in a wonderful array of hybrids; there are others of equal distinction, but to do full justice to the beautiful hybrids here would require something more than a treatise.

TREES AND SHRUBS.

SOME GOOD WHITE-FLOWERING SHRUBS.

FLOWERING shrubs are among the most beautiful objects which adorn our gardens, and the sight of their flower-laden boughs gives pleasure to everyone. So many have the merit of excellence in being free-flowering and easy to grow that amateurs may often have some difficulty in making a selection which will meet their own requirements, particularly so if the space is limited. In making a short selection of six white-flowered, deciduous shrubs, I have chiefly in mind the requirements of beginners, who, if they once learn to appreciate the floral beauty of a few shrubs, will experiment with them in various positions and so extend their collection.

The best and earliest Spiræa to flower is S. arguta. This shrub seldom exceeds 4 feet in height, and is often as much through. It forms a thicket of slender, twiggy, nut brown branches crowded with buds, from which the flowers are produced in the form of small buttons arranged in bunches, which clothe the entire length of the branches; it flowers during April.

The white form of Cydonia Maulei is an excellent shrub requiring very little space when grown in the open. The flowers come freely on small plants, and these are suggestive of well-expanded Apple blossom, the stamens in the centre of the flowers making a very pretty effect.

Cerasus Avium multiplex is the double white form of the common Gean, and is most effective as a standard tree on the lawn; it can also be grown as a bush, and where space is limited this form will be most suitable, as it can then be used as a centre for flower-beds or as a specimen on the grass. This plant is typical of a group which includes Cherry, Plum, Peach, Apple and Pear, among which occur the freest and richest-coloured of spring-flowering shrubs.

The best Snowball Tree for the open is Viburnum plicatum, a Japanese species having all the flowers sterile and collected into heads in the form of miniature snowballs. The flowers are borne upon the upper side of the branches, generally in pairs, and when established specimens are in flower it is difficult to detect the foliage among the quantity of flowers which literally cover the trees. In autumn the leaves change to various tints of orange, red and yellow.

The Mock Oranges are noted among shrubs for their fragrant flowers. Philadelphus grandiflorus has very large white flowers, richly fragrant. It requires a large piece of ground to do itself justice, and, failing this, one of the dwarf hybrid Mock Oranges would give greater satisfaction. The variety known as Gerbe de Neige is much dwarfer, with flowers of the same purity and fragrance; or purpurea maculata would be equally suitable. In this variety the base of each petal is stained wine colour. These Philadelphuses are beautiful in masses, and as their habit is dwarf they require very little space to grow them to give the best effect.

The last white-flowered shrub I intend to name is the Syringa of botany, and known in gardens as the Lilac. Of many new varieties which have recently come to our gardens the best include Mme. Lemoine and Mme. Abel Chatenay, having pure white double flowers; Mme. Casimir-Perier, cream, double; and Marie Legraye, single white. All of these are justly admired for their large blooms and enormous flower-heads, yet none of them equals in fragrance the vulgaris grandiflora of gardens, this being a form of the wild Lilac which produces individual flowers of great purity and substance, richly scented and altogether superior to the ordinary Lilac.

Walmsgate Gardens. THOMAS SMITH.

BEECH DISEASE AND ITS TREATMENT.

[*In answer to a Correspondent.*]

THE disease to which your correspondent draws attention is caused by a scale insect known as Cryptococcus fagi, or the Felted Beech Coccus. It is a very small insect, scarcely discernible to the naked eye, but its presence is very conspicuous by reason of the white waxy substance which exudes from its body. Two stages in its life-history are known—the immature insects which may, with the aid of a lens, be detected running about the trunks of trees in summer, and the mature insects which do not move. Reproduction is very rapid during summer, but the insects appear to be more or less dormant during late autumn, winter and early spring. Male insects have not been detected and mature insects are parthenogenetic. These parthenogenetic females are yellowish in colour and rounded, with flattened surfaces. Near the head they have a sucking apparatus by which they obtain sustenance from the tree. The young move about fairly rapidly and quickly spread the disease. Some are content to stay near the parents, and others select new quarters in cracks and crevices in the bark. They, like the parents, quickly cover themselves with wax, which acts as a protection against rain. The continued reproduction of the insects and the fact of many taking up their abode with the parents causes, in course of time, a thick, white, felty mass which, in some instances, completely covers the trunks of the trees.

Very little is known as to the direct way in which the trees are injured, whether the insects are able to extract the sap from the bark without any previous preparation, or whether they are able to set up a ferment which has the effect of softening a minute patch of bark. The action of the disease is also curious, for, while it has been known to exist in some places for upwards of twenty years, it was practically stationary until three or four years ago, and is now spreading rapidly. Some trees, on the other hand, that did not show a sign of the disease until four or

five years ago are now practically white all over. Badly affected trees sometimes show very little sign of ill-health; others, again, quickly become poor and yellow about the tops, and patches of bark fall off, to be followed shortly by the death of the trees.

In some Continental countries this disease has caused considerable anxiety for a long while, but in England it is only within the last few years that people have begun to pay it any real attention, and even now many owners of trees appear to be very apathetic over it, while others fully realise the seriousness of the situation. While, however, one person is trying to stamp the disease out on his estate and his neighbour is allowing it to increase, very little can be done to effect a cure, for the disease is doubtless carried about by various agencies, such as wind, birds, squirrels and other things. It is quite likely that squirrels are largely responsible for the spread of the disease by getting the waxy particles containing insects among their fur.

Several methods have been adopted for dealing with the pest. One which was highly recommended a short time ago was scrubbing the trunks with an insecticide composed of soft soap, paraffin and water. This, however, cannot be considered a practical solution of the difficulty, for, while it may do well enough for a few ornamental trees, it is too expensive an operation to practise on a large scale. Spraying appears to be the most practicable way of dealing with the pest, and this ought to be done in summer with a paraffin wash or in early autumn, just as the leaves are commencing to fall, with a caustic wash. The former wash may be made up of 1lb. of soft soap, 12 pints of paraffin and 20 gallons of soft or warm water. The soap should be dissolved in a little hot water and the paraffin stirred into it to form a creamy liquid; this should then be introduced into the clear water by means of a fine spray. Mix thoroughly and apply as a wash to trunks and branches through a powerful spraying-machine. The caustic wash is made up of the same quantities of paraffin, soft soap and water, with the addition of 4lb. of caustic soda (98 per cent.). This is by far the most effective wash, but must be used with care. The person using the wash should select a calm day for its application and use indiarubber gloves. The cost of spraying a tree is about one-twentieth that of scrubbing. It may be necessary to repeat the spraying the following year, particularly in bad cases and where the trunks are very rough. During spraying be careful to thoroughly wet all parts of the bark, both above and beneath the branches and the trunk. Weaker solutions of soft soap and paraffin have been tried, but have been found ineffective, especially where the disease had obtained a firm hold and where the fissures of the bark were deep. These strong washes, and even stronger ones than those recommended, have not caused injury to the trees; but it must be borne in mind that the caustic wash cannot be used before the leaves begin to fall, or it will damage them. Although the caustic wash may be used throughout winter, autumn is a better time, as the insects are then more active. The great point to bear in mind is that the wash has to be powerful enough to penetrate the waxy covering of the insects, or it will prove ineffective. A combined effort among the proprietors of estates in a particular district ought to have the effect of considerably lessening the disease, if not quite eradicating it. The theory that the disease is brought about by close planting does not hold good, for isolated trees are sometimes quite as bad as those planted closely in woods. W. D.

SUMMER-HOUSE AND PERGOLA AS ERECTED IN THE REV. H. E. HODSON'S GARDEN. (*See page 382.*)

THE GREENHOUSE.

FREESIAS AND THEIR CULTURE.

WELL-GROWN pots of Freesias from Christmas onwards are not very difficult to procure if a few cultural details are carried out. These notes appear now because, generally speaking, one of the chief causes of failure can so often be traced to too late potting, and also because, for Christmas bloom, extra early potting is essential. For this last purpose the end of July or the first half of August is none too soon, while under no circumstances should it be delayed beyond the end of September. The broad rule is the "early gardener gets the flowers." Naturally, the largest and firmest bulbs give the best results for Christmas and January blooming; in fact, unless such can be procured I would not recommend anyone to try to get flowers then; the blooms are sure to be small and the inflorescence poor and disappointing. With small bulbs, be content to get blooms in February and March.

Good soil to use for potting consists of light loam, leaf-soil, well-decayed cow-manure and some coarse sand sufficient to keep the whole open and porous. Six large-sized bulbs may be planted in a 5-inch pot, or nine or ten in a 6-inch pot. If the bulbs are small, two or three more may be used in either case.

After potting, the pots should be placed in a cold frame, and very little, if any, water must be given until the new growths appear, and even then it must be given sparingly until the plants are removed to warmer quarters. The frames should be shaded and kept rather close for the first ten days or fortnight, but directly the young shoots appear the shading must be removed and the plants exposed to as much fresh air as possible. The lights are then only placed on the frame when the weather is wet or when slight frosts are expected at night. If the sun is very bright and powerful, a little shading may be placed over the plants during the hottest part of the day.

When the weather becomes colder, and before the frosts become so severe that the protection of a frame is insufficient to ward them off, the pots should be removed to a cool greenhouse, where, if this is the only heated structure available, part may be put in the warmest end and part in the coolest for succession. In either case they must have plenty of air. If there is a cool house and also a warmer one, successional batches may be moved from one to the other.

Early staking, before the growths have become bent and untidy, is very necessary. Each plant should have a separate support. If, however, this is impossible, I have seen very good pots of bloom where the thin, twiggy ends of Birch or Hazel boughs have been inserted between the growths and some raffia run round the whole, and then the plants left to grow as they please.

When the flower-spikes begin to show, weak liquid manure and soot-water may be given occasionally, and this treatment should be continued after the flowering is over until the foliage begins to turn yellow, when all water must be gradually withheld. When the leaves have quite died down, the pots, with the bulbs in them, should be put on a shelf in the greenhouse or in a cold frame, where they may be kept perfectly dry and at the same time be fully exposed to the sun. This baking is necessary, for upon the proper maturing of the bulbs by feeding and ripening depends the bloom of the following year. To sum up, the maxims for successful Freesia culture are early potting, no plunging in ashes or fibre, little water and abundance of air in the first stages of growth, early staking, occasional feeding and proper ripening. With due observance of these simple rules I think anyone may have nice pots of bloom from Christmas onwards.

JOSEPH JACOB.

THE SUMMER-HOUSE AND PERGOLA FOUR YEARS LATER, SHOWING THE RESULTS OF WISE PLANTING. (*See page 382.*)

THE FLOWER GARDEN.

DAFFODIL NOTES.

CHOICE VARIETIES AND EARLY PLANTING.

THE coming of a few early lists of new and, for the most part, expensive Daffodils, and of special offers of bulbs for early planting, reminds me that one must begin to think of what is to be bought for next season, and as soon as these notes are in print no time should be lost in ordering any of the newer varieties that are wanted and getting the ground ready for their reception. Nothing is better than double digging, adding in the process some fine bones, or, if it is old garden soil, some slaked lime instead. In my next notes I propose to give the names and a short description of about two dozen of some of the more moderate-priced ones that I can recommend as good both in quality and vigour.

When a collection is being formed it is well to remember that when, in the course of a few years, the numbers of the different varieties have increased, and one has got together a little stock of what one likes best, they will come in to plant in the borders and take the place of less meritorious sorts. This is why I lay stress on their being vigorous or good growers. When we have given £1 or £1 10s. for a bulb, we do not like to anticipate that in two years' time all that will remain of our costly purchase will be a label with a name.

Although Daffodils are so accommodating that they will give us fair flowers even if they are planted at the end of November, there is no doubt at all about the value of early planting, both in the production of offsets and also in the quality and size of the bloom produced. Hence the golden rule, "Plant as early as you can."

DAFFODILS AT CHRISTMAS AND THE NEW YEAR.

If fairly good flowers are wanted for Christmas and the New Year, supplies should be ordered at once, and the bulb merchant should be asked to send them as soon as he possibly can. If we can get our earliest flowering bulbs potted or boxed before the end of August, they will have every chance of doing well and forming good roots before they are housed. In this early forcing work the production of roots is all-important. If there is any doubt about it, the pots should be examined before being put into heat. One possible pitfall I must mention, and that is a dry September. Very often the place chosen for plunging the pots (in ashes or sand) is under a wall or in some sheltered spot where but little rain will reach them. In such seasons and cases they will require a good watering every now and again. This seems a rather simple matter to mention, but I have heard of experienced growers who in this matter have been caught napping.

Another cultural detail which must be carefully attended to is bringing the pots or boxes into heat. This must be done as gradually as possible, according to the facilities of the establishment. In my own garden we put them in a cold frame at the end of October if the season is cold and wet, otherwise we leave them in the open until the beginning of the third week in November, when we put them into the greenhouse, the temperature of which varies between 45° at night and 60° in the day, and we never have any difficulty in getting flowers for New Year's Day.

As to varieties, I do not think anyone can do better than grow Henry Irving as a first early—if it comes from the same place as Golden Spur it is always in flower a week before it. For second earlies I would advise Golden Spur and obvallaris (Tenby Daffodil). These are old, well-tried varieties that are easily grown and always appreciated.

Last winter I made some experiments with bulbs ripened in different parts of the United Kingdom to see if there was any appreciable difference in the forcing qualities of those that came from the North and the South. Although I do not feel justified in saying much about the results, I think I may say that those which I presume were ripened the earliest came the soonest into flower. A very large wholesale firm is, I see from their list, making a speciality of bulbs imported from the South of France. I hope to grow some myself and carefully test them beside English and Dutch grown ones. When the results appear I hope to give readers the benefit of my experience. JOSEPH JACOB.

THE HORNED VIOLET.

(VIOLA CORNUTA.)

AN old garden plant once held in high regard because of its value for bedding is Viola cornuta (the Horned Violet), a plant whose free-flowering properties render it of great service for many purposes, even if it is less esteemed as a bedding plant than in days of yore. It is a little lax in its habit of growth, but its true perennial character and the liberality with which it produces its moderate-sized flowers of a good blue make it an excellent plant for the garden. A few clumps near the front of the border trailing over stones, where these are used as an edging to the herbaceous border, or a bank of this pretty Viola, such as that shown in the accompanying illustration, will form a beautiful picture during the flowering season, which is for several months from April onwards on old plants. The colour is purplish blue, but there are white varieties of great beauty, and a form called Papilio is of much service. At the last Temple Show a deep-coloured variety was shown as V. cornuta atropurpurea, and it promises to be a good acquisition. V. cornuta comes freely from seeds, or may be propagated by cuttings struck in the same way as the florists' Viola or the Pansy. It is perfectly perennial, and lasts for years in good condition if cut back after blooming. S. ARNOTT.

THE HORNED VIOLET (VIOLA CORNUTA) GROWING ON A BANK.

PROPAGATING BEDDING PLANTS.

ALTHOUGH many of our bedding plants have made slow progress this season, it is quite necessary that their propagation should now be taken in hand if strong young stock is to be had for wintering. It is far better to lay in a stock now than to depend on forced plants in early spring; then work comes in with a rush, and it is almost impossible to give these due attention at that busy season, and even if it were, the results obtained would not prove so satisfactory as those from cuttings planted now.

THE YELLOW GENTIAN.

(GENTIANA LUTEA.)

THE emblem of ingratitude, because often ill-requiting the toil and care of the gardener through its death or shyness of flowering, the yellow Gentian (Gentiana lutea) is yet a flower well worth attempting, as when it does really well it is worth a series of trials, although these may, for the most part, be doomed to failure. Such were one's reflections on seeing a fine plant in the garden of Mr. Wellwood Maxwell, Kirkennan, in Kirkcudbrightshire, the other day. It caught my eye at a distance, and, not thinking for the moment of what it was, it struck me as possibly a glorious Phlomis. On coming a little nearer, however, I observed what it really was, and was delighted to come upon the yellow Gentian in such good condition. The plant itself was a good one, giving plenty of its smooth, dull green leaves, and carrying two fine spikes of yellow flowers, arranged in the whorls so characteristic of this species, and the spikes were about 5 feet high. It was an unusually fine specimen, as, although it is sometimes seen as much as 6 feet high, this is but seldom and in unusually favourable circumstances, and it is oft-times not more than 3 feet in height. This species is not much in evidence in gardens at the present day, but it is worth trying for its distinctness and effect in the border. Hardly anyone not versed in botanical characters would recognise it as a Gentian. Its cultivation does not seem to require anything special in the way of soil, although it often fails on any soil. That at Kirkennan is a rather heavy loam on a clay subsoil, and there it has thriven well and has given no trouble to establish. It can be raised from seeds, which are generally slow of germination, and also by division of well-established plants. S. ARNOTT.

THE HERBACEOUS PÆONIES.

THESE plants are almost indispensable in any garden, as few flowers can vie with them during their season for brilliance of colour and stately effect. Add to this the fact that many varieties possess a delightful fragrance, and the popularity of this family is not difficult to understand. When a mass of flowers representing the best varieties are seen, the effect produced is not easy to describe. The culture of the herbaceous Pæony presents no difficulties which the amateur cannot easily surmount; indeed, it is one of the most accommodating of hardy plants. They will thrive in shady spots where it is difficult to establish many other plants. They are not fastidious as to soil, but well repay for deep trenching of the land and the application of plenty of half-rotten manure. Planting may be carried out from October to March during suitable weather, the earlier the better, as the plants commence making new roots before the severe weather of winter sets in.

Pæonies are excellent for planting in the front of shrubberies, by the side of carriage-drives, and are also most imposing in large beds. Owing to the size and brilliance of their flowers they are visible at a greater distance than many other subjects. The flowers are very suitable for cutting and last a long time in water. The Rose-scented varieties are much appreciated when used for indoor decorations. Bulbs may be planted among them for giving an early spring display and Gladioli for flowering in the late summer months. Single plants, in small circular beds on the margin of a lawn bounded with shrubs (chiefly evergreen), give an excellent effect. Plant in good soil and allow them to remain undisturbed for a number of years.

A mulching of rotten manure during the growing season will prove beneficial, resulting in larger and much finer flowers. Failing a mulch, manure-water should be applied occasionally, preferably during showery weather. In the absence of rain give a good soaking of clear water before applying the manure-water. Hybridists have paid great attention to Pæonies for a number of years, with the result that many varieties furnish very striking colours, and the intending planter should certainly include some of the newer sorts in his collection. Single Pæonies are considered by some more showy than the double sorts. They are certainly very brilliant, their large Poppy-like flowers being among the most conspicuous in the flower garden. There are varieties of many colours, the flowers last well, and the majority of them are very free-flowering.

C. RUSE.

THE ROSE GARDEN.

ROSE JULIET.

THIS really remarkable novelty, which was exhibited by Messrs. William Paul and Son of Waltham Cross at the Royal Horticultural Society's meeting on the 20th ult., is another example of what we owe to the science of cross-fertilisation. Here we have a Rose whose seed parent was Captain Hayward portraying in a marvellous manner in foliage, growth and bloom the distinct characteristics of its pollen parent Soleil d'Or. The fusion of scarlet crimson and orange gold of the two parents has produced an offspring whose petals on the inner side are a sort of old gold colour and the backs of the petals a beautiful carmine crimson. The blooms are large, of somewhat irregular form, but exceedingly attractive in the opening stages; unfortunately, the novelty of colouring wanes in the expanded flower. In vigour it is almost comparable to a Hybrid Sweet Briar, but no one can mistake its origin on the paternal side when the Rose is seen growing. Yearling plants produce thick, reddish-coloured wood that will run up to a height of 6 feet to 8 feet, and the grass green foliage and its peculiar fruity fragrance are other indications that it owes its origin to Soleil d'Or.

Juliet will be a real gain to our gardens grown probably more as a pillar or isolated shrub than as a bush. As a pot plant I believe it will be in great demand, its novel colouring being much enhanced by this mode of culture, and although such a vigorous Rose, every shoot will produce bloom.

THE NEW ROSE JULIET. (*Natural size.*)

We have to prove next season three other novelties emanating from Soleil d'Or as their pollen parent, two of them having Caroline Testout as their seed parent, which should be really a more desirable cross than where a Hybrid Perpetual has been used. One of them named Entente Cordiale comes from M. Guillot, to whom we are indebted for many charming Roses; the second variety was, I believe, raised by Baron Von Pallandt. It is named Veluwezoom, and is described as brilliant dark rosy carmine, with a yellow reflex. It has been awarded a gold medal at Haarlem. The third variety is named after your valued correspondent Arthur R. Goodwin, whose able pen has been rather quiet lately. The colour is coppery orange red, passing to salmon pink. I hear excellent reports of this Rose. It will thus be seen that hybridisers are fully alive to the possibilities accruing from using Soleil d'Or and its descendants in their experiments, and I fully believe we shall before long have a very beautiful collection of these Roses, which group M. Pernet-Ducher has happily named R. pernettiana. This group, of course, embraces that really magnificent novelty the Lyon Rose, certainly the best of its year. P.

ROSE KRONPRINZESSIN CECILIE.

WE have in this beautiful novelty a decorative Hybrid Tea Rose of much value. Indeed, it is not only useful for the garden, but even exhibitors will find it a useful addition to the show blooms. There is a delightful freshness about its pale silvery pink blooms that appeals to the eye immediately. The buds are long, handsome, and develop into large and well-shaped flowers. It is a free and continuous bloomer, and is one of those decorative Roses that produce a fine, large, spreading cluster on erect stems. P.

ROSA LUCIDA ALBA.

THIS interesting white variety of the well-known R. lucida originated, I believe, in America, and was first exhibited at Vincent Square by Mr. Prichard of Christchurch. Its foliage is pale

"THE GARDEN" FLOWER SHOW.

IT is with great pleasure that we have to record that the second annual show arranged by the Proprietors of THE GARDEN for our readers proved a magnificent and unqualified success, the entries in every class far exceeding those of last year. The large hall and both annexes were completely filled, and, in addition to these, the lecture-room and one committee-room on the first floor were filled with vegetable exhibits, which were of exceedingly good quality. The beauty of the exhibition was considerably enhanced by the many beautiful Palms and other foliage plants kindly lent for the Sweet Pea tables by Messrs. Stuart Low and Co. of Bush Hill Park. Following will be found the names of the prize-winners in the various classes :

AMATEURS' CLASSES.

SWEET PEAS.

Eighteen bunches of Sweet Peas, distinct: First, Mr. Marshall Y. Green, Eynsford, Kent, who had a beautiful, clean and well-finished set of flowers, including Sutton's Queen, Menie Christie, Apple Blossom, Frank Dolby, Mrs. H. Sykes, Prince of Asturias, Audrey Crier, Helen Lewis, Mrs. Collier, John Ingman, Helen Pierce, Countess Spencer, Hannah Dale, The Marquis, King Edward VII., Mother o' Pearl and Jessie Cuthbertson; second, G. Davidson, Esq., Quadrant Road, Thornton Heath, who followed closely with fine flowers of Asta Ohn, Mrs. A. Ireland and George Herbert; third, G. H. Gray, Esq., 9, Blackborough Road, Reigate, Surrey; fourth, C. Wallace Cox, Esq., Church Road, Malvern Link. There were ten entries in this class.

For twelve bunches, distinct: First, E. T. Baker, Esq., 63, Brigstock Road, Thornton Heath, who staged an admirable lot of flowers—Mrs. Routzahn, Helen Lewis, Countess Spencer, Constance Oliver, Prince of Asturias, Frank Dolby, Evelyn Hemus, Mrs. H. Sykes, G. Herbert, Asta Ohn, Malcolm's Waved Cream, and The King; second, Mr. Marshall Y. Green, with a well-set-up exhibit, including G. Herbert and The Marquis; third, E. C. Hole, Esq., Winforton, Hereford; fourth, Henry Lewis, Esq., Hayes, Kent. Eighteen entries.

Six bunches, distinct: First, W. G. Cramp, Esq., 175, Fallsbrook Road, Streatham, whose very fine stand included Countess Spencer, Nora Unwin, Elsie Herbert, Helen Lewis, Paradise Ivory and John Ingman; second, F. Green, Esq., Inverary, The Polygon, Southampton, who had fine bunches of Helen Lewis and King Edward VII.; third, J. A. Newman, Esq., Elmgrove Road, Weybridge; fourth, the Rev. J. B. Shackle, Dropmore Vicarage, Maidenhead. There were thirty-three entries in this class.

Three bunches, distinct: First, F. Green, Esq., who had fine clean bunches of Evelyn Hemus, Countess Spencer and King Edward VII.; second, W. G. Cramp, Esq., who closely followed him and had John Ingman in excellent form; third, B. W. Lewis, Esq. Thirty-six entries.

One bunch, distinct: First, F. Green, Esq., with an admirable vase of Helen Lewis; second, J. A. Newman, Esq., with the same variety; third, W. G. Cramp, Esq. Forty-seven entries.

HARDY FLOWERS.

Class 6, for six bunches of hardy herbaceous flowers, was filled with ten competitors, and made a beautiful display. Leading honours were secured by Mr. John Bland, Welland Park, Market Harborough, who had bold and handsome bunches of Gaillardias, Eryngiums, Achillea Ptarmica The Pearl, Helenium grandicephalum striatum, Centaurea macrocephala, Delphiniums, Erigeron speciosum, Liliums and Monarda didyma. Second prize was won by Mr. H. L. Sell, Kempton Villa, Cromwell Road, Luton, who also had a beautiful series. A pretty collection won third prize for Miss May E. Shears, Thorley Pyrford, Woking, Surrey; and Mr. George Cheney, 36, Broadway, Kettering, was fourth.

There were no fewer than fourteen entries in the class for six bunches of hardy herbaceous flowers, and the whole of them showed well. A grand series won first prize for Mr. F. Gower, The Vicarage Cottage, Petersham, Surrey, which included Alstrœmeria aurea, Chrysanthemum maximum, Phlox, Chelone barbata seedlings, Aconitum Napellus bicolor and Eryngium giganteum. A capital second was found in Mr. A. Childs, gardener to the Hon. F. Baring, Alresford, Hants. His Delphiniums and Achillea were beautiful. Third prize was well won by the Rev. J. B. Shackle, Dropmore Vicarage, Maidenhead, who had handsome bunches. Fourth prize was secured by a cottager, Mr. W. Bignell, 5, Castle Yard, Highgate, N.

A GENERAL VIEW OF THE SHOW AT OPENING TIME.

Roses.

Twenty-one exhibits of twelve Roses, distinct, were set up in Class 8 and made a brave show. First prize was awarded to Mr. R. Foley Hobbs, Thorneloe, Worcester, who had a good box of blooms. The best specimens were Countess of Derby, Mrs. Theodore Roosevelt, Bessie Brown, Dean Hole, Mildred Grant, Duke of Wellington and Kaiserin Augusta Victoria. Second prize was secured by Mr. Lewis Pawle, Rowsham, Harrow, with large flowers that had felt the unfavourable weather of late. A neat box of blooms won third prize for Mr. George Boyd, gardener to Mr. S. F. Jackson, Danehurst, Epsom.

Class 9, for six Tea Roses, distinct, was contested by nine exhibitors, Mr. Foley Hobbs again heading the list with capital blooms of Mrs. Edward Mawley, Mme. Jules Gravereaux, Comtesse de Nadaillac, Mme. Cusin, Muriel Grahame and another. The Rev. J. B. Shackle was a good second, having a lovely bloom of Mrs. Edward Mawley. Third prize was secured by the Rev. J. H. Pemberton, Havering-atte-Bower, Essex; and fourth prize went to Mr. George Boyd.

There were eleven exhibitors in Class 10 for six Hybrid Perpetual Roses, distinct. Mr. R. Foley Hobbs again triumphed with a beautiful series, showing Helen Keller, Victor Hugo, Mrs. John Laing, Horace Vernet and others. Second prize was secured by Mr. F. Pridham, Chipstead, Surrey. Third prize was awarded to Mr. E. M. Morris, Uckfield, Sussex; and fourth prize went to Mr. H. Matthews, Old School House, Brockham, Surrey.

There were no fewer than eighteen entries in the class for six Hybrid Tea Roses, distinct. In this competition the Rev. J. B. Shackle was well to the fore with good blooms, showing Mrs. W. J. Grant, Mrs. T. Roosevelt, Gladys Harkness, Duchess of Portland, Queen of Spain and Florence Pemberton; Mr. R. Foley Hobbs was placed second with an interesting series; the Rev. J. H. Pemberton, third, with a capital set; and fourth prize went to Mr. E. M. Morris for a meritorious display.

Violas and Pansies.

Violas were plentifully shown, the competition being keen. Eighteen exhibits were staged in Class 12 for six varieties of Violas, three blooms of each. First prize was awarded to Mr. A. Billingham, 290, Camberwell New Road, S.E., for blooms of fair quality; Mrs. Chichester, Swan, Admiral of the Blues, Duke of Argyle, Mrs. J. H. Rowlands and another were his varieties. Second prize was secured by Mr. Marshall G. Green, The Lodge, Eynsford, Kent, with a fresh and attractive display. A beautiful lot of flowers won third prize for Mr. George Davison, Elm Lodge, Quadrant Road, Thornton Heath, who followed the others very closely.

FIRST PRIZE COLLECTION OF FRUIT, SIX DISHES (OPEN SECTION). (*Shown by Mr. T. Stevenson, Addlestone.*)

Class 13, for six fancy Pansies, found Mr. W. G. Cramp, 175, Fallsbrook Road, Streatham, S.W., leading, followed by Mr. D. W. Bedford, The Braes, Berkhamsted, Herts, for second prize, and Mr. Hugh Jones, Tudor House, New Barnet, was third.

Annuals.

Ten entries in Class 14, for nine kinds of annuals, one bunch of each, made a most attractive display and proved the value of these annual flowers in no uncertain fashion. First prize was well won by Mr. A. Swann, Ramsden Heath, Billericay, Essex, who had beautiful examples of Lupine, Phlox Drummondi, Gypsophila elegans rosea, Sweet Peas, Ten-week Stock, spiral Candytuft, Dimorphotheca aurantiaca, Chrysanthemum inodorum and others. An excellent second was found in the exhibit of Mr. John Bland, Market Harborough, who ran the first prize lot uncomfortably close. A capital third prize series came from Mr. George Cheney, 36, Broadway, Kettering.

Carnations.

Class 15, for six border Carnations, distinct, three blooms of each, was represented by seven exhibits. The leading group came from Mr. R. Morton, Grange Dene, Woodside Park, N., who set up superb examples of Liberté, Daffodil, Agnes Sorrel, Rony Buchanan, Lord Steyne and Leonora. Second prize was won by Mr. Lewis S. Pawle, who had good blooms; and equal third prizes were secured by Mr. J. Fairlie, Acton, and Mr. W. G. Cramp, 175, Fallsbrook Road, Streatham, S.W., both showing well.

There were only four exhibits in Class 16 for three varieties of border Carnations, distinct, three blooms of each. First prize was secured by Mr. W. G. Cramp with beautiful blooms; Mr. J. N. Newman, Elm Cottage, Elmgrove Road, Weybridge, was second with an interesting series; and third prize was awarded to Mr. W. Webb, 35, Laurie Park Road, Sydenham, S.E.

FIRST PRIZE EXHIBIT OF EIGHTEEN BUNCHES OF SWEET PEAS (OPEN SECTION).
(*Shown by Mr. T. Stevenson, Addlestone.*)

Pot Plants.

Class 17, for three Zonal Pelargoniums in bloom, distinct, was contested by one exhibitor only, who was awarded first prize. This came from Mr. E. Houlton, Dulwich, S.E.

Class 18, for three Gloxinias in bloom, had only one entry. First prize was awarded to Mr. J. W. Harrison, Ashbourne Stables, Sydenham, S.E.

The competition for three tuberous-rooted Begonias in bloom, distinct, was better; there were four entries. First prize was placed to the credit of Mr. B. Wilson, The Dell, Leverstock Green, Hemel Hempstead, Herts, for freely flowered plants. Mrs. George Gally, The Holme, Walton-on-Thames, had good plants for second prize; and third prize was awarded to Mr. A. Cole, Ippleden, Hemel Hempstead.

Table Decorations.

Class 20, for a table decoration of Sweet Peas, was a charming feature of this great show. There were eleven entries in this class, and premier honours went deservedly to Mrs. H. Percy Cottam Mallaig, King's Langley, Herts, for a beautiful decoration of soft pink Sweet Peas. The arrangement was daintily disposed, and bright green fronds of Asparagus were tastefully interspersed for effect. A pretty decoration won second prize for Mrs. Gentle, Little Gaddesden, Berkhamsted, who had cream and pink tinted flowers charmingly associated with beautiful hardy foliage. A novel display secured third prize for Mrs. C. A. L. Brown, Hatfield Peverel, Essex, who had Henry Eckford and cream Sweet Peas contrasted with tanned Rose growths and foliage.

Class 21, for a table decoration of any flowers, had eleven competitors and was a most interesting feature. First prize was awarded to Mrs. W. A. Hobbs, 54, Wallburton Road, Brockley, S.E., for a pleasing artistic creation in which pale pink Sweet Peas, sprays of Humea elegans, Grasses and hardy foliage were displayed in pretty fashion. Mr. George Boyd was a good second with Odontoglossums set up in handsome sprays and associated with bright green fronds of Asparagus and Ferns. This exhibit was somewhat crowded, and suffered in consequence. Third prize was secured by Mrs. George Gally, who had a pretty creation but rather too dense. Sweet Peas and Spiræas were the flowers used.

Fruit.

Class 22, for six dishes of small fruits, was a good feature. There were five exhibits, the leading one coming from Mr. F. Hayter, The Lodge, Fieldhurst. Red Currants, Gooseberries, White Currants and Black Currants were all good. Second prize was won by Mr. A. Childs, Alresford, Hants. Raspberries and White Currants were excellent in this set. A meritorious series secured third prize for Mr. Hugh Jones, Tudor House, New Barnet.

For Class 23 there were fourteen exhibitors, and without exception they showed well three dishes of Gooseberries, distinct. A grand trio won first prize for Mr. N. Matthews, gardener

to The Rectory Gardens, Brasted, Kent. The quality was superb. Second prize was awarded to Mr. F. Hayter, who had three very even dishes of fruits. Excellent were the three dishes in the third prize exhibit, which was staged by Mr. E. H. Guy, 9, Blackbrough Road, Reigate, Surrey.

Ten exhibits were set up in the class for three dishes of Currants, Red, White and Black. A grand trio secured first prize for Mr. F. Hayter, who staged superb fruits for the coveted honours. The berries and bunches were large and the fruits were well coloured. Second prize went to Mr. R. J. G. Read, Cadbyrie House, Castlebar Hill, Ealing, W., who ran the first prize series closely. A neat lot from Mr. A. Childs won third prize in this class.

There were also ten entries in Class 25, for a dish of Raspberries, a magnificent lot of large fruits securing leading honours for Mr. A. Childs. Second prize was won by Mr. Hugh Jones with a good exhibit; and third prize was awarded to Mr. N. Matthews.

Class 26 was a competition for a dish of any fruit not mentioned in the other classes. With a dish of Givon's Late Prolific Strawberry, Mrs. A. M. Platt, Ken View, View Road, Highgate, won first prize ou of ten exhibitors, which was an excellent achievement; a good Melon secured second prize for Lady Susan Trueman, Bayman Manor, Chesham, Bucks; and third prize was awarded to Mr. E. Houlton, Dulwich, S.E., for Black Hamburgh Grapes.

Vegetables.

In Class 27, for a collection of six distinct sorts of vegetables, there were four excellent exhibits. First prize was awarded to Mr. A. Childs for a well-balanced collection, Tomatoes, Carrots, Onions, Peas and Cauliflowers being well shown; second prize was secured by Mr. A. H. Boys, The Grange, St. Albans, Herts, for a good series; and third prize went to Mr. F. J. Gentle, King's Langley.

The seventeen entries in Class 28, for three dishes of Peas, distinct, formed a remarkable display, all being in splendid condition. First prize was worthily won by Mr. W. Pultney, Crescent Road, New Barnet. The varieties were Duke of Albany, Quite Content and Exhibition, and the pods were large and well filled. Mr. J. A. Newman, Weybridge, followed very closely for second prize; and Mr. N. Langley, Bushey Heath, Herts, was placed third.

No fewer than thirty-six exhibits were staged in Class 29, for one dish of Peas. We never remember seeing anything better. Quite Content won first prize for Mr. Hugh Jones, who showed extremely well. The same variety secured second honours for Mr. E. E. Atkins, 6, Lincoln Road, South Norwood, S.E.; and for The Beckett Pea Mr. Gentle was awarded third prize.

The twenty exhibits in Class 30, for three dishes of Potatoes, distinct, formed an astonishing display. The tubers were staged in excellent condition. Leading honours fell to the lot of Mr. A. H. Boys; Duke of York, Surprise and Snowdrop were his varieties. A good second was found in the exhibit of Mr. W. G. Child, Thornton Heath, S.E., who had an even set of fine tubers. Third prize was secured by Mr. A. Childs with a wonderful lot of clean, well-grown tubers.

There were no fewer than thirty-seven entries in Class 31, for a dish of nine Potatoes. A grand dish of Duke of York won first prize for Mr. Boys; second honours were won by Mr. W. G. Child, also with fine examples of Duke of York; and third prize went to Mr. A. Childs for a beautiful lot of Lord Roberts.

Nine entries in Class 32, for a dish of nine Tomatoes, made a most interesting display. First prize was won by Mr. Henry Lewis, Hayes, Beckenham, Kent, for a superb dish of Sutton's A1. Mr. H. J. Cooke, The Leys, Woburn, Beds, was second; and, with Best of All, Mr. J. A. Spicer, Heath House, Staines, was third.

Eight bunches of autumn-sown Onions in Class 33 were all good. Leading honours went to Mr. F. J. Gentle, who had large and handsome bulbs. A good second was found in Mr. H. J. Cooke; and Mr. J. A. Newman was third with a good bunch.

Of the thirteen exhibitors in Class 34, for a bunch of spring-sown Onions, Mr. E. M. Morris, Uckfield, was a very excellent first. Much smaller were the Onions securing second prize for Mr. Edwin Burnett, 1, Sutherland Villas, Enfield. A close third was found in Mr. Gentle.

Eight entries for two Vegetable Marrows, in Class 35, were good. First prize was awarded to Mr. F. Hayter; second prize went to Mr. E. Fuller, Bishop's Stortford; and third prize went to Mr. J. Bedford, Waltham Cross.

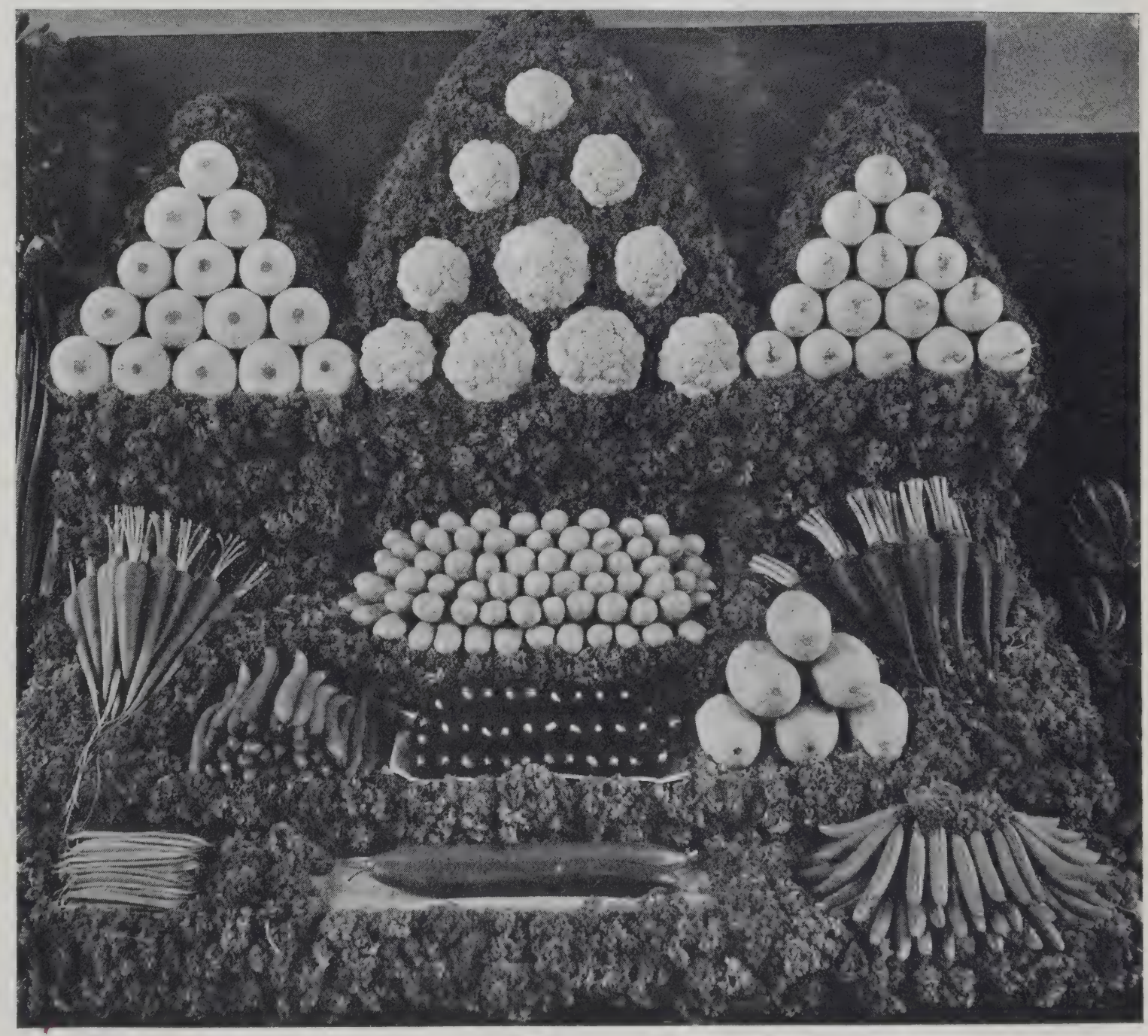
Class 36, for a bunch of Intermediate Carrots: Mr. A. Childs was first with good specimens; second prize went to Mr. A. H. Boys; and third was secured by Mr. E. Fuller, who showed well.

Class 38, for three tap-rooted Beet: First, Mr. A. Swann; second prize was awarded to Mr. A. H. Boys; and third prize was won by Mr. H. J. Cooke.

Class 40, for two Cucumbers: Mr. H. J. Cooke was a good first; second prize went to Mr. J. W. Harrison; and third prize was secured by Mr. Marshall Y. Green for a nice brace.

Class 39, for three Beets, Turnip-rooted: First prize was secured by Mr. H. J. Cooke; second went to Mr. A. Franklin; and third prize was well won by Mr. W. H. Morton, Ellamcote, Gloucester.

Class 37, for one bunch of stump-rooted Carrots: First prize was deservedly won by Mr. A. H. Boys; second prize went to Mr. E. Fuller; and third to Mr. A. Childs, all of whom showed well.



FIRST PRIZE AND GOLD MEDAL COLLECTION OF TWELVE KINDS OF VEGETABLES.

Shown by H. T. Tatham, Esq., Kendall Hall, Elstree (gardener, Mr. W. Gaiger).

OPEN CLASSES.

Sweet Peas.

Eighteen bunches, distinct: First, Mr. T. Stevenson, Woburn Place Gardens, Addlestone, who staged the finest exhibit of Sweet Peas in the show, the whole of which were in excellent condition and of exceedingly high quality. The varieties shown were Evelyn Hemus, Black Knight, Elsie Herbert, Spencer America, Clara Curtis, Lavender G. Herbert, J. Ingman, Prince Olaf, The King, The Marquis, Mrs. Henry Bell

Improved, Nora Unwin, Helen Lewis, Audrey Crier, Rosie Adams, Countess Spencer, St. George and Mrs. H. Sykes; second, Mr. A. E. Usher, gardener to Sir Randolf Baker, Bart., Blandford, who also showed an admirable set of flowers, including Audrey Crier, Prince of Asturias, Asta Ohn Spencer, Doris Usher and Evelyn Hemus in good form; third, Mr. J. S. Tubb, The Gardens, Oakbank, Seal, Sevenoaks; fourth, Mr. R. Brown, gardener to Lady Tress Barry, St. Leonard's Hill, Windsor. Six entries.

Twelve bunches, distinct: First, Mr. A. E. Usher, gardener to Sir Randolf Baker, Bart., who had a particularly well-displayed set of flowers of The King, Helen Lewis, Queen Victoria Spencer, Holdfast Belle, Prince of Asturias, John Ingman, Mrs. H. Sykes, Menie Christie, Mrs. A Ketton, whose chief flowers were Heucheras, Anthemis tinctoria Kelwayii, Alstrœmeria aurantiaca, Galega and Cimicifuga racemosa; third, Mr. Charles Smith, gardener to A. H. Evans, Esq., Harris Hill, Newnham, who had excellent vases of Centaurea ruthenicus, Eryngiums, white perennial Pea and Larkspur; and the fourth prize was won by Mr. George Cheney, 36, Broadway, Kettering, who staged a capital lot of flowers.

In Class 46, for six bunches of herbaceous flowers, Mrs. E. P. Butcher, 55, Upper Brook Street, Ipswich, was placed first, her best flowers being Galegas, Alstrœmeria aurea, Larkspur and white perennial Pea; second, J. Bland, Esq., Welland Bank, Market Harborough, whose Helenium autumnale and Lilium testaceum were

FIRST PRIZE EXHIBIT OF EIGHTEEN BUNCHES OF SWEET PEAS (AMATEURS' SECTION).

(Shown by Marshall V. Green, Esq., The Lodge, Eynsford, Kent.)

Ireland, Audrey Crier, Primrose Spencer and Asta Ohn Spencer; second, Mr. J. Tomlin, Ammigster Park, Chertsey, gardener to Mrs. Goldingham, who showed good bunches, including Helen Lewis, Black Knight Spencer, Constance Oliver and A. J. Cook; third, Miss Colvin, Ketton Hall Gardens, Ketton; fourth, H. T. Tatham, Esq. (gardener, Mr. W. Gaiger), Kendall Hall, Elstree, Herts. Ten entries.

Nine bunches, distinct: First, Mr. Thomas Stevenson, who staged an excellent set of A. J. Cook, Mrs. C. W. Breadmore, Black Knight Spencer, Mrs. H. Bell Improved, Frank Dolby, Marjorie Willis, Etta Dyke, John Ingman and King Edward VII.; second, Mr. A. E. Usher, who also had a nice clean lot, staging fine bunches of Helen Lewis, Zephyr, John Ingman and Asta Ohn; third, E. Watford, Esq., Netherfield; fourth, Mr. J. Tubb. Eleven entries.

Six bunches, distinct: First, Mr. A. E. Usher, whose vases of Mrs. H. Sykes, The Marquis, John Ingman, Constance Oliver, Prince of Asturias and Etta Dyke were exceptionally clean and fresh; second, E. Watford, Esq., who followed closely, including a fine vase of Mrs. Hardcastle Sykes; third, Mr. J. Tomlin; fourth, F. Green, Esq., Southampton. Eighteen entries.

Hardy Flowers.

For twelve bunches of hardy herbaceous flowers, Mr. J. T. Tubb, The Gardens, Oakbank, Seal, Sevenoaks, was a good first with Lilium testaceum, Gaillardias, Pentstemons, Phloxes, Lychnis chalcedonica and Larkspurs; second prize went to Miss Colvin, Ketton Hall Gardens, very fine; third, Mr. E. Clements, Etwall, Derby; fourth, Mr. A. E. Usher, gardener to Sir R. Baker, Blandford.

Class 54 was for twelve kinds of annuals, distinct, first honours falling to Mr. J. Tomlin, gardener to Mrs. Goldingham, Ammigster Park, Chertsey, who had Stocks, Rocket Larkspurs, Sweet Peas and Lupines in good condition; second, Mr. R. Brown, gardener to Lady Tress Barry, St. Leonard's Hill, Windsor; third, G. Cheney, Esq., Kettering. This class was well contested, and there were many excellent vases of flowers staged.

Roses.

In Class 47, for eighteen Roses, distinct, to include Teas, Hybrid Teas and Noisettes, the Rev. J. H. Pemberton, Havering-atte-Bower, Essex, was first. He displayed excellent flowers of Earl of Warwick, Mme. Jules Gravereaux, Bessie Brown and Mildred Grant. Second, R. Foley Hobbs, Esq., Thornloe, Worcester, whose blooms of Dean Hole, Her Majesty and Mildred Grant were all excellent; third prize went to Gulliver Speight, Esq., The Square, Market Harborough, who had a very fine Mme. Jules Gravereaux in his lot.

In Class 48, for nine Tea Roses, distinct, the first prize went to F. Pridham, Esq., Chipstead, Surrey, who had good Souvenir de Pierre Notting, White Maman Cochet, Bridesmaid and Innocente Pirola; second, R. Foley Hobbs, Thornloe, Worcester, whose Comtesse de Nadaillac was very fine; third, Rev. J. H. Pemberton, Havering-atte-Bower.

Class 49, for nine Hybrid Tea Roses: First, Gulliver Speight, Esq., Market Harborough, whose J. B. Clark and Mildred Grant were very fine; second, R. Foley Hobbs, Esq., Worcester; third, Rev. J. H. Pemberton, whose bloom of Bessie Brown was excellent.

In Class 50, for nine Hybrid Perpetuals, distinct, G. Speight, Esq., was a good first with Her Majesty, Mrs. Laing and Helen Keller as the best; second, Rev. J. H. Pemberton; and third, R. Foley Hobbs, Esq., Worcester.

Carnations.

In Class 51, for twelve vases of border Carnations, first prize went to R. Morton, Esq., Grange Place, Woodside Park, N., whose fine lot included Daffodil, Professor Cooper, Liberty, Highland Lass, Merlin and others; second, Messrs. Phillips and Taylor, Bracknell; and third, Edmund Charrington, Esq., Limpsfield, Surrey.

In Class 52, for six vases of border Carnations, three blooms of each, R. Morton, Esq., Woodside Park, N., was first. His blooms of Daffodil, Professor Cooper, Merlin and R. A. Rowberry were all good. Second, Mr. A. E. Usher, gardener to Sir R. Baker, Bart., Blandford. Third, Messrs. Phillips and Taylor.

Violas.

In Class 53, for twelve Violas, first prize was awarded to Mr. George Gally, The Holme, Walton-on-Thames; second, W. Compston, Esq.; third, Mr. E. Clements, Etwall, Derby.

Table Decorations.

In Class 55 a table decoration of Roses was asked for. First prize fell to Miss Adelaide F. Harwood, 16, St. Peter's Street, Colchester, who had a superb table of Mme. Abel Chatenay, with natural Rose sprays extending to the corner vases. Second, H. L. Sell, Esq., Kempton Villa, Luton. Third, Mr. A. Swann, Billericay, Essex, the two latter exhibitors employing Polyantha Roses.

Class 56 was for a table decoration of Sweet Peas, and here the first prize was awarded to Mrs. W. Martin, Addlestone, Surrey, who had pink and cream coloured flowers, sprays of Prunus Pissardi and trails of Lonicera aureo-reticulata and Selaginella; second, Mrs. Lilian Jones, Marsala Road, Lewisham, S.E., with pink Sweet Peas and Grasses; third, H. L. Sell, Esq., Kempton Villa, Luton.

Fruits.

In Class 57 a collection of fruits, nine distinct kinds, was asked for, second prize being awarded to Miss Colvin, The Gardens, Ketton Hall, Stamford.

In Class 58, for a collection of six dishes of small fruits, first prize went to Mr. Thomas Stevenson, Woburn Place Gardens, Addlestone, who staged excellent Currants, Gooseberries, Raspberries and Strawberries; Mr. Mark Webster, gardener to E. J. Preston, Esq., Kelsey Park, Beckenham, was placed second, and he had many fine dishes; third honours went to Mr. F. L. Pike, gardener to H. W. Henderson, Esq., King's Langley; and fourth to Major-General Sir Charles Hadden, K.C.B. (gardener, Mr. C. Tayler).

Vegetables.

Class 59 was for a collection of twelve vegetables, distinct: First honours in this important class fell to H. T. Tatham, Esq., Kendall Hall, Elstree (gardener, Mr. William Gaiger), whose magnificent lot contained Ideal Cucumber, Duke of York Tomato, Telephone Pea, Canadian Wonder Bean, Scarlet Perfection Carrot, Express Potato, Extra Early Autumn Cauliflower, with Beet, Marrows and Onions. This group also obtained the gold medal offered for the best exhibit in the whole show. Second, Mr. W. Waterton, gardener to R. H. Comyns, Esq., Heath Farm House, Watford, who had a beautiful collection and who won the gold medal last year; third, Mr. R. Staward, The Gardens, Panshanger, Hereford; fourth, Mr. C. J. Dann Spring Hill, Maidstone.

(Continued on page 392.)

reen, the blooms pure white, quite single and roduced in clusters of two to five. It is at home t the foot of a rockery or, indeed, in any posi-ion where a Rose species would look suitable. Ve do not make enough of these pretty species; hey are often crowded into some out-of-the-way orner where their beauty in June is lost.

A BEAUTIFUL BOURSAULT ROSE.

A VERY charming climbing Rose, which is one of he first to bloom in June, is found in the old ariety Morletti. Its flowers are large, semi-ouble, rather flat, and of a light rose pink olour. This is one of the old Roses resuscitated, s it were, from those that have been crowded ut of cultivation owing to the introduction of umerous novelties not half so good as many of hese old sorts. It makes a delightful pillar and s equally beautiful upon an arch, and if grown n a tall stem the growths make a fine spreading ead which exhibits the blooms beautifully. his variety is often catalogued as Inermis Morletti, arising, no doubt, from its thornless ood. Its correct name is Mme. Sancy de arabere, and it was introduced by M. Bonnet nder that name in 1875. It is known on the ontinent to-day by this name. The Boursault oses were at one time in much request, but no ne asks now for them. With the exception of he above, they have no special merit except hat they are very hardy. Some are very eautiful in the bud, notably the old blush oursault. Auxadis is a very poor thing in olour. Gracilis has bright rosy red flowers. R. lpina, to which this group belongs botanically, s a very early flowering species with reddish ood and foliage. The variety pendulina has ingle purplish flowers and very pretty foliage. he heps are very beautiful, of an orange red olour, long and pendulous. R. alpina flore-lena is a very free-flowering sort, with small, eep rose-coloured flowers and fine reddish oliage. P.

ROSE WILLIAM ALLEN RICHARDSON IN A NORTH DEVON GARDEN.

THE accompanying illustration of this charming Noisette Rose is from a photograph kindly sent o us by Mr. A. H. Pitcairn, Northam Lodge, Northam, North Devon, who writes: "I enclose photograph of Rose William Allen Richardson, which may be of interest to you. This Rose does ery well with me, and though facing due south eeps its colour well and is a sight during the onth of June. Unfortunately, the photo-raph cannot show the mass of bloom under the lass of the verandah, where it is trained on ires to the house, and where we have a fair mount of Roses up to Christmas."

ROSE CLIMBING CAPTAIN CHRISTY AS A STANDARD.

WHAT a delightful Rose this is at all times, whether clambering over a porch or trellis, ntrance to a pergola, or growing as a free-eaded standard, a form in which its beautiful lowers are seen to great advantage. This is ne of the few Roses that seem to change their lowers in the climbing form. Most of them ave similar flowers to the dwarf type from which they have sprung; but here we have not nly a smaller flower, but produced in clusters nore like a Tea Rose. Unfortunately, there is o fragrance, and here it resembles the original. A variety sent out a year or two ago, named Mme. Edmée Cocteau, appears to be identical with Climbing Captain Christy, or, if not, is too much like it to be wanted. Of course, in growing his Rose as a standard one must give it ample pace to exhibit its beauty. I have seen these limbing sorts with fine heads planted with Hybrid Perpetual and other Roses, no difference eing made for the large, spreading head it will ltimately make. Such Roses deserve special solated positions, and if with a mass of Pansies beneath of a good contrasting colour, the effect would be fine. Two effective Roses on standards are Lina Schmidt Michel and Lady Waterlow. The first named is almost a single Rose, with the colouring of Mme. Abel Chatenay, from which it is a seedling, and Lady Waterlow is a salmon rose shade, with lovely buttercup yellow to the base of petals. On standards both are very free-flowering, and the three mentioned would afford a most interesting variation in pink shades. P.

THE FRUIT GARDEN.

FRUIT NOTES.

PLANTING STRAWBERRIES.—This is one of the most important of all summer operations in the garden, and it is absolutely necessary that the grower shall devote his best energies to it, so as to ensure that the plants will yield heavily in the three years that they are growing. Runners which were put down as early as possible will now be forming roots rapidly, and the sooner they can be transferred to their permanent positions the better, since they will then have a longer time to become well established before progress ceases for the year, which, with this crop, may be said to be about the end of September. The dibber is still occasionally utilised in Strawberry planting, but never by sound cultivators, for the simple reason that trowel or handfork planting can be done nearly as quickly and the results which accrue are so much more satisfactory. The vast majority of plants put in with a dibber are hung up in a hard-walled hole, and it is obviously impossible for them to grow as well as they would do with their roots spread out in a station such as will be formed when the trowel or hand-fork is used. The amateur may rest perfectly assured that time spent in planting properly will be most generously repaid in the heavier crops of superior-flavoured fruits which will follow.

PREPARING THE GROUND.—As quarters fall vacant through the passing over of vegetables, the soil ought to be immediately worked for the reception of the Strawberries. Nothing short of bastard trenching should be considered, and the deeper the loosening can be carried the better for the plants, as the root-run is cooler and progress will be unchecked even in dry weather. The life-history of the plants in our gardens is limited to three years, and it is necessary that we shall get all we can out of them in that brief period. To this end the best rotted stable or farmyard manure must be incorporated with the second spit in goodly quantities, so that when the plants call for abundant supplies of food in the spring it will be there waiting for them. After deep loosening the ground will require a little time to settle down again to its normal level, and, apart from that, it is most unwise to plant in loose soil; therefore, if time cannot be spared to wait, treading should be judiciously done before the plants are put into position. For the majority of present-day varieties a distance of 2½ feet should be allowed between the rows, with 15 inches from plant to plant in the rows. At these distances the plants will crop quite satisfactorily for one season, but immediately the first harvest is secured every other plant in the lines should be cut out, so as to leave them at a distance of 2½ feet in all directions for the other two years. In the very possible event of the soil being dry when the work has to be put in hand, it is necessary to thoroughly soak it with clear water and to give water afterwards as may be required to ensure constant advance.

ROSE WILLIAM ALLEN RICHARDSON IN A NORTH DEVON GARDEN.

WALL TREES.—These will, in many instances, be carrying heavy crops of fruit at the present time, and it is most important that they shall have regular attention. Not only must there be nets always in position to keep away the birds, but the grower should go carefully over every tree each morning with a view to gathering all fruits that are ripe or sufficiently so to be removed from the stems. Naturally enough, when trees are bearing heavy burdens they demand plenty of support, and watering becomes imperative. Brick walls are excellent for the culture of fruit, but it must ever be borne in mind that the bricks suck comparatively immense quantities of moisture out of the soil, and it must not, therefore, be thought that because the open quarters of the garden do not want artificial watering the borders are in the same happy state. Far from it. Heavy applications alone will ensure the fruits swelling and finishing as they should do, and in many cases it will be the very best of practice to supplement the clear water with weak liquid manure now and again; but this is, of course, a point that each cultivator must settle for himself according to the condition of the soil and the trees. FRUIT-GROWER.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

THE FLOWER GARDEN.—There is no part of the flower garden that gets untidy in a short time more than the fernery. The plants themselves do not look bad as a rule, but they collect all other kinds of leaves, straw, dried grass, paper, shavings and similar material, and on this account more work is involved in the cleaning of the fernery. Where ferneries are, however, kept quite free from foreign matter and from weeds, which grow rapidly there on account of the friendly shade cast by the spreading fronds of the plants, few features in the garden are more attractive or give more satisfaction. At this season the young earwigs begin to attack the Chrysanthemums and Dahlias, and every effort must be made to preserve the buds from being damaged by them. The pests lodge in fading leaves, also in those that are curled and in dry places. A small quantity of Apterite scattered in a circle 1 foot from the stems of the plants will have a good effect in preventing the earwigs reaching the plants. Stronger doses of the powder must also be scattered near wooden fences and similar places where there are no plants growing. A tuft of moss placed in a small pot and lodged in the branches of the plants will serve as a trap, so will 1 foot lengths of Bean-stalks. Furthermore, every evening about nine o'clock it is advisable to examine the plants and kill all the earwigs found on them.

The Vegetable Garden.—Seeds of Cabbages must now be sown in the more northern counties, so that the resultant plants will be strong and come in useful in the spring. South of the Midlands it will be quite early enough if the seeds are sown a week hence. Now it is a fact that many inexperienced culitivators sow the seeds in soil which is too loose and also too rich. Moreover, the seeds are sown too thickly. Select a nice open border in the garden, preferably one in which Potatoes have been grown. Do not add any manure, but tread down the soil while it is fairly dry, draw out drills or remove some of the surface soil, give water, sow the seeds very thinly, and then cover them with the dry soil which was taken off. Do not water the covering soil. In a very short time the seeds will germinate. Lift all Potatoes as the crops ripen. All haulm showing signs of disease must be burned at once. Sound haulm should be taken away from the garden, spread out in the rubbish yard to dry, and then be burned. The tubers, as lifted, must be dealt with in a systematic manner. Those intended for storing must be allowed to get thoroughly dry; one hour's exposure will be sufficient to "set" the skin on them; but the others, intended for seed purposes, may with advantage be left fully exposed to the sun and light until they are almost green. It is not wise, however, to leave them on the ground to get wet. Remove them to an open shed or place them on mats under tilted glass lights. Cut off all flower-stems from Rhubarb and Seakale plants, prepare ground for the sowing of seeds of autumn Onions, and lift, dry and store Shallots.

Fruit Garden.—Many growers of Grapes will now have a very anxious time, on account of the scalding of the berries. Just prior to the commencing of the colouring stage the berries are most liable to scald—that is, the berries on the sunny side of the bunch and near the top, those most exposed, are really scalded, and then they shrivel. The scalding is worse immediately after a spell of dull weather, and so it is advisable to put on a light shading only while the sunshine is strong. Furthermore, the top ventilators should be left open a little all night and opened wider again very early in the morning. If the pipes are kept warm throughout the night a more buoyant atmosphere results. Fig trees bearing fruit must be well watered with liquid manure. Peach and Nectarine trees, both on walls and under glass, must be stimulated with frequent applications of manure-water also.

Greenhouse and Frames.—Freesias should now be potted without delay. A good compost is made up as follows: Fibrous loam, passed through a 1-inch-mesh sieve, two parts; leaf-soil, one part; and sand and road-grit, one part. Very small bulbs should be planted in pans, but the largest must be placed in 5-inch and 6-inch

I.—A PORTION OF GROWTH AS SEVERED FROM AN OLD PLANT OF EVERGREEN CANDYTUFT, AND SHOWING OLD FLOWER-STEMS AND TWO YOUNG SHOOTS.

pots; cover the bulbs 1 inch deep with soil. Ventilate frames freely and remove all seared leaves from Cucumber plants. B.

PROPAGATING THE EVERGREEN CANDYTUFT BY CUTTINGS.

ANY flowering subject of a perennial character that makes a beautiful display in late spring has an especial value in this climate of ours, and if the plant be of a hardy nature, this assuredly adds very materially to its value. In the subject under notice we are dealing with the common rock or perennial Candytuft, which is known to the botanist by the name of Iberis sempervirens. It is a hardy perennial, with dark evergreen leaves, and may be described as a half-shrubby, dwarf, spreading plant. The plant is exceptionally hardy and appears to thrive almost anywhere. When planted in ground that has been well tilled, it is astonishing what beautiful results are obtained. This plant, like many of the other perennial Candytufts, is eminently well adapted for sunny positions in the rock garden, and as a plant for the margins of large borders it has few equals. Besides I. sempervirens, which is a native plant of Southern Europe, there are other beautiful kinds, among the best of which are the following: I. correæfolia, white, 1 foot; I. gibraltarica, white, tinted lilac, with low, close heads, a native of Gibraltar, as its name implies; I. semperflorens, a native of Italy and a plant that has dense corymbs of white flowers, but hardly suited for border culture. I. gibraltarica is one of the prettiest of the perennial Candytufts, but is somewhat delicate, in consequence of which the plant should be wintered in a cold frame.

These evergreen species may be increased by seed sown in April, by layering the shoots during the summer and by cuttings, the latter usually proving the most satisfactory. In Fig. 1 a portion of growth as severed from the old plant, after the flowering period has come to an end, is shown. Numerous growths of similar character will be found on every old tuft, so there should be no shortage of cuttings. A careful observation of this severed growth will reveal several spent flower-stems and two shoots that have developed quite recently. It is to these latter that we have to look for our supply of cuttings. To further illustrate the work, on the left of Fig. 2 is shown an example of a young shoot as broken out or severed from the old plant; note its sturdy, promising character. The next process is simple enough. The lower leaves should be removed from the cutting, as represented on the right of Fig. 2, and the stem of the growth cut straight through immediately below a joint. The cuttings when prepared and ready for insertion should be 2 inches or rather more in length.

The final operation is the insertion of the cuttings in suitable receptacles. Cuttings may be rooted in deep seedling-pans, in boxes 2 inches to 3 inches deep, and in pots of a size to suit the requirements of each individual grower. For most small growers pots will be found more suitable, and for this reason, a pot 5 inches in diameter filled with cuttings of the evergreen Candytuft is shown in Fig. 3. Loam, leaf-mould and sand in equal proportions will make an excellent compost for the cuttings, and if the surface soil be covered with coarse silver sand before the cuttings are dibbled in, the propagator will, when making each hole, carry a small quantity of sand to the bottom, and on this the cutting must rest. Dibble in the cuttings about $1\frac{1}{2}$ inches apart, and be particularly careful to press the soil to the base of each one; this is a most important factor in the successful propagation by cuttings.

Those who have cold frame accommodation and desire to raise a large quantity of plants will find this method by far the most simple of the whole series. Make up a bed of well-drained sandy soil, which must be levelled and made fairly firm. Sprinkle the surface soil with sand and proceed to insert the cuttings in rows rather more than 2 inches asunder and rather less than 2 inches apart in the rows. Water in with a fine-rosed can, cover with a frame-light and shade for a time when the weather is bright and sunny. After a time admit air, gradually at first, increasing this as the cuttings become well rooted and as the weather will allow. The 5-inch pots before alluded to should be placed in the cold frame during the rooting process and the soil maintained in a condition that may be described as just moist.

Readers who have a hand-light or a bell-glass may utilise either of these adjuncts of the garden for raising the evergreen Candytuft. They are so easily controlled and serve the purpose so well that I regard them as invaluable for

2.—ON THE LEFT IS SHOWN A YOUNG SHOOT AS SEVERED FROM THE PLANT, AND ON THE RIGHT THE SAME PREPARED READY FOR PLANTING.

aising stocks of most plants. The shrubby andytufts may be increased by division of the oots in either October or March, and this ystem may appeal to those who have just one r two plants and wish to increase them in a mited degree. D. B. C.

PLANTING ALPINE FLOWERS.

'o the practised a few notes on the planting of lpines in the open may appear superfluous, but ong experience shows one that the beginner is ut seldom catered for in such points as this, ne of the most important for those who are bout to plant out alpines, either those which ave been procured in pots or those which are urchased with the soil shaken from their roots, lthough we do not generally find the choicer hings sent out in this way from a nursery of tanding dealing in the smaller alpines.

The first preliminary is that the position hould be well chosen. A sun-loving plant hould not be planted in the shade, and, imilarly, a shade-lover must not go into a sunny pot. Then the crevice, pocket or ledge where he plant is to go ought to be so planned that the ain-water runs into, instead of away from, the lant. There ought, however, to be ample rainage for the plant, so that its roots will ot be in soil which becomes soured by the water eing unable to pass away from it. The soil hould be free and mainly composed of loam, eat or leaf-soil and sand and grit. It must be o firm that the roots can take hold of it, yet not o hard that they cannot penetrate it.

When it comes to placing the plant in position, few details should be seen to. If the plant is n a pot or comes with the ball of soil attached, he ball ought to be slightly broken or opened at he sides if filled with the roots. It should then e placed in the hole in the rockery chosen for he purpose, and the soil well worked about it nd made firm. Some pieces of stone are then ut about the neck of the plant and put in irm enough so as not merely to lie on the urface and harbour the slugs. In the case of lanting flowers without earth about their roots, he latter should be spread out in the hole and he soil filled in gradually, firming the earth bout the plant as the filling goes on. If it is ot firm, settling will take place, and I know ases of plants which have been quite firm at the ecks, but which had their roots imperfectly upported by the soil beneath.

Should these alpines have to be planted during ry weather, watering is necessary at first, and he flowers should then be shaded for a time rom strong sunshine. A flower-pot over them nd tilted at the side to allow of the admission of sufficient air makes a good shade for the few days it will be necessary. Firm planting, suitable soil, good exposure, plenty of stones well pressed in about the plants and free drainage are all prime factors in the cultivation of alpines, and all of these should be provided for when the plants are secured. A good start is half the battle with alpines as well as with other flowers, and a little care at first will afterwards be rewarded by the possession of healthy, free-flowering plants and a general air of prosperity about the rock garden or little rockery where the charming flowers of the mountains have found a congenial home.

THE ARMENIAN SNAKE'S-HEAD LILY.

(FRITILLARIA ARMENA.)

ONE of the prettiest of the early Snake's-head Lilies, or Fritillaries, is Fritillaria armena, an Armenian species and one which deserves the special appreciation of the cultivator of alpine flowers, seeing that it forms an excellent companion for the alpines of non-bulbous habit, while its stature is also in keeping with them.

Although it has been in cultivation for a considerable time, the Armenian Snake's-head Lily has never acquired a hold in gardens as a whole, probably both because such flowers are not highly popular and also because this little Fritillaria is not much exhibited. A single plant will give comparatively little pleasure to the many. The enthusiast will not hesitate to express his liking for it after he has examined its prettily shaped bell-like flowers, which droop so pleasingly from the 6-inch stem.

This Fritillaria is emphatically a bulb for the rock garden, not only because it is of suitable size, but also on account of its preference for the slopes and valleys of the rockery. In addition, it likes the cooler positions and is thus excellent for brightening up some of the duller spots, especially where these are carpeted by some low-growing alpine. S. ARNOTT.

THE TOWN GARDEN.

BULBS IN POTS.—Last week I urged town gardeners to duly repot and prepare Zonal Pelargoniums for winter flowering, and now I advise them to make preparations for having a fine show of flowers from bulbs as early as possible. The bulbs must be grown in pots, of course, and even a few will give the owner a great deal of pleasure. As far as I am concerned, my enjoyment of various kinds of plants, fruits, &c., does not commence only when the flowering or ripening stages respectively draw near, but it begins with the potting or planting and goes on right through the season to the final stage. I am quite sure that thousands of town gardeners reap pleasure in the same way. Those who do not, miss a vast amount of enjoyment. Few bulbs are more easily grown than Tulips, and the variety and brilliance of their colours make it an easy matter for the cultivator to create very beautiful displays at a small cost. The Duc Van Thol groups of Tulips are very dwarf in habit, very early and the blooms are sweetly scented. Bulbs of these will not be ready for planting for several weeks, but the compost must be prepared and orders given well beforehand. To assist the inexperienced in selecting varieties I will name some here: The common red is bordered with yellow and grows 7 inches high; maximus in an improved variety on the foregoing; crimson is a grand variety, very distinct; scarlet is a brilliant scarlet in colour; rose is a satiny rose in colour; gold striped is coloured scarlet and gold, and is a very dwarf variety, only growing 5 inches or 6 inches high; white is a pure white, and yellow a very clear yellow, both growing 7 inches or 8 inches high. These are all Duc Van Thols.

WHITE ROMAN HYACINTHS AND NARCISSI may be obtained and potted forthwith. It will be unnecessary to use fire-heat for these, as both may be flowered in a cool greenhouse, conservatory or even in a frame; furthermore, these bulbs will grow and blossom very freely in towns. The best compost is that made up of equal quantities of fibrous loam and leaf-soil. To one bushel of the two ingredients a 7-inch potful of coarse sand must be added. Five-inch and 6-inch pots are the best to use, except where large masses of Narcissi are required; then use 7-inch pots. The large-flowered Paper White, the double Roman and Poeticus are the best varieties to pot first. In due time I will give some hints on the potting and management of the bulbs.

CUTTINGS OF BEDDING PLANTS.—It really only seems to be a very short time since we were in the midst of the work of bedding-out the summer-flowering subjects, and now we are obliged to think seriously about the preparation of the cuttings. Amateurs would succeed better, especially with Zonal Pelargoniums, if they made an early start with the propagation of the cuttings, gave them cool treatment and a long period to root in. They would succeed because the cuttings would possess roots before the dull days of winter came, and such young plants would be hardy and pass through the winter in frames and greenhouses splendidly. If the cuttings are carefully selected no gaps need be made nor much time occupied in the work. Use flower-pots and boxes, the former for the variegated ones and the latter for the green-leaved. At the present time the compost and the pots and boxes must be got ready for the taking of the cuttings. The most suitable soil is made up as follows: Old potting soil, if used for the first time during the present year, one half; leaf-soil, one half; with sufficient sand to make all quite porous, as porosity of soil during the winter months is highly essential. If the sand is washed and then dried before being added to the soil it will prove more effective. Both pots and crocks must be clean, inside especially.

STRAWBERRIES.—In gardens in the more open parts of towns Strawberry plants do fairly well. We must not expect them to be as successful as in the country districts. Many owners of town gardens like to have a bed of Strawberries, and those who contemplate putting in young plants must deeply dig a border at once and put in some rotted manure. In next week's issue I will tell how to do the planting. AVON.

3.—A 5-INCH POT FILLED WITH THE PREPARED CUTTINGS.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

KEEP all flower-beds clean and free from weeds, decayed leaves and flowers, and peg down Verbenas, Petunias and other plants which require similar treatment.

Hollyhocks, Palms, Dracænas, Dahlias and other tall subjects needing supports should receive attention to prevent damage by wind and rain. Roses and other plants trained to trellises and walls must be duly thinned and kept within bounds, but avoid, as far as possible, any formality. Ornamental trees and shrubs must be attended to at this season, and any which may be crowding and injuring their neighbours should be thinned or cut back so that they stand clear of each other.

Wallflowers, Forget-me-nots and other plants for spring flowering which have been sown in beds will need room, and should at once receive attention. If planted in beds in an open position 6 inches or 8 inches apart, they should develop into very useful plants by the time they will be required to take the places of the summer flowers. If the weather should prove dry and hot, notwithstanding the amount of rain experienced, large shrubs and ornamental trees which were removed last winter or spring ought to be thoroughly examined, and if the roots near the stems are requiring moisture, as is frequently the case, deluge them with water, taking care that it penetrates the soil to a good depth.

HARDY FRUITS.

Peaches and Nectarines are this season very abundant and should be well thinned, the young shoots and foliage being kept clean and free from red spider and other insects, which this season have been exceedingly troublesome, and, coming so early and the weather being cold, the trees at one time made but little headway; but with repeated applications of quassia extract, using this with reasonable force through the syringe, our trees are now fairly free and clean. Insecticides should not be applied after the fruits begin to change colour, and both fruit and foliage should be thoroughly washed with clean water, so that the flavour may not be impaired.

Raspberries.—The roots of these which lie so near to the surface, and especially on light soils, will require a good heavy mulching with decayed manure and the soil heavily watered to encourage the growth for next year's fruiting. As the crops of fruit are cleared, no time should be lost in getting the old canes removed, as they are of no further use. Continue the summer pruning of all fruit trees, but do not shorten this year's growth too severely, being careful to preserve the most suitable shoots when required for filling up space, and also for grafts of any particular variety. Buds may now be put in if necessary (where grafts failed) on suitable new growths.

KITCHEN GARDEN.

Sow large breadths of Turnips and Spinach, and raise good supplies of Endive, Lettuce and other salads. More Cabbages may be sown, so that ample plants to meet the demand are available. As fast as the different crops are past, clear the ground and refill with such crops as Savoys and Cabbages. Late Broccoli and many other kinds of plants withstand severe weather better if grown on firm land. Earth up Celery as required, first soaking the roots with water. Do not draw the earth to the plants till the hearts are perfectly dry, and then not too much at one time.

H. MARKHAM.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

THE BULB GARDEN.

HARDY BULBOUS PLANTS, such as Narcissi, Tulips, Scillas, Leucojums, Grape and Feather Hyacinths, as well as many others that increase freely, deteriorate if left too long undisturbed. Where lifting and replanting is decided upon, the present, when root vitality is at its lowest, is the most suitable time to carry out the work. Having raised the clumps carefully, the bulbs or roots may be separated, retaining the largest for planting again in prominent positions, while the inferior may be placed in nursery lines to gain size and strength, or, if in great abundance, may be transferred direct to positions outside the garden, such as the margins of woodland walks or where the vegetation around and above is not too dense through the woods themselves.

Planting.—The time for doing this is unimportant, as the bulbs may be kept in a cool store for several weeks without harm, but the raising should be done before growth recommences.

INDOOR FRUITS.

Vines.—The foliage of these should be looked over once a week, and a shoot here and another there removed to prevent overcrowding or burning through contact with the glass.

Black Grapes are considered to colour best under a fairly thick canopy of foliage, while the white section, more especially Muscat of Alexandria, obtain the desired amber tint more fully when slightly exposed, through the foliage being drawn aside, so that sunlight may play around the bunches. Sudden exposure in this way must, however, be guarded against, or the end in view will be defeated by the berries becoming brown instead of the amber shade.

Figs.—To have these at their best they must ripen fully upon the tree; at any rate, the ripening process must be well advanced before gathering takes place, or loss of flavour and appearance will be more or less in evidence. On the other hand, no fruit is more apt to split than the Fig, and although by some the fruits thus marred in appearance are considered perfection in flavour, on the whole sound fruits are preferred to form a dish. In bright, dry weather trouble of this kind is less experienced, but a change from this to dampness accelerates the evil and necessitates frequent inspection of the crop.

HARDY FRUIT.

Strawberries.—In recent years the culture of this highly esteemed fruit in private gardens has undergone a change, the earliest and best fruits being obtained from plants layered and planted the season previous. Plants layered in small pots or turves, as advised some time ago, will now be rooted, and if the site for the plantation is not already prepared by manuring and digging, no time should be lost in doing this, so that all may be in readiness for the planting. In the open trenching two or more spades deep may be done with advantage, but on fruit tree borders ordinary digging must suffice, and on this account the annual system of culture has its advantages. In planting first make the newly dug ground firm, and mark it in lines about 30 inches apart, placing the plants 12 inches from each other. After planting attend carefully to watering, and frequently stir the surface soil with the hoe, so that the plant may have the fullest opportunity to become established before winter.

KITCHEN GARDEN.

Cabbage Seed for autumn planting should now be sown thinly upon a well-exposed situation, so that the plants may make sturdy growth from the start.

Broccoli and all kinds of winter and spring forms of green vegetables should be planted as fast as ground, until now occupied with other crops, becomes vacant.

JAMES DAY.
(Gardener to Sir Malcolm McEacharn.)
Galloway House, Garlieston, Wigtownshire.

NEW PLANTS.

ODONTOGLOSSUM ARDENTISSIMUM STARLIGHT (O. Pescatorei × O. crispum Starlight).—A large-flowered and handsome variety, with many of the characteristics of O. crispum Starlight, the flowers being copiously freckled with reddish purple spots. The shapely lip is white and crimson spotted. Shown by Messrs. Sander and Son, St. Albans. Award of merit.

Spathoglottis plicata alba.—A very pretty variety, having an erect raceme of pure white flowers tinged at the base with yellow. Shown by Sir Jeremiah Colman, Gatton Park. Award of merit.

Both the above were shown before the Orchid committee of the Royal Horticultural Society on the 20th ult., when the awards were made.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Cutting down Pampas Grass (*Constant Reader*).—If the plants are cut low down during the autumn and the winter is severe, or with much snow and wet, it is highly probable that the spring will find them quite dead, and, indeed, this mistaken notion has caused the death of many a fine specimen. The best way to treat the plants is to drive a few stakes round about them, gathering the plants into pyramid form, and then, drawing the stakes about them, form a thatch to throw off snow and wet. This and a mulch of manure about the base will keep them safe. The Pampas Grass is too valuable a plant to risk, though in the more favoured parts of the country it flourishes without the least protection in winter.

Lilium diseased (*Lilium*).—The central core of the bulb was quite rotten, the direct result of a treatment to which the bulbs are subjected in Japan prior to shipment to this country. In preparation for the long journey by sea the bulbs are lifted and denuded of all their roots, finally being moulded in tempered clay prior to packing in close cases for despatch to England and other places. This is done so that the bulbs will present a fresh-looking appearance on arrival; but by reason of the confined moisture, the root mutilation and long sea voyage, a fungoid disease sets up and destroys the bulbs wholesale. Unfortunately, this state of things is not fully revealed till the bulbs are again in touch with the soil, though large numbers are a mass of pulp on arrival here. When once the bulbs are smitten no cultural treatment will avail anything, and the root-fibres, young and old, having been cut ruthlessly away in Japan and no more appearing, the bulbs perish in their thousands as soon as they are placed in the ground.

Good large-cupped Daffodils (*Plural*).—We have consulted a good many lists, and find there are very few bulbs indeed at 2s. or less better than those that you have already. You have an excellent little collection, and without considerably enlarging your limit of price we fail to see how you can do much to improve it. However, we suggest as a white self Mountain Maid at 3s.; as bicolors, Magpie, price about 2s. 6d.; Constellation, about 6d. to 8d.; and Mme. de Graaff, about 2d. As to yellow selfs, if

you have not Autocrat (price 1d.), get it; it is one of the very best, unless you are prepared to buy Homespun (21s.). If a red cup or a red-edged cup is wanted, Albatross (1s. 3d.), Flamingo (1s.), Dorothy Wemyss (very late, but good, about 1s.) or Crown Prince (6d.) are good varieties to include.

TREES AND SHRUBS.

Plane leaves diseased (*E. N., Grays*).—The leaves of the Plane are attacked by the fungus Glocosporium nervisequum, which is producing the spores by which it is spread in great abundance on the discoloured patches along the nerves of the leaf. The mycelium of the fungus spreads into the leaf-stalks and causes the early fall of the foliage. There appears to be no remedy so far discovered. The diseased leaves should not be allowed to lie upon the ground, as from them the spores may be blown or otherwise carried to other trees.

Hedge for a garden (*M.*).—If you wish for an uncommon hedge along the bottom of your garden and you can allow a fair amount of room for spreading, you could not do better than plant Berberis stenophylla. This is evergreen and one of the most lovely shrubs imaginable when in flower. To be seen at its best it must be allowed to grow freely and in an informal manner; consequently, if you desire a clipped hedge you had better plant Holly or Yew. The side evergreen hedges would look better if both were the same thing. If you wish to do so, you could make both of Holly or Yew and use the Oak at the bottom. Variegated sorts could be used were it not for the second hedges; but the dark green of common Holly, Yew or Oak would form a better background for the Roses. The Penzance Briars would do well in the position you name, but do not allow them to get very high; cut the strong shoots halfway back in the summer. For the other hedges you might use Rosa rugosa hybrids. A first-rate white one with large, fragrant, semi-double flowers is Blanc Double de Coubert, and a red one is Mrs. Anthony Waterer. If, however, you prefer rambling sorts, Dorothy Perkins and Hiawatha could be planted. It must, however, be remembered that both are very rampant growers, and there would be more likelihood of them interfering with the hedge than the hedge with them. The hedge can easily be kept from overshadowing the Roses by clipping. A hedge of mixed Roses, such as you suggest, could be used, but you will probably find single sorts better.

Akebia not flowering (*Newcastle*).—If Akebia quinata is planted in the shade or growing in a very luxuriant manner it often fails to flower. In order to induce it to bloom freely it is very necessary that the wood be well ripened. For this reason it, as a rule, will flower best when trained to a south wall or given a good light position in the greenhouse. The drooping referred to in your letter is probably caused by dryness at the roots. We are sorry that we do not know where you can obtain a Vinegar Plant. It may sometimes be met with in country districts. Perhaps some reader of THE GARDEN can oblige with the information.

Oak attacked by insect (*G. F. Brown*).—It is difficult to advise you respecting the insect which attacks your Oak without knowing what the insect is. The following insecticide will, however, suffice for ordinary aphis: Mix a quarter of a pound of soft soap into a liquid in a pint of boiling water, add half a pint of paraffin while hot, well stir and add to three gallons of soft water. With a syringe or spray, keeping well mixed, spray the tree with it. If the insects appear to eat the leaves, mix half an ounce of Paris green into a paste with a little water and then make up to six gallons with water and spray with the mixture. With the latter mixture be careful not to use it if you have any broken skin on your hands, for it is very poisonous.

THE GREENHOUSE.

Large Lobelia plants for next spring (*M. Upstein*).—Presumably the five dozen plants referred to by you are in pots, though on this point you say nothing. If so, cut off all the flowers, and when the plants break into growth after this operation it will be an easy matter to divide them, leaving a few roots on each piece. Then pot them in small pots and place in a frame, shading from bright sunshine till the roots take hold of the new soil. When this is the case the lights should be left off altogether. Do not let the plants flower. By the middle of August you should be again able to divide the plants and pot them into small pots, say, 3 inches or 3½ inches in diameter. As the growth will be young and vigorous, they will soon become established, and may be wintered in a good light position in the greenhouse. A free circulation of air should be given whenever possible, and watering must be very carefully done, for this Lobelia, from its dense, compact growth, is liable to damp during wet weather. In March the plants may be shifted into larger pots, when they will come on quickly and be in flower by bedding-out time. Even if the plants are bedded out now you must be prepared to sacrifice this season's display in order to work up so large a stock. In a close propagating-case cuttings formed of the young growing (not flowering) shoots will root readily, and a considerable number can be obtained in this way.

Orchid leaves spotted (*S. Walker*).—There is no doubt that the brown spots and patches on the mature leaves of the Cœlogyne are caused by an excess of atmospheric moisture combined with too low a temperature.

ROSE GARDEN.

Rose foliage diseased (*E. M. Laing*).—We are glad you find THE GARDEN so helpful to you. From your description the disease upon your Roses is that known as black spot. There is no fungicide that will cure it when once it has got a hold upon the plants. The best plan is to pick off the diseased leaves and also those upon the ground and burn them. During the resting season have an inch of the surface soil removed and burnt, replacing with sweet soil. Immediately after pruning commence to spray the shoots with sulphide of potassium or Bordeaux mixture, and continue to do this thoroughly right through the season. We have not found Roses on their own roots so prone to this disease as budded plants. If your soil is at all deficient in drainage you should have this seen to, as stagnant water would be a means of extending the trouble. Lime in the soil has a very beneficial effect upon the plants. This can be applied as a surface-dressing and well hoed in. Give the plants plenty of space to grow, allowing air to circulate freely among them, and keep the surface soil well tilled and hoed at frequent intervals.

Rose K. A. Victoria with broken bud (*H. A. Fordham*).—Some of the Rose beetles which carry out their mischievous work by night will often sever the buds in the manner described. We advise you to make a search each evening with a lantern for any such marauders and quickly despatch them. The Rose has probably more enemies, insectivorous and fungoid, than any other plant, but by diligence they can be overcome. We hope you will be successful in your efforts in Rose-growing, for yours is not an ideal district, although we have seen some very creditable specimens grown in that part of Essex.

Length to cut Rose blooms (*G. H. B.*).—As a rule, a length of 6 inches to 7 inches may safely be adopted when cutting Roses, but occasionally a greater length is permissible. If the plant carried several shoots, each having a bloom or bud, one might very well cut one or two of such shoots some 12 inches in length. In reply to your second query, a capital book on pruning Roses can be obtained from the National Rose Society, but it must be through a member of that society. The price is 2s. 6d. "Roses and Rose Culture," by William Paul, price 1s., is a cheap and excellent little work for the beginner and can be obtained from any bookstall. A more expensive and more comprehensive book is "Roses for English Gardens," obtainable from this office.

Wichuraiana Roses in pots (*C. H.*).—These Roses should be encouraged to make good growth during the early summer, so that the shoots may be well ripened in autumn. It is upon the one and two year old wood that the grower depends for his blooms the following spring. You do not say what size plants yours are or how long they have been in pots. When the pots are full of roots they should be repotted into a larger-sized pot, but not over-potted. Usually these Roses bloom profusely in pots of about 10 inches in diameter, and it is well to have the pots rather too small than too large. Tie the growths up to a strong stake, or train them on the roof of the greenhouse. If on a stake, give them plenty of space to develop. Keep the house rather close, only giving air on hot days, and afford plenty of moisture to the roots and syringe the growths as well. On the paths of the greenhouse water should be sprinkled frequently on bright days. By the autumn the plants will have made growths from 10 feet to 20 feet in length. Remove them to a sunny spot outdoors by the end of August, and keep them there until the end of October, when they should be removed to a cold greenhouse. If you desire to force the plants to bloom early in the year, they should be allowed about three months from the time of pruning to the flowering. This would be in a very moderate heat, starting, say, at about 45° at night and never more than about 55° at night. The pruning will merely consist of shortening back the lateral growths to one or two eyes and the unripened ends of the long growths. They may now either be grown in a pillar form or twined round four sticks stuck in the pot; or you can train them into almost any shape desired. This is best done when in the dormant state. A top-dressing of some good fertiliser or bone-meal should be given after the pruning, and as new growths increase in strength some liquid manure may be given. When growth is very active the pots need careful watching, for they will often require watering three or four times a day. In reply to your second query, we may say that the treatment as to growing on the weeping Roses in pots will be very similar to that detailed above, excepting, of course, the growths are allowed to droop. These should be very sparingly pruned until they have developed good, large heads: then the old wood is removed and replaced by the new. Hoops may be inserted under the heads to keep growths away from the stem and also to encourage a more uniform growth. When these weeping Roses require repotting (which would be when the pots are full of roots), the work must be done most carefully, so that the ball of earth is not broken much. Often standard Roses in pots are not repotted for three or four years, but they need frequent top-dressings of good compost in which some Clay's Fertilizer or other good manure has been added.

FRUIT GARDEN.

Peach leaves for inspection (*W. R.*).—The Peach leaves are affected with a disease called "shot-hole," on account of the dropping out of the part of the leaf attacked by a fungus. The fungus is Cercospora circumscissa, and produces its spores upon the portion of the leaf that drops out. The spread of the disease is effected by means of these spores, and the only means of checking it is to cover the leaves with a thin film of a substance that will prevent the germination of the spores. Peach foliage being very delicate, ammoniacal copper carbonate is to be recommeneed in place of Bordeaux mixture. This is made by making 5oz. of copper carbonate into a thin paste with water, adding three pints of the strongest ammonia and diluting the whole with water to make forty-five gallons. It should be sprayed on as a very fine spray.

Pear and Fig trees (*W. R. G., Dublin*).—We are glad to hear that the suggestions we had the pleasure of making to you last autumn *re* the treatment of your neglected Fig and Pear trees have been of some help to you. As regards the Fig tree, if you will persevere in the treatment indicated, we have no doubt that the improvement will be progressive and permanent, and that instead of the dozen fruits you have this year you will have more than double next year. The great thing to see to is to thin out the trees in summer of the weak and useless growths the trees make, which prevent the stronger shoots from exposure to plenty of sunlight and air, so necessary for the proper ripening of the fruit-bearing shoots. It is on these shoots that the next year's crop depends, and it is frequently we see one of those branches bearing from three to six well-developed and perfect fruits on one branch. As regards your Pear tree, we advise you to have it root-pruned in the autumn as soon as the leaves have fallen. The effect of this will be to reduce the density of wood and foliage growth, and to promote the formation of more and better developed and ripened wood-buds. It is not unusual for the Pear to bear a second crop of fruit, but as a rule the size and quality are not so good.

Gooseberry bushes attacked (*Dr. E.*).—These are not attacked by the American Gooseberry mildew, but by Gooseberry red spider. They should be sprayed with a solution of 1oz. of potassium sulphide in three gallons of water.

Gooseberry leaves for inspection (*A. G.*).—The Gooseberry leaf is not attacked by the American Gooseberry mildew. The blistering and reddish coloration of the Currant leaf is due to the attack upon it of the Currant aphis (Rhopalosiphon ribis). The bushes should

be sprayed very early in the season with paraffin emulsion or with quassia and soft soap.

MISCELLANEOUS.

Names of plants.—*Mrs. Culross.*—1, Mme. d'Arblay; 2, Celestial, known as Maiden's Blush, but it differs and is better than the true variety of Maiden's Blush.——*Heather.*—Celestial.——*Mrs. Batt.*—1, Senecio species, leaves required for name; 2, send when in flower; 3, Aster foliaceus Burkei; 4, Helenium species, leaves and better flowers required; 5, Philadelphus grandiflorus; 6, Tradescantia virginiana; 7, Philadelphus coronarius. ——*M.*—Galium verum (Lady's Bedstraw).——*Spondon.*—Libertia formosa.——*Gerald.*—Sidalcea mariana.——*F. H.*—Sweet Peas: 1, Gladys Unwin; 2, John Ingman; 3, not recognised; 4, possibly Helen Lewis; 5, Queen Alexandra; 6, Agnes Johnstone; 7, Mrs. Walter Wright; 8, Brilliant Blue; 9, not recognised. Roses: 1, Liberty; 2. Comtesse du Cayla; 3, Caroline Testout. This is as near as we can say, as the blooms had fallen and you sent no foliage or growth to aid us in their identification.——*Byfleet.*—The Rose is Mildred Grant. The specimens sent were very good, although this Rose is an exceptionally large variety. Are you certain the Roses are on their own roots and not budded? If on their own roots, it would appear that you have discovered the correct way of growing this rather erratic Rose.——*J. A.*—Mesembryanthemum species; flowers required for determination.——*A. B. Stevenson.*—The specimen cannot be named without flowers; please send again when in flower.

"THE GARDEN" FLOWER SHOW.

(Continued from Supplement.)

VEGETABLES.

In Class 60, for six dishes of Peas, distinct, first prize was won by Mr. Mark Webster, gardener to E. J. Preston, Esq., Beckenham, with an excellent lot; second, Mr. Thomas Grant, High Park Gardens, Stanford; third, Mr. R. Brown, St. Leonard's Hill, Windsor.

Class 61 was for three dishes of Peas, first prize going to Mr. Mark Webster, gardener to E. J. Preston, Esq., Kelsey Park, Beckenham; second, Mr. R. Staward, Panshanger; and third, Mr. G. Horlock, gardener to Dr. Walters, Farnham.

Class 62, for one dish of Peas: First, Mr. Mark Webster, gardener to E. J. Preston, Esq., Kelsey Park, Beckenham, with Duke of Albany; second, H. T. Tatham, Esq., Elstree, Herts, with Quite Content; third, Miss Colvin, Ketton Hall Gardens, Ketton. All the classes for Peas were very keenly contested.

In Class 63, for three dishes of Potatoes, Mr. T. Stevenson was first; Mr. A. Gentle, second; and Mr. W. Waterton, third, a very fine lot of tubers being staged throughout the whole class.

FIRST PRIZE COLLECTION OF SIX DISHES OF FRUIT (AMATEURS' SECTION).
(Shown by Mr. F. Hayter, The Lodge, Fieldhurst, Addlestone, Surrey.)

In Class 64, for one dish of Potatoes, nine tubers, first prize was awarded to Mr. A. Gentle, Little Gaddesdon, Berkhamsted, for a superb dish of Duke of York; second to Mr. W. Waterton, for Empress; and third to Mr. E. Montague, gardener to Colonel Biddulph, Ham, Richmond. There were many fine dishes in this class, there being twenty competitors.

Class 65 was for one dish of Tomatoes, first prize being well won by H. T. Tatham, Esq; second, Mr. J. Tomlin; and third, Mr. A. E. Usher.

In Class 66, for a brace of Cucumbers, the first and second prizes went respectively to Mr. J. Tomlin and Mr. E. Clements.

Class 67 was for nine autumn-sown Onions, Mr. A. E. Usher being first; William C. White, Esq., second; and Mr. R. Staward third.

In Class 68, for nine spring-sown Onions, first honours went to E. Watford, Esq., Weybridge; second to Mr. R. Staward; and third to H. T. Tatham, Esq.

Class 69 was for two Vegetable Marrows, and the prizes were awarded as follows: First, Mr. A. E. Usher; second, Mr. W. Waterton; third, Mr R. Staward.

In Class 70, for one bunch of Intermediate Carrots, A. H. Boys, Esq., was first and Mr. R. Staward second.

Class 71 was for one bunch of stump-rooted Carrots, first prize going to A. H. Boys, Esq.; second to Mr. R. Brown; and third to H. T. Tatham, Esq.

In Class 72, for three Beets, tap-rooted, H. T. Tatham, Esq., Mr. J. T. Tubb and Mr. Mark Webster were the prize-winners in the order named.

In Class 73, for three Beets, Turnip-rooted, first prize went to Mr. A. E. Usher; second to Mr. W. Waterton; and third to Mr. W. G. Child.

FIRST PRIZE COLLECTION OF SIX KINDS OF VEGETABLES (AMATEURS' SECTION).
(Shown by Mr. A. Childs.)

LADIES' CLASSES.

For a table decoration of Roses, first honours fell to Mrs. A. Robinson, Carshalton, who had a sweetly pretty arrangement; second, Miss Adelaide F. Harwood, Colchester; third, Mrs. Gentle, Little Gaddesdon, Berkhamsted, whose Roses were very beautiful.

For a table decoration of any flowers, Mrs. A. Robinson, Carshalton, Surrey, was again first with Lilium speciosum and Grasses; second, Mrs. Edwards, Warwick Terrace, Sydenham, who arranged pink and cream Sweet Peas very tastefully; third, Mrs. Thomas Aley, East Finchley.

For a basket of any flowers, Mrs. R. H. Tennant, Goodmayes, Essex, was first with a charming arrangement of pink Carnations and Gladioli The Bride. Mrs. Edwards, Sydenham; and Mrs. A. Swann, Billericay, Essex, followed in the order named.

First prize for a bouquet of any flowers was won by Mrs. Tennant; second, Mrs. Crease; third, Miss A. F. Harwood.

For a lady's spray of any flowers, Mrs. H. L. Sell, Luton; Mrs. Swann, Billericay, Essex; and Miss Harwood, Colchester, won in the order named; and for a gentleman's buttonhole, any flowers, Mrs. H. L. Sell; Mrs. H. J. Brill, Preston Park, Brighton; and Mrs. Gentle, Little Gaddesdon, were the respective winners.

MEDAL AWARDS.

The gold medal for the best exhibit in the whole show was awarded to H. T. Tatham, Esq., Kendall Hall, Elstree (gardener, Mr. William Gaiger), for a superb collection of twelve distinct kinds of vegetables.

Four competitors tied for the silver medal offered to the winner of the most first prizes in the amateur section, and a medal will, therefore, be presented to each of the following: Mr. W. G. Cramp, Fallsbrook Road, Streatham; Mr. R. Foley Hobbs, Thorneloe, Worcester; Mr. H. Childs, Alresford, Hants; and Dr. Boys, The Grange, St. Albans. The silver medal in the open section was won by Mr. A. E. Usher, gardener to Sir Randolf Baker, Bart., Ranston, Blandford.

The produce not claimed by exhibitors was sent to the following hospitals: The Gordon Hospital, Vauxhall Bridge Road; The Grosvenor Hospital, Vincent Square; and the Westminster Hospital.

Several exhibits arrived at the Hall after judging had commenced, and these, of course, could not be staged.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C

INSECT FRIENDS AND FOES

Of the Garden, and the Best Means of Exterminating the Latter.

(*First Prize Essay.*)

DURING the last few years, much valuable knowledge of insect-life injurious to garden crops has been obtained and given through the Press to garden-lovers. A perusal of the "Answers to Correspondents" columns of The Garden reveals an eager desire on the part of readers to benefit by this knowledge in fighting these pests; but the greatest difficulty is to know which is the best remedy and how and when to apply it.

The following insecticides I can confidently recommend, having proved them to be safe and efficacious: Arsenate of lead paste (quite safe to use on the tenderest foliage and not easily washed off by rain), quassia extract, paraffin soap and nicotine emulsion.

Arsenate of lead and nicotine may be used together, but quassia must be used alone. A spraying-machine should be used for applying the insecticides, and it is important that a light but strong make, fitted with extension rods and a double nozzle, should be obtained. The Antipest, Vermorel, Enots and Four Oaks are all good types of machines.

Dealing with fruit trees first, we shall find that the larvæ of the winter, mottled umber and March moths are among the worst pests, for they quickly destroy foliage and blossom of any trees on which they are abundant. Besides Apple and stone fruit trees, they also attack Gooseberries and Currants. The females cannot fly, and therefore crawl up the tree-stems and lay their eggs on the branches during autumn and winter. To check their progress up trees with 2 feet or more of clear stem, grease-banding should be done, first putting on a grease-proof paper band 6 inches wide and securing both edges with raffia or string. Put the grease on half an inch thick and 2 inches wide, and renew it whenever it begins to dry until March.

Other serious caterpillar pests are those of the Codlin moth, which lays its eggs in the calyx of the young fruit, and the Apply sawfly, whose larvæ destroy the organs of fructification. In some seasons the tent caterpillars of the ermine and lackey moths are very numerous and do much damage to the foliage. The best remedy for all caterpillars is arsenate of lead, which should be sprayed over the trees just before and immediately after the blooming period. The Codlin moth caterpillar is the most difficult to kill, as the calyx soon closes up and prevents the wash penetrating to the young larvæ; but all fruit that falls off and is seen to be infected should be picked up and burned. Many larvæ may be caught by twisting old sacks round the forks of the trees, under which they pupate, and then burning the sacks at the end of the year.

The Apple-sucker, or psylla, is a small green insect which does much damage to the flowers by sucking the sap from the base of the trusses, and causes the blossoms to fall. Spray the trees just as the buds are opening in spring with nicotine or quassia. It is important to wait until the trusses are sufficiently forward for the liquid to run down to the base.

Another insect destructive to the blossoms is the larvæ of the Apple blossom weevil, as it also eats the organs of fructification. Shaking the branches over a sheet, as soon as the weevil makes its appearance in spring, and then destroying the pests, is the best way of dealing with it.

American blight is easily recognised by its woolly covering, and as soon as any is noticed brush the patches over with a little methylated spirit; but if many trees are badly infected spray heavily with strong paraffin emulsion.

There are several kinds of aphis, all of which do serious damage if left unchecked to all kinds of fruit trees. Spraying to be effectual must be done early, before any of the leaves are curled up by the insects. Just before and directly after blooming are the best times for the operations, using quassia extract or nicotine emulsion.

Bush fruit tree pests are more easily dealt with than those on tall trees. Of these the larvæ of the Currant and Gooseberry sawfly and magpie moths are the worst, those of the former being the most destructive, as they are most abundant, and they quickly defoliate the whole bush if left unchecked for a few days. Where only a few trees are attacked, hand-picking is best; but where there are many trees affected, and the fruit is not wanted until it is ripe, spraying with arsenate of lead is the quickest and surest method.

Red spider is a very common foe on many plants, but the species found on the Gooseberry is peculiar to that tree, and is found in enormous numbers in early spring. Spray in March and again early in May with paraffin emulsion, with ½oz. of liver of sulphur added to a gallon of wash.

The Black Currant mite is one of the most difficult pests to exterminate, and nothing at present is very effectual. Picking off infected buds in March, and then dusting with lime, one part, and sulphur, three parts, in April and May, have proved to be the best check. Raspberries and Loganberries are attacked by the Raspberry

beetle, whose larvæ eat the flower-buds and spoil much fruit. Spray with arsenate of lead in May.

Wasps prove troublesome during some seasons and may be the cause of great loss of fruit; but they may be trapped by placing jars of a mixture of beer and sugar among the branches of the trees they frequent. Scott's Wasp Destroyer is a useful remedy also if used according to directions. Nests should be sought for and destroyed by pouring tar in the hole at night and then digging out next day. All queen wasps seen about in the spring should be killed when possible.

Vegetable crops being annuals are more easily kept free from insect pests, as, if badly infected, they may be pulled up and burned. The Celery fly, whose larvæ do great damage to the foliage of Celery by tunnelling between the membranes of the leaves; the Onion fly and the Carrot fly, whose larvæ eat the bulbs or roots of the plants, are among the worst enemies. The best remedy for each is to spray the plants with quassia each week during their early stages of growth. This acts as a deterrent to the fly laying its eggs.

The Turnip flea beetle is always with us and is difficult to exterminate; but I have found dusting the seedlings with slaked lime to be the most effectual remedy.

Wireworm is a very destructive foe, and it needs persistent attention to keep it in check. Nothing is better than trapping them by slices of Potato or Carrot and destroying them as they are caught.

Slugs may be kept away from plants by frequent dustings of soot and also lime. For seedlings it is best to water all around them with lime-water. Aphis and caterpillars on Roses and other plants can be destroyed by quassia and arsenate of lead emulsions. Earwigs are easily trapped by putting an inverted flower-pot, with a little dry moss in the bottom, on a stake, to which the plant is tied, or by tying pieces of hollow Bean-stalk or canes among the foliage. Look the traps over each morning.

Winter spraying with caustic soda for fruit trees has not been recommended, as washes containing either that or carbolic have not proved effectual. They are useful only in killing lichen, which is often a harbour for insects; but even for that purpose the lime and salt wash is far superior, for if put on late in March it will kill many insects' eggs, including those of the psylla. The following are the proper proportions: 50lb. of fresh slaked lime (chalk lime) in 20 gallons of water, to which add 7lb. of salt dissolved in 5 gallons of water; spray on while quite hot.

Insect friends of the garden are few, but among them I think the bees are most important, as many flowers are dependent on their visits for the fertilisation of their ovules, and no doubt many of the "chance" crosses in the vegetable kingdom are due to this agency. A very useful insect, though not esteemed by the housewife, is the spider, for by the use of its web many thousands of insects are caught. The ladybird is also a little friend which should always be protected from the destroyer's hand, as it lives chiefly on aphides of all descriptions.

Desford, Leicester. F. LANSDELL.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

*** *The dates given below are those supplied by the respective Secretaries.*

August 17.—Royal Horticultural Society's Exhibition of Flowers and Fruit, Vincent Square, Westminster, 1—6 p.m. Lecture at three o'clock on "Bees in Relation to Gardening," by Mr. Walter F. Reid, F.I.S., F.C.S.

August 18.—Shrewsbury Horticultural Society's Exhibition (two days).

August 19.—Royal Horticultural Society of Aberdeen's Show (three days).

Prizes at "The Garden" Flower Show.—In reply to several correspondents *re* the payment of prizes, the money will be sent by post as soon as the books can be made up.

The Essex County Gardens.—Early in August we had the pleasure of visiting the gardens of the Essex County Council at Chelmsford, and were greatly surprised at the vast improvements which have been made there during the last few years. Formed some twelve years ago from an open and rough field, the County Council now have an area of some three acres clothed with healthy fruit trees, vegetables and flowers, the whole presenting a picture of prosperity and beauty. We have rarely seen Pear trees cropping so well as some of the goblet-shaped and bush specimens are doing here this year, and in some instances there are some remarkably good crops of Apples. Roses luxuriate, Crimson Rambler producing its huge trusses of flowers in great abundance. Were a pergola formed over the long, straight path at the entrance and clothed with a representative collection of rambler Roses, it would form at once a most beautiful and instructive feature. All the vegetable crops looked remarkably well, and the whole gardens reflected great credit on the able head-gardener, Mr. W. Aylett.

Best bedding Violas.—On the invitation of Messrs. Dobbie and Co., a party of some twenty-seven members of the Scottish Pansy and Viola Association visited their nurseries at Rothesay on Saturday, July 31, for the purpose of inspecting a trial of eighty varieties of bedding Violas. The trial consisted of practically the same varieties as were tested last year at Messrs. Dobbie and Co.'s seed grounds in Essex, and the object was to ascertain whether the Scottish experts might come to any conclusions different from the Southern enthusiasts. Instead of being planted in autumn, as were last year's trials, the Violas in this instance were not, owing to weather conditions, put into their quarters till the end of April. The border selected for the trial was somewhat heavy in character, and the abnormal rainfall during July was rather against some of the varieties; consequently the trial lines were not so regular as might have been expected under more favourable conditions. The results which are given below will show that, on the whole, the decisions in the English trials are pretty well borne out by the Scottish jurors. White, rayless.—First, Cygnet; second, Mrs. H. Pearce. White, slightly rayed.—First, Countess of Hopetoun; second, White Empress. White, rayed.—First, Bethea; second, Alexandra. Cream shades.—First, Iliffe; second, Sylvia. Primrose shades.—First, Primrose Dame; second, Maggie Clunas. Yellow, rayless.—First, A. J. Rowberry; second, Wm. Lockwood. Yellow, slightly rayed.—First, Redbraes Yellow; second, Kingcup. Yellow, rayed.—First, Canary; second, Grievei. Blue, dark.—First, Archie Grant; second, Edina. Blue, light.—First, Lady Marjory; second, Ithuriel. Lilac and lavender.—First, Favourite and Kitty Bell; second, Florizel. Mauve.—First, Mauve Queen; second, Lady Warwick. Mauve, dark.—First, Jubilee; second, Councillor Watters. Bronze.—First, Redbraes Bronze; second, Bronze Kintore. Edged varieties.—First, Lady Grant; second, White Duchess. Crimson and rose.—First, Wm. Niel; second, Mrs. J. H. Rowland. Three best whites in above classes.—First, Cygnet; second, Bethea; third, Mrs. Pearce. Three best yellows in above classes.—First, Canary; second, Primrose Dame; third, Grievei. Three best mauves and lilacs in above classes.—First, Mauve Queen; second, Favourite; third, Kitty Bell. Two best bedders in other fancy types.—First, Mrs. Chichester; second, Agnes Kay. On the conclusion of the inspection the party made a round of the nursery grounds and found much to interest them in the large breadths of Roses, Dahlias, Pansies, Violas and Sweet Peas grown by the firm. Messrs. Dobbie and Co. afterwards entertained the visitors in the Hotel Madeira, and the usual compliments were exchanged. The weather was splendid and everyone enjoyed the day's outing. Many had come long distances, and the company included Major Milne, president, and Mr. John Smellie, secretary, besides the leading specialists of the East and West of Scotland.

Distinguished visitors at Coggeshall.—During the past few days distinguished agriculturists and savants from France and Belgium have visited Coggeshall for the purpose of inspecting the extensive seed farms of Messrs. John K. King and Sons at Coggeshall, Chappel and Colne. The visitors were conducted over the farms and experimental grounds by Mr. Herbert King and Mr. J. H. Millard, the firm's general manager. They were greatly interested and impressed with everything they saw, especially the large acreages of agricultural and vegetable seeds and the improved varieties of pedigree cereals, while the large cultivation of giant-flowered Sweet Peas and the trials on their experimental grounds were greatly admired. The visitors were entertained during their stay at Orchard House by Mr. and Mrs. Herbert King.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Spanish Irises in a Scottish garden.—I send you a photograph of Spanish Irises at present (July 27) in full bloom in my garden. They were planted four years ago, 3 inches or 4 inches apart, in good rich soil in a Rose-bed, and have never been lifted. The flowers are of great beauty, and embrace all the shades of blue, purple, violet, yellow and white. As Spanish Irises are unsurpassed in colour by any other hardy flowers and are cheap, they should be bought in quantity and grown in large masses. They should be planted in good rich soil and mulched over with farmyard manure during the winter months. To bring their colours out well plant them where they will be fully exposed to the sun. Once planted, do not lift them for many years—that is, until the soil has exhausted itself. If lifted the bulbs should not be kept long out of the ground, as they begin to grow immediately the flowers have faded. For table decoration they are most useful, and as decorative plants in the garden, if grown as I have stated, they have few, if any, equals. Their delicate and numerous colours and beautiful blending remind me strongly of gardens in Japan I visited some years ago.—JOHN MCWATT, *Morelands, Duns.*

Actinidia chinensis.—A specimen of this climber planted in a fruit house has recently flowered in these gardens. The authorities at Kew very courteously inform me that the species does not appear to have produced flowers previously in this country. Messrs. J. Veitch and Sons of Chelsea, from whom the plant was purchased, confirm this. A. chinensis is already valued for its noble foliage and the remarkable appearance of the young shoots, which are covered with red hairs. The flowers are about 1½ inches in diameter, and are borne in clusters of three or four in the axils of the leaves on the shorter growths. The petals are white, and surround a mass of golden stamens, in which the numerous styles are practically hidden. The flower-stems are weak and short, and, consequently, almost covered by the leaves. It is, however, possible that this fault only occurs on young plants growing freely. Although an attempt was made to fertilise the flowers, all have dropped, and the real purpose (the production of a new and rare fruit) for which this plant was housed is for the present defeated. All descriptions of this plant I have yet seen state that the flowers are bright yellow; but all that opened on the plant in question were pure white, and only changed slightly to a dingy cream as the edges of the petals began to wither. The flowers on a small spray, however, which was cut and placed in

water in the evening, changed before morning to a pure buff yellow, a most charming colour. It would be interesting to know if the plants distributed by Messrs. J. Veitch and Sons were seedlings or otherwise. If from seed, it may be that both yellow and white varieties will occur. As far as the foliage and general habit go, this plant is exactly like those growing at Coombe Wood and quite distinct from A. kolomikta and A. volubilis, both of which are grown here on a pergola. In his lecture on "Some Lesser Known Japan Trees and Shrubs," Mr. J. H. Veitch states that Maries mentioned it in his letters to THE GARDEN, Vol. XXI. (1882), page 101. Perhaps some reader having complete volumes can favour us with his (Maries's) description of the flowers.—J. COMBER, *Nymans Gardens, Handcross.* [The mention made by Maries in Vol. XXI. of THE GARDEN is as follows: "Another fine climber is Actinidia kolomikta, with its long trailing branches covered with silvery white leaves, called by the Japanese 'Cats' Medicine,' and I find that cats in England are extremely fond of it. There is another Actinidia with edible fruit, which about October I found very good in flavour, something like a large green Gooseberry." From information received from another source, Actinidia chinensis is evidently dicœcious, *i.e.*, male and female flowers are borne on separate plants, and, apparently, any which have flowered in this country are males. Perhaps when female flowers are obtained they will prove to be of the desired yellow colour.—ED.]

A protest.—One feels a certain misgiving in casting blame upon such a splendid society as the Royal Horticultural, but surely it is unwise for the Council to fix such dates as the day after a Bank Holiday for their meetings. This not only means a great strain upon the nurserymen and their employés, but the Fellows are not gainers. A meeting was held on Tuesday, the 3rd inst., the day after the great public holiday of the year. Apparently no heed was taken of the trouble involved in bringing flowers to the hall on such a day as Monday in readiness for the Tuesday; and, of all days in the year, the lecturer was Mr. F. W. Moore, V.M.H., the esteemed curator of the Glasnevin Botanic Gardens, Dublin. This is a muddle, and an uninteresting muddle, too.—V.

"The Garden" Flower Show.—The huge success which seems to have attended the second of THE GARDEN Flower Shows indicates a possibility of its becoming in a few years one of such great dimensions as to render its housing a matter of extreme difficulty. Shows of this kind illustrate two things—first, the growth of horticulture among all classes of the community, but especially among the section classed as amateur. In the second place, it shows that it is but needful to offer good prizes and there will be no lack of competitors. Those are things which may be taken for granted; but the point which seems to need some consideration on the part of the promoters is that, by holding the exhibition each year at the same time, there is grave danger of its becoming stereotyped and formal, and also of appealing to or favouring just one section of THE GARDEN readers and of ignoring others. Societies are largely bound to fix their dates of shows each year at identical seasons, and if classes of schedules are to be made on behalf of certain flowers, such, for instance, as Roses, Sweet Peas, Carnations, Dahlias or Chrysanthemums, of necessity the dates of such shows must remain about the same from year to year. But the promoters of THE GARDEN Show are bound by no such conditions. They can fix their own seasons and prepare a schedule of classes suitable for the season without regard to any special considerations. Now I suggest that, both to give other sections of THE GARDEN'S many readers opportunities to exhibit products they cannot show in July, and also to vary the monotony necessarily incidental to shows of which the classes are practically the same from year to year, there be yearly alteration in the dates of the shows, one being held as hitherto in July and the alternate one in September. Flowers are beautiful, but they are not everything, although there is an abundance in the autumn. It is interesting to learn that there were 2,000 bunches of Sweet Peas at the recent show; but a wide representation of delicious fruit and of wholesome, healthy vegetables would have been more meritorious, if, from the floral point of view, less beautiful. But the great thing is to give each season and each section of horticultural products, as well as other competitors, chances not at present available. How deplorable it is to find that while London and neighbourhood is crowded with shows devoted to flowers in the summer, yet later there is not one devoted to food products, fruit and vegetables. Is it too much to ask the promoters of THE GARDEN Flower Show to seek to remedy this grave defect? This season, with one of the finest crops on record, we have no London fruit show, and in no respect even an exhibition of vegetables that can equal what may be seen at any rural village flower show just now in the kingdom. In making these suggestions I have no axes to grind. I simply wish to see fruits and vegetables securing their due meed of encouragement.—A. DEAN.

APPLE SHOOT ON THE RIGHT ATTACKED BY APHIS; ON THE LEFT A HEALTHY SHOOT IS SHOWN.

Aphis on fruit trees.—Aphis has been exceptionally troublesome this season on fruit trees. Apples in particular have suffered, the attack lasting much longer than is the case in most years. Usually the trees grow away from the pests in time, but this year the fly still had the best of it as late as the end of July, this, no doubt, being the result of the cold, unseasonable weather. Some varieties seem more prone to the attack than others, those with soft foliage suffering more than harder-leaved sorts, although the former are often the more vigorous. On a Sussex fruit farm I noticed Beauty of Bath, Bramley's Seedling, Worcester Pearmain and Lane's Prince Albert as very badly affected, while Cox's Orange Pippin, so liable to fungoid diseases, escaped comparatively free. That the mischief done is of a very serious nature there can be no doubt whatever. Not only is the growth of the young shoots badly checked for the season, but even in after years the branches do not lose the distorted shape induced by the attack. In the case of a young tree, it may sometimes be ruined altogether by a bad attack. On the farm mentioned it is certainly the worst of the insect pests. Caterpillars are easily destroyed by spraying, but the aphis this year defied repeated efforts. Spraying was done on most up-to-date lines. Of course, millions of the pests were killed, but some managed to get curled up in the leaves, in which position they always defy all measures. Trial has been made of many washes, including the most modern nicotine fluid, but nothing was found to be more effective than the old-fashioned and much cheaper quassia and soft soap wash. This was made strong; 12lb. of soap and 12lb. of quassia chips to every 100 gallons of water. In other hands, however, nicotine washes have proved superior to anything, and, of course, there are many proprietary washes which kill aphis when they reach them. The great thing is to begin early, before the insects get curled up in the leaves, which quickly happens. In gardens where there are not many trees it is wise to pull off the curled leaves and so remove the pests, but this can hardly be done in a market plantation. In the winter it will be found that most of the aphis-affected shoots will want pruning back hard. The illustration shows an affected shoot from a young Apple tree compared with a normal one.—E. M. B.

THE HOME OF THE STRAWBERRY.

(A VISIT TO LAXTON'S.)

THE name of Laxton at once reminds us of Strawberries, as the firm during the past twenty years has done so much to make these fruits popular. Even if they had only introduced Royal Sovereign it would have been a worthy achievement; but for some years other fruits, and also vegetables, have been taken in hand, and the Peas sent out by this firm have been excellent introductions. In Strawberries a distinct break has been made. For some time after the introduction of Royal Sovereign size was a cardinal point, but now this is only secondary, as we have Strawberries large enough for all purposes; flavour is the first consideration at the present time, and rightly so, as mere size without flavour is worthless, and by the introduction of varieties of specially good flavour we are much nearer the goal aimed at, viz., to get a free-growing Strawberry with the British Queen qualities.

The trio introduced recently with special points as regards flavour are Pineapple, Epicure and Connoisseur, and these may be termed medium growers. The first-named is probably the smallest; but it is only fair to add that I have always noticed in the trials of new varieties at Messrs. Laxton's that the fruits have not been thinned, whereas those who grow for exhibition thin freely; this makes much difference to the size and finish. Pineapple is noted for its distinct and good flavour, and is a very rich fruit, being conical in shape and bright scarlet in colour. When judging the other day in a large class, and one that should find more favour at exhibitions (a class for three dishes for flavour), Pineapple and Epicure, with British Queen, were the winners, and the two first-named were noticed for their fine finish. There was an absence of green fruits, and, considering the wet season, the flavour was excellent. Epicure is the result of crossing British Queen and Fillbasket; the last-named is noted for its heavy cropping, and with a good bit of Queen flavour an excellent Strawberry with a vigorous constitution is the result. Connoisseur differs from the above, both in colour and growth, the parents in this case being Scarlet Queen, an old but delicious fruit, but none too prolific, and the well-known Fillbasket, and the last-named has given its progeny good cropping qualities, while

the Queen gives the rich, luscious flavour so much liked. It is earlier than the others and a good forcing plant where flavour is the chief point; it grows well in heat.

Of other new forms, Utility and Rival are worth a note. Utility is the result of crossing a seedling with Waterloo, and it gives a crop of the best fruits of a paler colour than Waterloo and is a more robust grower. Rival is the result of crossing Givon's Late with Royal Sovereign.

A new Plum raised by Messrs. Laxton promises well, this being named Prosperity. It is the result of a cross between Grand Duke and The Czar Plum, and it may be termed an early Victoria, but a rounder, black fruit. Utility is an early red Plum, and is the result of crossing Jefferson with the Peach Plum. It has the flavour of Denniston's Superb, and is an excellent early dessert variety. A new Peach obtained by crossing the Early Rivers' Nectarine with Hale's Early Peach has splendid colour and sets freely; it is named Laxton's Advance. In the Orchid house were to be seen many other most interesting crosses, but lack of space does not allow of these being detailed.

In the open quarters a new berry called the Laxton Berry is a great favourite; this is sweeter than the Loganberry. A new Red Currant, Laxton's Perfection, is a very fine berry and a vigorous grower. There are some new crosses of the Loganberry and various kinds of Raspberries, Dewberries and other forms of Rubus. Some thirty acres of land are devoted to Strawberries, and over 60,000 plants of Royal Sovereign alone are rooted for forcing purposes; there are also some good breadths of the new Perpetual Strawberry.

The land devoted to young fruit trees, some forty acres, is covered with splendid material. In the strong red Bedford loam the trees make a firm growth and a mass of fibrous roots. There are some wonderful young standards of Newton Wonder, Cox's Orange Pippin and other well-known Apples; also some acres of bush trees on the Paradise stock. Gooseberries in the shape of double and treble cordons are in great demand here; the best-flavoured Gooseberries, such as Langley Gage, Pitmaston, Early Sulphur and Langley Beauty, were to be seen. Large breadths of Raspberries are grown, the most popular being Hornet, Superlative and Abundance, while the less-known but equally useful Semper Fidelis, a late red berry, is much grown for preserving or tarts. Carter's Prolific is a heavy cropper, and the new yellow Superlative promises well.

G. WYTHES.

"THE GARDEN" FLOWER SHOW.

LESSONS IT SHOULD TEACH.

IN every horticultural exhibition, be it great or small, if there were no lessons to be learned it would fail unmistakably in one direction at least, viz., that the basis of all such exhibitions should be of an educational character. In the forefront of not a few of the schedules emanating from rural districts we find words to the effect that the one object of the society is to promote the better cultivation of plants, fruits and flowers, in certain other instances to disseminate information by means of lectures, and in other ways to do what is possible to foster a greater love for the useful and beautiful of the vegetable kind. Thus it is that an exhibition possesses a great educational value of its own; becomes, as it were, a very school-house of learning—a sort of continuation class, or that higher education in matters horticultural—where everything being concentrated in one or more buildings, tents or marquees, men rub shoulders with men of higher intellects than themselves, and where greater brain-power or sounder judgment is brought to bear upon the work in hand, and which in no other walk of life, perhaps, or no other phase of workmanship displays itself to such advantage as in an exhibition such as that we are at the moment considering,

The productions of two gardens may be alike meritorious, and when raised from the soil or selected prior to starting for the place of exhibition there may not be the difference of the proverbial pin between them; but all this may be changed before the exhibition ground has been reached. A little undue haste at the end, a little carelessness or thoughtlessness in packing, whereby friction of two or more items is possible during transit, may mean all the difference between first and second prizes or even the first and nothing at all. The good gardener will see this at a glance, while the exhibitor who in true sportsmanlike character is capable of making much out of his losses—can, indeed, turn the failures of to-day into the successes of to-morrow—is he whose quick discernment and ready application will sooner or later place him with the best gardeners of his time. In just the same way the produce of two or more exhibitors may be for all practical purposes equal even when staged; and in such a case, when but a point or even half a point may make an enormous amount of difference either in prize-money or honour, the finishing touches to an arrangement, no matter of what kind—table decoration, bouquet, or the staging of vegetables or flowers — carry no inconsiderable weight with the judges, who, of necessity, regard each keenly contested group from its every point of view. Hence the spectacular effect of the whole group is a point decidedly in its favour, and all else being equal, would undoubtedly gain the leading prize. The displaying of vegetables or flowers or fruits in the exhibition arena need not be a lesser work of art than the displaying of such things upon canvas, and the gardener in his way can be—indeed is, in the highest walks of his profession—as much of an artist as he who depicts fruits or flowers in oils or water-colour drawings. In each case the operator knows the value of careful planning and still more careful work, and with these in hand, the finest results are the outcome of infinite pains in the execution of the work.

To what high excellence it is possible to attain in the exhibition hall was abundantly evidenced in THE GARDEN Show recently held in Vincent Square, more particularly with the collection of vegetables, which, in addition to the premier honour in its set, received also the gold medal for the greater honour of being the finest exhibit in the show. The exhibit in question was a superb one; the infinite pains that the artist had taken with his picture unmistakable. In similar degree, each displaying a profound knowledge and skill of the work in hand, were the premier exhibits of table decorations and Sweet Peas, the former characterised by good taste and sound judgment; the latter, evidencing all this, demonstrated cultural skill of a very high order. In the case of those classes devoted to annuals, some very excellent exhibits were staged, the leading collections running a close race. To some extent the same was true of the hardy herbaceous plants, though not in all, and there were obvious instances where greater pains in setting up or displaying the exhibits might have produced a far better result. I do not say that as a whole the exhibits of these flowers were not eminently satisfactory, or that they were not the equal of a large number of such things as frequently seen at such exhibitions; but is there any need to rest content on equality alone? No, surely not; or, if so, there is no promoting of that better cultivation of fruits and flowers which should ever rank as one of the chief functions of every such exhibition as that inaugurated but a year ago by the Proprietors of THE GARDEN.

The defects in the herbaceous section were primarily due to a little roughness and an absence of freshness in the exhibits; but in view of the very unfavourable weather conditions immediately preceding the date of the show, I refrain from a more extended criticism on this head. In one or two instances, however, exhibits were set up with the dead blossoms of two or three past days still upon them; and though I say at once that such exhibits were quite a rarity, their very existence but demonstrates that some exhibitors have not yet successfully passed an elementary training in such matters.

It was in the direction of packing that the more conspicuous errors were made, errors, fundamental and complete, that at once placed the competitor outside any possible hope of success. The placing of cut flowers in boxes much too large for their needs, unfixed and without the least sign of packing paper, thus subjecting these treasures to the tender mercies of unseeing and, possibly, uncaring postal or railway officials, was a grave mistake, and not less grave the tightly twisting up of beautiful Roses in tissue paper at a time when the petals were saturated with rain. In some of these latter the labour and care taken to ensure success were abundant, almost excessive, and had the petals been quite dry when so packed the blooms would have emerged in splendid condition from their packages.

SPANISH IRISES IN DR. MCWATT'S GARDEN AT MORELANDS, DUNS. (*See page 394.*)

The most grievous error of all, however, was the packing of choice flowers in all too frail boxes of cardboard, and some of these, when received, were not greatly unlike the collapsible opera-hat that may be sat on with impunity. Cardboard boxes, therefore, should never be used, but firm wooden boxes substituted in their stead. Rose blooms and Sweet Peas should never be packed tightly in paper when reeking with moisture; and flowers generally should not be allowed such liberty of action so that by friction the blooms are well-nigh unrecognisable when unpacked. On the other hand, some fruits, vegetables and flowers sent long distances were excellently packed and reflected the greatest credit on the senders. These, then, are the lessons — good and bad — of the successful exhibition just closed, and if they are taken to heart and rightly used for future guidance these notes will not have been written in vain.

E. H. JENKINS.

KITCHEN GARDEN.

TWO GOOD SUMMER CARROTS.

CARTER'S LONG FORCING AND IMPROVED EARLY HORN.

THE early Carrot occupies such an important place at this season of the year that a root which is sweet and a rapid grower is of great value. At THE GARDEN Show on the 28th ult. some splendid roots were staged in collections or otherwise, and for those who like small, sweet roots of these vegetables the Improved Early Horn is an excellent variety, as it takes up a very small space and is just the size one requires. I myself fail to see the value of huge Carrots, especially at this season, as often there is much core, which many persons dislike; the quicker vegetables are grown the better as regards flavour. The Early Horn is a great favourite with amateurs on account of its perfect shape and smoothness. The first-named, the Long Forcing, has the same excellent qualities, but a tapering root, and is of a deeper colour—a very distinct and early variety. I do not know of any variety that matures more rapidly, and it is an ideal frame Carrot on account of its small top growth. If young Carrots are required for a long season, by making three or four sowings during the year, say, February, April, June and August, the above will be found excellent for the purpose.

G. WITHERS.

THE ROSE GARDEN.

A FEW NOTES ON SOME OF THE NEWER ROSES.

LYON ROSE.—I think every rosarian will admit that this is a wonderful example of the work our great raisers are doing every day. In colour it is a blending of salmon, pink and yellow, producing a delightful effect. It is a strong grower and the blooms are of good shape.

THE RARE LILIUM MYRIOPHYLLUM.

(Natural size. See page 398.)

Grace Molyneux always comes good, and if its growths are thinned and its buds reduced it may be had large enough for exhibition. The colour is cream, with rose-shaded centre and sometimes a suffusion of apricot; sweetly scented.

Mme. Segond Weber.—A large, high-centred bloom of a real salmon pink shade, quite different to the usual pink Roses.

Duchess of Wellington is one of the best of Messrs. Alex. Dickson's 1909 set. Saffron yellow, centre bronzy crimson; large petals, free-flowering. A decorative Rose of great value. So also is another of their decorative varieties, viz.,

Theresa. It is a delightful mixture of orange, apricot, écru and pink in its different stages.

Nita Weldon is a large white Tea with faint pink-edged petals. A fine addition to the larger-flowering Tea section.

Dorothy Page-Roberts is a Rose of wonderful charm. In colour it is coppery pink and apricot; as the flower expands each petal turns under to a point; very useful for decoration. The colour is deeper in autumn.

Renee Wilmart-Urban.—A fine variety; one of Pernet-Ducher's successes. White, with salmon and blush centre; a solid bloom.

Marquise de Sinety.—A gem, in colour yellow, with bronzy red suffusion; large, cupped and fairly full.

Jacques Vincent.—Coral red with a yellow tinge; a pretty decorative variety.

Mme. Maurice de Luze. — This is a good vigorous grower, with fine broad petals; a real rose pink, full, opening well, a huge bloom; as a maiden superb. Good for exhibition and garden.

Mme. Melanie Soupert. — Fine in every sense of the word. Globular, opening well, outside petals deep creamy salmon, centre salmon and red, beautifully blended.

G. C. Waud.—A shade of colour very distinct, orange vermilion in its prime. There is a glow radiating from the centre of the bloom which greatly enhances the general effect.

John Cuff is also another acquisition; large petals, a deep carmine-pink with yellow base.

Mrs. David Jardine.—Good shape, salmon pink in colour, especially good under glass; very free flowering.

Mrs. Isabella Milner is after the style of Mildred Grant, but circular; white, with petals daintily edged with very faint pink, nearly mauve; charming effect; a huge, solid bloom.

Mme. Jules Gravereaux.—Although sent out in 1901, it has only of recent years become generally known. A deep buff-yellow with faint pink shading, high centre and full petals turning over prettily.

In *Walter Speed* and *Margaret Molyneux* we have two more gems which will be generally grown in a few years. Both have been well exhibited.

Hugh Dickson is a huge crimson-scarlet, intense colouring, superb in every way; high centred and very good.

E. E. F.

THE FLOWER GARDEN.

SWEET PEA CHAT.

NEW VARIETIES.—Now that the principal exhibitions have come and gone, and hundreds of friendly bouts have been fought, lost and won, the thoughts of the enthusiast will turn towards the new varieties which he hopes to include in his collection next year. He will have had many novelties this year, and few of them will have come perfectly true; but little mixtures, such as some of us had the pleasure, or pain, according to circumstances, of seeing at Reading, will not reduce his ardour; on the contrary, he will grow the novelties next year with even more care than ever before, and the true ones he will bless, while the untrue ones he will, let us hope, regard with a philosophical calm as among the inevitable things of the cult.

The great, the burning question then is the novelty. Is there anything of such super-excellence that it will eclipse all those that have gone before? Has the Coreopsis grandiflora yellow or the Salvia patens blue yet been discovered? The answer is a decided "No" in each instance. Far be it from me to deprecate the new varieties that are coming out with more or less glowing descriptions; but I cannot disguise from myself the fact that they are a mediocre lot, practically all of which resemble with a fearful closeness those that have come in previous seasons. This must not cause disappointment. During the last decade enormous strides in evolution have been made, and it would be quite unreasonable to expect that the same rapid advance could be maintained year after year. We have not yet reached within measurable distance of the zenith either of popularity or of variety, but nowadays it takes a good one to stand head and shoulders above its fellows, and, consequently, we must be content with the good things that the raisers give us, though they may be few in numbers and show little real advance upon their predecessors. Hope springs eternal in the human breast—at least, so someone has said; it does in mine, and the hope is that I shall get the Coreopsis grandiflora yellow and the Salvia patens blue, for I could then pass the approaching evening of my life in affluence and the glorious knowledge that I had scored over all my fellows in the Sweet Pea world. Perhaps there are others whose hopes run parellel with mine! There is something in the nature of poetry in the last sentence or two; but the Editor is prosaic and will demand that we turn at once to practical things and not occupy valuable space in fancies. It is obvious that it will be impossible to conclude my notes on the new varieties in one issue, and I propose, in the first place, to glance at the behaviour of some of the crack sorts that were shown, and in several instances distributed, last season. First must come the silver medal variety of the National Sweet Pea Society in 1908. This was not distributed as far as I am aware, but it was represented in the trials at Reading. Memory is notoriously a treacherous thing to rely upon, but I wonder whether anyone else had the same thought as I had when I closely examined that row. Could it really be the George Stark that I had worshipped a while ago? I dare not say no even to myself, but it seemed to me to smack wonderfully of Queen Alexandra, especially in some of the blooms. However, we shall see next year if all is well. The King is a fine flower, but it will have to bow down before Sunproof Crimson, since the former burns (someone will want to know where the sun has been to burn it), while the latter does not; King Edward Spencer may follow The King. Mrs. Andrew Ireland, the second of Dobbie's novelties of last year, is far and away better than even the most sanguine, who know the firm of Dobbie and the man Ireland, could have expected. I am prepared to assert that it is one of the finest Sweet Peas that we have had in our gardens since Sweet Peas first were. I have seen it in the North and the South, the East and the West, as well as at home at Mark's Tey, and the more I see of it the more I become convinced that it is easily the variety of the year. For exhibition it will be indispensable, while for the garden it is unequalled. SPENCER.

THE BLUE ROCK BINDWEED (CONVOLVULUS MAURITANICUS) IN A DEVONSHIRE GARDEN.

A YELLOW-FLOWERED SAXIFRAGE.

(S. JUNIPERIFOLIA.)

SAXIFRAGES with yellow flowers are more numerous than they were a few years ago, but they are as yet too little cultivated by the many who possess a rockery. The defect possessed by this Rockfoil is that of shy-flowering in many localities, and one has seen good plants which have not flowered for years. This failing need not be fatal to its cultivation, as the plants themselves form beautiful little mounds of foliage, quite appreciated on any good rockery. Still, flowers are welcome as well, and the plant requires to be covered with glass if it is to give its little spikes of small yellow flowers with any degree of freedom. Some put a bell-glass, a sheet of glass, or a hand-light over the plants for the winter months alone; but still better results are achieved if this Saxifrage is kept with the glass above it in summer as well. It will, however, require plenty of air, and if a bell-glass or a hand-light is employed, either must be well tilted, so as to allow of the free admission of air. Then the plant should have a fair amount of moisture at the roots, so that a large hand-light is not desirable, lest it throw the rain-water away.

Dumfries. S. ARNOTT.

LILIUM MYRIOPHYLLUM.

THIS rare and beautiful Lily was well shown before the Royal Horticultural Society by Messrs. James Veitch and Sons, Limited, on July 20, the several plants comprising the little group constituting a centre of attraction. The plant reaches above 2½ feet or 3 feet in height, the short, narrow, lance-shaped leaves being very numerous and closely arranged on the sturdy stems. The species comes from Western China, and I believe a small consignment of bulbs was brought home by Mr. E. H. Wilson. The species belongs, or is closely related, to the L. Brownii section of Lilies, the external colouring being of a deeper hue of chocolate than in the better-known type. Internally the colouring more nearly resembles that of L. Brownii chloraster, but the yellow is more decidedly pronounced and of a deeper shade. The fine trumpet-shaped blossoms are of great substance, reflexing at the tips of the segments, where the deeper external colouring is reflected; in sunlight it forms a very striking contrast. This Lily is extremely rare at the present time; nor can its beauty and charm be well overrated. Like all the Brownii set, it may be grown in sandy loam, or in this and peat in mixture. E. J.

CONVOLVULUS MAURITANICUS.

THE blue Rock Bindweed, as this Convolvulus has been called, is one of the most beautiful and graceful of all the members of its family. Entirely free from the rampant, land-grabbing tendencies of so many of its race, C. mauritanicus is remarkable for its persistent flowering and neat, elegant habit. Although a native of Northern Africa it proves hardy in this country, and is one of the best plants for grouping that can be imagined. A dry, almost perpendicular bank entirely covered with this Convolvulus, each plant forming a dense veil and throwing up innumerable graceful, drooping shoots, studded along their entire length by soft lavender blue flowers about the size of a florin, is one of the most beautiful sights it is possible to conceive. On a

SOME OF THE NEWER NARCISSI.

1. Prospero (Johnstoni).
2. Snow King (Poeticus).
3. Czarina (Giant Leedsii)
4. Challenger (Engleheartii).
5. Rev. D. R. Williamson
6. Lady of Shalott (Triandrus Hybrid)
7. Masterpiece (Engleheartii).
8. Warley Scarlet (Engleheartii).
9. Triandrus Hybrid Seedling
10. Peter Barr
11. Lord Roberts.
12. Fire Queen (Barrii).

(See Special Note in Article)

Hudson & Kearns, Ltd., Printers, London, S.W.

ledge of the rock garden where its blossom-laden, pendent growths can hang freely down it is seen at its best.

Distinct as it is from any other species in cultivation, it may be used with fine effect in almost any situation in the garden. In the warm, sunny crevices of the rockery, in a border with a southern exposure, or in the summer flower-beds this charming plant will be found equally at home. It is also very useful as a vase plant, its drooping growths soon covering its receptacle. It is never seen to better advantage than when creeping over some formal stone edging, which it converts from an eyesore to a thing of beauty.

A fine example such as that shown in the illustration on page 398, which is 4 feet in length and 3 feet across, bears myriads of blossoms. Happily, too, it is not a flower of a week. It commences its display early in July, in August is a sheet of lavender blue, and continues to flower with decreasing freedom through the entire autumn. I have already mentioned that the plant is hardy, but in cold districts it may be killed in an exceptionally severe winter. For this reason it is always advisable to insert a batch of cuttings in sand and cover them with a bell-glass in the autumn, as these strike freely and, planted in the spring, make good plants, growing and blooming through the late summer and autumn.

South Devon. W. Fitzherbert.

COLOURED PLATE.

PLATE 1380.

SOME OF THE NEWER NARCISSI.

IN the coloured plate presented with this issue twelve of the newer Narcissi are shown, all of which have been seen on Messrs. Barr and Sons' stands during the past season. It was a happy thought to arrange the group in this way, for although it does not seem to be quite a reliable guide so far as the size of the individual blooms are concerned, it gives an excellent idea of the diversity of form that we have in the modern Daffodil.

The most famous flower of the twelve is Peter Barr. Unfortunately, the colouring of this particular variety has gone wrong. In the working of the plate it was found impossible to get it true to colour, and so we have presented to us a flower in which the trumpet is paler than the perianth—a colour-scheme which I believe only exists at present in one of the rare triandrus, viz., t. pulchellus. It *is* an ill wind that blows nobody any good, and possibly this mistake may set hybridists thinking when they see pictured the pleasing effect of a perianth of a deeper colour than the trumpet. To return, however, to Peter Barr, which in real life has a large white campanulate perianth and an ivory white trumpet, we may take it as an up-to-date example of the development that recent years have seen in this beautiful section. When this variety appeared in 1902 it was listed at £50 a bulb—a huge price, one thinks, but not too high to prevent (I think I am right in saying) at least two bulbs leaving the Surbiton nurseries, where this beautiful seedling was raised and where it was duly named after the well-known founder of the firm.

The Rev. R. D. Williamson and Lord Roberts mark advances in the yellow trumpets. They, too, are Surbiton children. The latter variety is a flower of very large size, and has, what is so essential for garden purposes, an excellent constitution and a tall, vigorous habit.

In Czarina we have a new giant Leedsii, one of the very best and one of the most expensive (£30 each). The bloom in well-grown specimens measures 5 inches across. This race, of which White Queen is the best-known example, will become very popular when they can be bought at a few shillings a dozen.

Challenger, Warley Scarlet and Masterpiece are three handsome flowers which very much resemble Poets. There is a little uncertainty into what section they should go, but this need not prevent us admiring their brilliant colouring. Masterpiece is an ideal show bloom, with a flat, white, overlapping perianth and a large, shallow, all-red cup.

Somewhat similar in appearance is Fire Queen. This is classed as a Barri, and is a singularly bright flower with a white perianth and large orange cup margined with fiery red. I wonder sometimes what will be the future of these brilliant flowers. Alas! some of them very quickly burn in the sun, and if they are to be seen in perfection must be gathered almost before they open, or else they must be shaded. They are, however, always much appreciated as cut flowers and command a good price in the market. Possibly this is their destiny.

In Lady of Shalott and the hybrid triandrus No. 9 we have examples of exquisite and delicate flowers, which are easily raised from seed (Minnie Hume × triandrus albus). The pure white forms are of the highest type of beauty and refinement. They are the Snowdrops of the Daffodil world. They have lately attracted the attention of Mr. Walter T. Ware, who has offered a challenge cup for triandrus seedlings to the Midland Daffodil Society. Everyone knows the elegant King and Queen of Spain, and will welcome additions to the Johnstonis. Bennett-Poë and a few others are already in commerce, but there is a better time coming when Earl Grey, Count Visconti, Cyprian, Prospero and others are buyable.

The last of the little collection to be mentioned is Snow King. It is a giant Poet with smooth, solid petals and a fine eye. We will always especially associate Mr. Engleheart with the improvement of the pure Poeticus; but this need not prevent us welcoming later workers and their work. The splendid Lindsay Gordon was raised by Mr. Charles Dawson, and Snow King by Mr. E. M. Crosfield. The latter is a grand acquisition. It makes a tall, fine plant and carries a bloom somewhat between a Cassandra and an ornatus. Joseph Jacob.

TREES AND SHRUBS.

CHOISYA TERNATA.

THIS fine flowering shrub, sometimes known as the Mexican Orange Flower, was introduced into this country in 1825. At first it was grown in the stove, later on transferred to the greenhouse, then to the cold house, and eventually some daring spirit determined to give it a trial in the open air. This drastic treatment met with such unexpected success that it soon became one of the most popular shrubs for the garden and has proved practically hardy, having endured a temperature 4° below zero—which killed all the Veronicas and many Escallonias—without a leaf being injured. Even the common Laurel has been badly seared when the Choisyas have been unhurt, so that we may reckon that it is able to withstand any frosts we are likely to have in this country with impunity.

A GOOD SPECIMEN OF CHOISYA TERNATA.

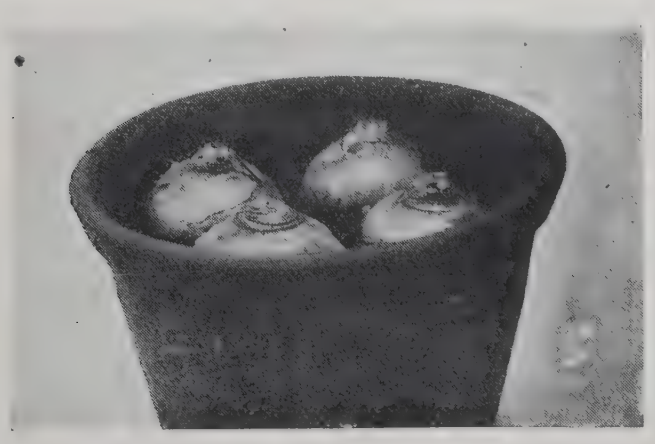
It is certainly one of the most beautiful plants introduced into this country during the present century. It grows, blooms and can be propagated quite as freely as the well-known Escallonia macrantha, while, where these two are planted in close proximity, the pure white, exquisitely scented flowers of the Choisya form a lovely contrast to the dark green, glossy foliage and pink blooms of the Escallonia. In the South-west, where the Choisya is largely grown, it invariably blooms twice in the year, namely, at its normal period in the spring and again in the autumn, often being white with flower in October and November.

It is not at all particular as to soil or situation, and may sometimes be seen in good health, though making but little growth, in soil that is merely stony rubble; but a sheltered, sunny corner in deep loamy soil suits it best. There are many splendid plants in Devon and Cornwall, but probably the finest is at Carclew, this specimen being 15 feet in height and 30 yards in circumference. W. Fitzherbert.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—After the recent heavy rains the grass will require almost as much attention as regards mowing as it did early in the summer-time. Many amateurs who use mowing-machines push them over the lawn in the same direction every time the grass is cut, with the result that, where the ground is



I.—FOUR BULBS OF THE ROMAN HYACINTH PLACED IN POSITION IN A 5-INCH POT.

naturally of a heavy, clayey texture, the surface becomes waved. This condition of a lawn may be corrected to a great extent by pushing the machine over it in quite an opposite direction. Furthermore, it is advisable to mow very wet lawns at midday, while the grass is dry, as the work is more easily done then, and without leaving smeared marks on the grass. Longer grass growing under trees and in odd corners, which must be cut with the scythe, is best dealt with early in the morning while it is wet with dew, or immediately after a shower of rain. The mowing-machine cuts the grass best while it is dry, and the scythe when it is wet. Zonal Pelargoniums and Marguerites should be propagated now. The former may be inserted in pots and boxes, and the latter in boxes alone. The Pelargonium cuttings must average 5 inches in length and the Marguerites 4 inches. Cuttings of medium strength, and as well matured as possible, are the best in the case of Pelargoniums, and young shoots of Marguerites without flower-buds must be selected. A sandy compost made moderately firm and not containing much organic manure is the best.

Vegetable Garden.—Cucumbers in frames will now require very careful treatment. As much heat as possible must be husbanded in the frame, else the Cucumbers will be slow in growth and bitter to the taste. Ventilate early in the morning and close down the lights early in the afternoon; all necessary syringing must be directed to the under-sides of the leaves, as at this season red spider generally proves troublesome. The removal of very weakly shoots and old seared leaves will greatly assist in maintaining the health of the plants. As Celery is a moisture-loving plant, there ought to be some grand rows of it in our gardens this year. Liquid manure should always be given freely before any soil is drawn up to the plants for blanching purposes. Where the plants are rather stunted, but on examination are found to possess plenty of roots, some concentrated manure dissolved and applied while the soil is moist will have a beneficial effect on the crop. Earthing up in such a case should be delayed a little so as to get more growth of stalk first, as the earthing is only done to blanch the stalks. New Zealand Spinach is generally found to be a very useful vegetable during the months of August and September. Give applications of weak manure-water twice every week.

Fruit Garden.—The bud mite on Black Currant bushes still gives a lot of trouble and causes much anxiety. At this season nearly all the buds affected will be brown in colour, and the mites will have left them for other buds, having exhausted the sap in those which they first attacked. The best policy is to at once uproot all very badly affected trees and burn them, afterwards digging in a peck of quicklime where each bush formerly grew. Directly all the fruit is gathered from the Raspberry canes, cut out the old ones, and all very weakly new ones, too; in fact, it is wise to remove all the new canes of weaker growth at once, so as to leave the best about 6 inches or 7 inches apart. Those retained then get more air and sunshine, and so mature better than they possibly could if left unthinned until late in the autumn, when all the leaves had fallen off. Wall fruit trees get covered with dust during the period that the fruit is ripening, and when it is gathered a thorough syringing must be given to cleanse the leaves from all dirt and adhesive sediment. One syringing is not sufficient; several must be given at short intervals.

Greenhouse and Frames.—Roses in greenhouses now possess very matured wood, and as much air as possible, consistent with the well-being of other occupants of the structure, must be given. I refer, of course, to border Roses. The trees should be syringed early in the morning of a fine day, and then all moisture will be dried up by the evening. This is also a very good time to get any necessary painting done inside the house, as stages may be cleared, painted, the house well ventilated and the plants returned to the stages in a very short time. Place cuttings of bedding plants in cool frames. B.

ROMAN HYACINTHS AND PAPER WHITE NARCISSI IN POTS.

LONG before the summer display in the outdoor garden has come to an end our thoughts should be turned to providing flowers for Christmas and the New Year. The Roman Hyacinths and the Paper White Narcissi are both exceedingly useful for this purpose, and both can be grown with comparative ease. If a series of batches of bulbs are potted up, they will provide successional supplies that can be spread over several weeks in the dullest and most depressing period of the whole year. Neither subject is expensive, although the Roman Hyacinths are the dearer of the two and good bulbs less easy to obtain than they were some years ago.

Instead of the pots illustrated, boxes are used where supplies of cut flowers are to be maintained, as these enable the grower to economise space and at the same time provide a plentiful supply of blossoms; but for house or greenhouse decoration pots are the most useful. Our first consideration, therefore, is a sufficient supply of pots for our purpose. These may be either 5 inches or 6 inches in diameter, and should be washed quite clean. New pots should be soaked in a vessel of clean water for a time, so that they may absorb moisture, which in their dry, porous condition they will do very readily. Pots 5 inches in diameter will answer for the Roman Hyacinths, but those 6 inches across are better for the Narcissi.

An excellent soil mixture may be made by using the following ingredients: Three parts good fibrous loam and one part each of leaf-mould and well-decayed manure, such as is acquired from a spent hot-bed. To the foregoing add a sixth part of coarse silver sand or clean road grit, and after chopping up the loam roughly, mix the whole heap and place under cover in a cool shed, where the soil may be maintained in a cool, slightly moistened condition and ready for use when required. Those who grow bulbs for exhibition purposes strive to obtain old, thoroughly decayed cow-manure for mixing with their soil, preferring this to any other manurial ingredient. If the soil is rather heavy in texture I should use about a peck of sand or road grit to each bushel of other material.

Crock the pots carefully, so that good and ample drainage is provided, and cover the crocks with pieces of the rougher soil, so as to prevent the finer particles working down into the crocks and thereby clogging the drainage. Fill in the prepared compost to within a few inches of the rim of the pots, make this somewhat firm, and all will then be ready for the actual potting of the bulbs.

Bulb catalogues are now being distributed by the specialists, and no time should be lost in procuring the necessary bulbs. It is a great mistake to delay the purchasing of the bulbs; they should be acquired as soon as possible and be planted without delay. Avoid extra cheap bulbs, as they are mostly of inferior quality. Select, if it is possible, bulbs of medium size that are nice and firm in character. Weighty bulbs are the better ones, as a rule, and if large bulbs are consistent in this respect I should not hesitate to plant them.

Place three or four bulbs of the Roman Hyacinth in a 5-inch pot. Fig. 1 shows how the bulbs should be adjusted in position. Some growers first fill the pots with the prepared compost, then take out soil therefrom and place each bulb in position. I prefer to arrange the bulbs equidistant in the pot and place each bulb on a thin layer of sand. The compost is

2.—THE SAME BULBS AS SHOWN IN FIG. I AFTER THE POTTING HAS BEEN COMPLETED.

then placed round them carefully and made slightly firm. A few raps on the potting-bench will still further cause the soil to settle, and with another thin layer of compost this portion of the work will be completed. When finished, the crowns should be just out of the soil and also just below the rim of the pot, as represented in Fig. 2. Water in with the aid of a rosed can and let the pots drain for an hour or two, after which they should be stood on a thick layer of ashes.

The Paper White Narcissi will need rather different treatment. Three normal-sized bulbs can be accommodated in a 6-inch pot, as represented in Fig. 3. Observe the same rule when

djusting the bulbs in position as recommended or the Roman Hyacinths, so that when filled in vith soil and completed they should be adjusted n position as seen in Fig. 4. After watering in nd allowing the pots an hour or two to drain, hey, too, should be stood on a bed of sifted ashes nd covered 6 inches or 8 inches with either Cocoanut fibre refuse or sifted ashes. I prefer he former, as it is cleaner and less likely to

3.—THREE LARGE BULBS OF THE PAPER WHITE NARCISSUS PLACED IN POSITION IN A 6-INCH POT.

damage the growths when they push their way through the soil. When the growth is about an inch in length, the pots should be removed from the plunging material as required and be placed in a cold frame, for the growths to be gradually blanched. Subsequently they should be placed in the glass house, and when the flower-trusses appear the temperature should be maintained in a genial condition. Never let the roots suffer for the want of water. D. B. C.

PROPAGATING CARNATIONS AND PINKS.

Carnations are usually layered at this season of the year, and Pinks are propagated by putting in cuttings in a cool border. If Carnations are layered early the shoots thus treated will make very fine plants before the frosty weather comes, and it is important to secure such, as roots do not form freely late in the autumn.

How to Layer.—Each year a number of side shoots grow from the parent plants; they are quite free from flower-stems, and if left on the old plant they would bear flowers another year. These are the right shoots to layer at the present time, as they will make very nice flowering plants next year. A gritty compost encourages the formation of new roots, both on layers and cuttings. The best compost to use is the following: Fibrous loam two parts, leaf-soil one part, sand or road grit one part. Manure must not be used. The compost ought to be passed through a 1-inch mesh sieve. Carefully clear away any bad leaves from the base of the plants and then place about a peck of the new compost under the side shoots which are to be layered. Strip off a few of the lowest leaves and then cut the stem slantwise halfway through, the cut being about 1 inch long. Having done this, drive in a peg, made about 6 inches long, immediately over the cut portion of the stem so as to keep the lip open and the layer firm in the new soil. Treat each one in this way and maintain the compost in a moist condition; then roots will soon form. The soil when used must be in a medium state of moisture, so that it can be made very firm around the stem of the layer. On no account leave the soil loose, else disappointment will follow. On the winter treatment of the rooted layers information will be given in due course.

Propagating Pinks.—The young shoots taken off are called cuttings and also pipings. The best grow near the outside part of the old plant. Those about 5 inches long must be selected, and after the lower part of the stem has been denuded of leaves, or grass as they are sometimes termed, for nearly 2 inches up, it must be cut off just below a joint with a sharp knife. Sometimes it is wise to make a cut up the stem as deep as the width of the knife blade, and this is advisable where the soil is rather clayey. Insert the prepared cuttings in a border with a north or west aspect, make the soil firm and give water when necessary, as Pinks fail to root if the cuttings are allowed to get dry. Place sand around the base of each cutting when planting. Shamrock.

A CHOICE ALPINE.

(Saxifraga valdensis.)

Of all the Saxifrages of the Kalischia section there is, perhaps, no more attractive or prettier variety than valdensis, with its dense rosettes of tiny, undivided leaves that are covered with a white encrustation. A good patch or pan of this is a thing to be proud of, especially when covered with the dainty racemes of large white flowers in June or July. The whole plant does not exceed 3 inches in height, while it prefers a fairly high elevation, though it may be successfully grown on the level; but the former is preferable, as these tiny alpines are much more easily examined and their minute beauties appreciated when close to the eye. A well-drained and very lightly shaded spot is the best. When grown in the open rock garden or in pans, a compost of rich yellow fibrous loam, with plenty of chips and powdered limestone, should be used, but no sand, as is usual with members of the Saxifrage family. If established patches are seen to be dying off from the centre they must be at once lifted, carefully divided and replanted, or the whole clump will be lost. J. W. Canning Wright.

THE SCARBOROUGH LILY.

This is a good time to lay in a fresh stock of bulbs, which should be potted in fibrous loam, leaf-soil and sand. In potting keep the bulbs 3 inches or 4 inches below the surface of the soil, and place a handful of sand immediately round the bulb, which requires to be potted very firmly, so that it is best to allow them to remain in the same pot for several years.

THE TOWN GARDEN.

The flowering plants are now looking their best, and the climbing and fine-foliaged subjects have covered much space and assumed richness of leaf respectively. Owners of gardens ought to closely examine the various kinds of plants they possess, so that they may be able to improve upon any that are found to be defective. For instance, if certain plants in shaded borders are almost a failure this year, owing probably to their unsuitability for the position, a note should be made to that effect so as to avoid making a similar error next year. Again, perhaps some of the climbing plants have failed to give satisfaction. Probably one specimen has made too much growth for the space on which the shoots are trained. Well, if it is found advisable to put in another plant in a similar position this autumn, care will be taken to select a less robust-growing kind. Thus there will be no guesswork in the matter, but the cultivator will know exactly from experience what to do.

Pansies and Violas.—Seedlings of these must now be transplanted in prepared borders. Every seedling with a straggling habit must be rejected, as such plants retain the straggling form and bear very small flowers. Those that are stocky and do not produce runners are the best, and these must be carefully lifted so as to retain all the roots intact. Even a very small seedling possesses many roots, and any violent pulling would result in the breaking off of the majority. It is always a more difficult matter to keep Pansy and Viola plants through the winter months in a town than in the country. Open quarters are the best, as any sheltered position draws up the seedlings and weakens them before the bad weather comes; then they are less able to withstand it. In clayey soils the nursery bed for the young plants ought to be slightly raised and an extra quantity of sand or gritty soil must be mixed with it. Where a movable frame is available it is a good plan to make measurements, and to so put out the young seedlings that they can be eventually covered with the frame and so protected from severe frosts.

Cuttings.—Cuttings of both Pansies and Violas must be inserted in a cool border facing north, north-east or north-west. The soil must be broken up thoroughly and some gritty soil mixed with it if it is of a heavy, retentive nature. Cuttings taken from the base of the parent plant are the best. The lower leaves must be removed and then the cultivator should sever the stem just below a joint with a sharp knife. Insert the cuttings in rows 6 inches apart and 4 inches asunder in the rows. Water at once through a fine-rosed watering-can, and afterwards when necessary so as to prevent the soil getting dry and the leaves from shrivelling. Very often a syringing at seven o'clock in the evening will do more good than a watering through a water-can.

Runner Beans.—These are often grown in town gardens principally for their quick growth, handsome leaves and scarlet flowers. Where the plants are growing near fences and walls, care must be taken to prevent the dropping of the blossoms. Want of water at the roots is the chief cause of the wholesale dropping off of the flowers. All pods formed must be gathered and used while they are young; then they will be tender and their removal will result in the free production of more growth and flowers.

Propagating Bedding Plants.—Only those kinds should be propagated that can be kept through the winter months. It is useless to mutilate the flower-beds now by the removal of shoots suitable for cuttings when the latter cannot be kept safely through the winter. Zonal Pelargoniums, however, can be wintered in a cool conservatory or greenhouse, and so it is advisable to strike the cuttings early in boxes and pots and to keep them hardy by placing them in sunny positions outside until the end of September. When water is required a good soaking must be

4.—THE SAME BULBS AS SHOWN IN FIG. 3 AFTER POTTING HAS BEEN COMPLETED.

given, but constant surface sprinklings would do harm, as if exposed to excessive moisture Zonal Pelargoniums will damp off. Calceolarias and Marguerites are easily kept through the winter, but it is not yet time to take cuttings. In the meantime it will be advisable to prepare pots, boxes, compost and labels, so that all may be ready when the work of propagation is commenced in earnest. Avon.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUITS UNDER GLASS.

VINES which have been cleared of their crop should be thoroughly cleansed. If the leaves are badly infested with red spider, a great deal may be done by freely syringing with the garden engine—following a dressing of some approved insecticide—and this should be repeated till the pests have been thoroughly eradicated, it being most essential to keep the leaves as fresh and healthy as possible for the rest of the season.

Strawberry Plants for Forcing.—Get those which have been layered in small pots transferred to their fruiting size. When potting use a rather heavy soil, with a little burnt earth, wood-ashes and decayed manure added to keep it open and sweet. Pot rather firmly, regulating this according to the nature and condition of the soil, *i.e.*, if light ram more firmly and less if heavy. Stand the pots in a shady place for a few days and syringe two or three times daily till the roots take to the fresh soil, when the pots may be stood in an open spot. Keep them free from weeds and runners and well supplied with water.

Fruit Trees in Pots.—Do not neglect these so soon as the fruits have been gathered if a crop next year is expected; but feed at intervals, keeping the leaves clean and healthy as long as possible.

KITCHEN GARDEN.

Cucumbers Under Glass.—If not done already, plants raised for autumn fruiting should be put out where they are intended to fruit as soon as possible. Use a rather rough and lumpy compost and keep the structure close and well supplied with moisture. Those plants which are now commencing to bear should not be overcropped, but regulated according to the strength of the growths. Attend well to the syringing of the foliage in bright weather, but on dull, sunless days this should be lessened. Keep the roots in a healthy and moderately moist condition and the atmosphere sweet and fresh, otherwise mildew may attack the leaves and do a deal of harm to the future supply of fruits.

Tomatoes.—If the plants intended for autumn fruiting have been potted up and stood outside, and are to take the place of any which may have ceased bearing under glass, no time should be lost in getting them placed in the position required. Keep all side growths removed and the leading stems neatly and carefully tied to the trellises. Be careful not to over-water till the pots are well filled with roots, and do not let the temperature be too moist in wet, dull weather. For late use Lye's Favourite and Carter's Sunrise are very dependable varieties to grow.

PLANTS UNDER GLASS.

Show and Fancy Pelargoniums.—Those which have been kept dry may now be pruned to within a few eyes of the old wood, and then stood in a pit or frame to break. They may be afforded moisture at the roots and slightly syringed overhead to encourage a strong break. After the new growths are about an inch long shake all the old soil from among the roots, shorten the latter and repot, using pots just large enough to take the roots without these being too much cramped, and repot again at a later date. If needed strike more cuttings for a younger supply of plants and use a rather sandy compost.

Attend carefully to all plants which may have been struck from cuttings and planted out in an open position to be taken up and potted for a supply of bloom in winter and early spring. Keep the soil free from weeds, stake the plants to prevent breakage by wind or rain, if such be needed, and endeavour as far as possible to obtain nice bushy heads.

Pot up Cyclamen, using a rather sandy compost, and stand them in a suitable structure where they are not too far from the glass.

H. MARKHAM.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

THE CONSERVATORY.

CLIMBING PLANTS of several kinds will now have completed their season's growth, and a thinning out of weakly or superabundant shoots, and the securing of those remaining in positions where most needed, will give a better appearance within the structure and admit of a more free diffusion of light to subjects growing beneath. Roses in particular will now be past flowering, and opportunity may profitably be taken to prune away old and effete wood and train to place a sufficiency of the current year's growth, after which the foliage may be thoroughly cleansed and then sprinkled daily to encourage growth. This treatment, combined with copious supplies of water at the roots, will, with many varieties, result in a good number of blooms in late autumn.

Plants in Flower, such as Lilies, Fuchsias, Begonias, Zonal Geraniums and others that are required to make a display for a long season, should be liberally treated in the matter of nourishment by having manure-water applied at least once a week. More important still is careful provision of water at the roots in general, as on drying days evaporation is so rapid and the demand for moisture so great that unless closely looked after irreparable mischief is done before one is aware of it.

Pelargoniums of the fancy types will now be past the flowering stage, and if increase of stock is required some of the best shoots may be inserted as cuttings, a cold frame affording sufficient protection at this time. Earlier plants pruned some time ago will now have sprouted freely and be in need of repotting. Turn the plants from the pots and with a pointed stick remove the crocks and most of the soil; afterwards trim closely any straggling roots and replace in medium-sized pots to allow of a further shift later on. Good loam well broken up, leafmould, a little bone-meal and the usual correctives according to the texture of the bulk, form a very suitable compost.

HARDY FLOWERS.

Carnations of the border type are late in flowering, and the usual practice of layering when this stage is passed must be departed from, or rooted layers will not be obtained in autumn. The process of layering differs but little from that described for pot plants a fortnight ago, only in this—the ordinary soil surrounding each plant must be substituted by a finely sifted mixture of a sandy nature to a depth of 3 inches. Into this the layers, after being divested of superabundant leaves and slit or tongued, may be pressed firmly and pegged to prevent the possibility of their moving. Water must afterwards be applied according to necessity, and should birds prove troublesome by disturbing the fresh soil in search of grubs, herring-net suspended over the plots is likely to be most effective.

Sweet Peas.—These are far from promising at present, the continued wet weather causing a soft, sappy growth and but few flowers. Attend well to staking, and as far as possible keep the growths erect; withhold stimulants by way of manure-water, also mulching material, if not already applied, until a change takes place.

KITCHEN GARDEN.

Early Celery should be earthed as it becomes fit, ample supplies of water being previously given and the plants allowed to dry, if needful. If for exhibition, a fold of tissue paper surrounded by some of stouter texture is better than soil for blanching, and the risk of the leafstalks being injured by worms and grubs is greatly minimised.

Potatoes.—Early varieties left for seed may now be raised, as the risk of disease is considerable, and if the skins are set the tubers will keep equally as well in a cool place. Late varieties may as a precautionary measure be sprayed with Bordeaux compound, using this when the haulm is quite dry and when the mixture is not likely to be washed off by rain.

Cucumbers in frames should receive a top-dressing of good loam when the roots show upon the surface; syringe the foliage with chilled water on warm afternoons, but forego this treatment when dulness prevails. Close the lights early to conserve sun-heat.

Peas.—Late varieties of these are growing very freely and the taller among them show signs of becoming top-heavy; prevent their falling over by additional stakes if possible, or, failing in this, stop the growth in good time.

Salading.—Frequent sowings of Endive and Lettuce should be made, and thin early sowings in time so that sturdy growth can be counted upon.

JAMES DAY.
(Gardener to Sir Malcolm McEacharn.)
Galloway House, Garlieston, Wigtownshire.

NEW PLANTS.

DENDROBIUM SANDERÆ.—This is a new introduction from New Guinea, and is a really beautiful and unique plant. The flowers are rather large, the sepals being lanceolate and acute, the segments reflexing to a good extent. The petals are about three times as wide as the sepals, and all are pure glistening white. The labellum is large, spreading and pure white at the apex, the throat being marked with dull claret and green. The stems are long, jointed and of the usual Dendrobium character. Shown by Messrs. F. Sander and Sons, St. Albans. First-class certificate.

Cattleya Warscewiczii W. Waters Butler.—A beautiful flower with a name too unwieldy for general use. The flowers are larger and more intense in colour than the type, the form, too, being well-nigh perfect. Shown by W. Waters Butler, Esq., Southfield, Norfolk Road, Edgbaston. Award of merit.

Galega Hartlandii.—This plant is now well known to cultivators of hardy perennial flowers, and may best be described as a bicolor form of G. officinale, from which it is quite distinct. From the Royal Horticultural Gardens, Wisley. Award of merit.

Spiræa venusta magnifica.—A very fine plant for cool and moist ground or for water-side gardening. The flowers are of rosy crimson hue, and are produced in large, cyme-like heads. The plant is of an imposing stature. Exhibited by Mr. Amos Perry, Enfield. Award of merit.

Carnation Fiery Furnace.—Yellow ground fancy variety, heavily coloured scarlet. From Messrs. Blackmore and Langdon, Bath. Award of merit.

Carnation Jupiter.—A most distinct yellow ground fancy, with clear rosy pink colouring. In every way a delightful flower. Exhibited by Mr. Charles Blick, Warren Nurseries, Hayes, Kent. Award of merit.

Carnation Elizabeth Shiffner.—A remarkably good self-coloured flower of excellent form. The colouring is from pale to deep buff yellow, the centre of the flower merging into apricot. Award of merit.

Carnation King of Spain.—The largest and best-formed maroon flaked fancy we have seen. Underlying this intense colouring there is just a suspicion of yellow. It is a most handsome flower. Award of merit. This excellent pair were exhibited by Mr. James Douglas, Great Bookham, Surrey.

Nymphæa stellata Earl of Warwick.—A rose-coloured form of N. stellata. The variety is probably a natural hybrid, and occurred in a batch of seedlings of the typical form. From the Earl of Warwick, Easton Lodge, Dunmow. Award of merit.

Tunica Saxifraga flore plena.—This is simply a very pure white double-flowered variety of a well-known plant suited to rock and wall gardening. It is, however, a very charming plant. Exhibited by Bakers, Wolverhampton. Award of merit.

Gloxinia (strain).—An admirable strain of these flowers raised from seeds sown in February last was exhibited by Messrs. Veitch, the colours embracing purple, violet, crimson, carmine, rose, pale and deep pink, white and many spotted or fancy sorts. The flowers were of the largest size. Award of merit.

NEW FRUIT.

Melon Barnet Hill Favourite.—A medium-sized, rich yellow and oval-shaped fruit with white flesh and somewhat sparsely netted skin. We understand this variety has been grown for trial in the society's gardens at Wisley. Raised by Mr. Mitchelson, Wonersh, Guildford. Award of merit.

All the foregoing were shown before the Royal Horticultural Society on the 3rd inst., when the awards were made.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London, W.C.

HYDRANGEAS FROM HANDCROSS.

Mr. J. Comber of The Gardens, Nymans, Handcross, sends us sprays of four interesting and distinct Hydrangeas, which we are most pleased to see. He writes: "I enclose four species of Hydrangea, named, as purchased from Messrs. J. Veitch and Sons. H. Thunbergii and H. flore albo are both beautiful and distinct and are cut from the open, as also is H. aspera. H. manchurica is only just opening its flowers; the specimen sent has been grown in a pot. All four make large bushes in this garden and grow freely, with the exception of H. Thunbergii, which is small in all its parts."

MORE DELPHINIUMS FROM SCOTLAND.

Dr. McWatt of Morelands, Duns, N.B., sends us some more of his very beautiful Delphiniums, many of which are of much more than usual merit. Among others, the following specially appeal to us on account of their great beauty and refinement: Morelands Fanciful.—Intense sky blue, shaded lavender, black eye, very fine; single. Morelands Intense.—Outer petals, intense blue; inner, intense mauve; dark eye. Morelands Gem.—Double; outer petals, intense blue; inner, mauve; green eye. Morelands Blue.—Single; intense blue, with white eye; the colour is very fine. Morelands Blue and Purple.—Outer petals, intense blue; inner, light purple; double; white eye. Morelands Double Purple.—Green eye. Morelands Fancy.—Blue, suffused with heliotrope; white eye. Morelands Turquoise Blue, Morelands Royal Purple, Morelands Pervanche Blue and Morelands Lavender were also sent.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Hollyhocks diseased (*E. Hinckley*). The plants are attacked by the well-known Hollyhock disease, caused by the fungus Puccinia malvacearum. Nothing can be done when the disease has reached such an advanced stage as this. Seedlings should be raised and sprayed at intervals with a rose red solution of potassium permanganate.

Sweet Peas diseased (*E. M.*).—The Peas are attacked at the base of the stem by the fungus Thielavia basicola, a pest that is doing great damage this year to Peas, both Sweet Peas and culinary. It has been said that an alkaline condition of the soil tends to render the plants more susceptible to the attacks of the fungus, and that manuring with superphosphate checks the spread of the disease.

Foxglove with unusual flowers (*Red Rose*).—The change or abortion is a freak that is neither rare nor common, though we see instances from time to time. If you think it worth while to try and save or increase it, you might do so by raising seedlings from the one flower referred to, though you may raise a large number before you get the one you would wish for. Most frequently, however, the stigma is abortive and no good seed is produced. By watching you may presently discover an exception to this rule, and if you come across a stigma that is normal and where good pollen is available in any of these freak flowers, an interesting series of seedlings might be looked for.

Romneya diseased (*Lady T.*).—The Romneya is attacked at the base of the shoots by the fungus Botrytis cinerea. This fungus is very common, grows for a time on decaying vegetable matter and spreads from that on to living plants of various kinds. On this account it is important that as little organic matter as possible should be used near the surface of the soil, and, above all, avoid the use of any but thoroughly decayed manure.

Various questions (*Richard Haigh*).—We are not acquainted with the Gypsophila you name, and suggest your communicating with the source of your supply. The only objection to much thinning of the Roses is that it may cause bleeding, especially if the thinning means cutting away from the base all superfluous material. It would be better if the work of thinning was done periodically between September and March, and in this way confine the plants to the most valuable of the flowering wood. The permanganate of potash is usually employed for spraying purposes as a deterrent to the more minute of fungoid growths.

TREES AND SHRUBS.

Poplar leaves disfigured (*J. L.*).—The galls on the Poplar leaves are caused by the insect named Pemphigus bursarius. If you break one open you will find that it is filled with aphis-like insects. Attacks are frequently local, and one tree in a group may be badly affected and the remainder escape. The only way to cope with the disease is to remove the galls by hand-picking and burn them. It is probable that some good might be done by spraying the affected tree once a week with paraffin emulsion.

Lilac for identification (*The Misses S.*).—The Lilac specimen you send is not the garden variety Charles X., as you imagine, but a variety of the Himalayan species, Syringa Emodi. As you say that the flowers were reddish purple last year, it is presumably the variety known as rosea, and sometimes met with under the name of Syringa Bretschneideri; it is, however, impossible to account for the colour being so pale this year, for it is very similar to that of typical S. Emodi, though the inflorescence is smaller. Possibly the variety is reverting to the type. It would be interesting to watch how the colour comes next year.

Trimming a Laurel hedge (*T. H. S.*). It is advisable to trim a Laurel hedge twice a year—the first time as soon as the growth is well advanced, say, the middle of June, and again in autumn. If your hedge is not a very long one, you will find it advantageous to do the trimming with secateurs, for if you use shears a lot of leaves will, perforce, be mutilated, which will give it a rather unsightly appearance until growth recommences. If you find at any time that the hedge is getting too wide and requires a vigorous cutting back, you had better do the work about the middle of April. By doing this it will break again quickly and look ugly for the shortest possible time.

Pruning Yews (*Young Gardener*).—Your Yews can be cut into shape without fear of harming them seriously. The work ought to be done in April, then growth will commence again almost at once. If you did the work now the plants would look ugly until next summer, and would not break away so freely as they will if you defer the work until next year. Should the weather be dry when you do the work, syringe the plants twice a day for a few weeks. A top-dressing of well-rotted manure will do good when the trees begin to grow again. Border Chrysanthemums can be planted any time providing they are in pots. If, however, they have been planted out in a frame or nursery border, do the work on a showery day. Any time after the middle of May until August is a suitable time. Azalea mollis for forcing ought to be ordered at once for delivery at the end of September or early October. If you order early you are likely to obtain better plants than if you leave your order until the last minute.

Leaf of tree for inspection (*W. Jackson*).—The specimen you send is a variety of the common Beech known as Fagus sylvatica heterophylla. It has many synonyms, such as incisa, laciniata, salicifolia and asplenifolia. The common names of Fern-leaved Beech and Cut-leaved Beech are also applied to it. It is usually grafted on to stocks of the type, F. sylvatica, and the bark you send is common Beech bark. When mature it forms an exceedingly handsome tree and is generally admired.

Walnut leaves going wrong (*Mrs. E. E. F.*). The Walnut leaves are attacked by one of the spinning mites, and to them the death of the leaves is due. The attack of these mites is encouraged by dry conditions, and anything that can be done to prevent the tree from becoming dry will help to keep the pest in check. If spraying can be done, it would be well to spray with a solution of potassium sulphide at the rate of 1oz. to three gallons of water.

ROSE GARDEN.

The origin of the Dawson Rose (*W. Green*).—We believe this Rose was raised in the Arnold Arboretum in the United States of America, and resulted from crossing the single-flowered climbing Polyantha Rose, R. polyantha simplex, with the Hybrid Perpetual General Jacqueminot. The best way to grow it is to allow it to ramble away as it likes. Do not prune away any of the young growths, but remove old, worn-out wood soon after flowering. It may be used to form a hedge of moderate height. It also looks charming when running over some old tree stumps, as at Kew Gardens near the ornamental waters.

Old-fashioned Roses (*Dorking*).—You would obtain the yellow Scotch Rose from either of the firms of Paul or of Mr. Turner, Slough. Probably the bright red climbing Rose you refer to is either Vivid or Fulgens. We do not think it can be a Monthly, as these are not specially

sweet. They are, however, splendid for walls where a brilliant bit of colour is wanted. Some good old-fashioned Roses for arches and climbing would be: Blairii No. 2, Chenedole, Coupe d'Hebe, Brennus, Charles Lawson, Aimée Vibert, *Jaune Desprez, Paul Perras, *Rêve d'Or, *Celine Forestier, *Solfaterre, *Gloire des Rosomanes, Baron de Wassanær (Moss), Zenobia (Moss), Crimson Globe (Moss), La Ville de Bruxelles, Mme. Legras, Mme. d'Arblay, Laure Davoust, *Zepherin Drouhin, Félicité Perpétue, Flora, Bennett's Seedling, Ruga, Splendens, Morletti, *Ma Surprise, *Gloire de Dijon and *Mme. Berard. Those marked with an asterisk would be best against south or west walls.

Sweet Briars for hedge (*M.A.G.D.*). You could certainly grow Sweet Briars in the position described, especially the Hybrid Sweet Briars raised by Lord Penzance. A very beautiful sort is Anne of Geierstein, with glowing crimson flowers, and there are several others of varying tints. Plant them in well-dug soil 2 feet apart and cut down to about 2 feet at the time of planting. We think you would also do well to plant the Tamarisk, as it thrives so well near the sea. The variety hispida æstivalis is especially beautiful and fast-growing. Lavender and China Roses on the west side would also make a charming feature in your garden. A lovely Rose for a hedge would be Grüss an Teplitz, and Mme. Alfred Carrière is another. These are very strong-growing, but could be tied down if they grew faster than the Tamarisk. Some good dwarf flowering shrubs to hide a low wall would be Pernettya, Cratægus Pyracantha Lelandii (this could be kept low by pruning), Cotoneaster horizontalis, Berberidopsis (should do very well), Ceanothus Indigo, Amorpha canescens, Caryopteris Mastacanthus, Hypericum moserianum, Cydonia japonica of sorts, Clematis recta, and Japanese Roses, single-flowered, pink and white, with beautiful showy fruit. Some good Philadelphuses are Lemoineii erectus, L. Boule d'Argent, L. Mont Blanc, speciosus, Zeyheri, coronarius, gordonianus and purpureomaculatus.

Tea Roses for exhibition (*Woodpecker*).—You must certainly abandon the idea of growing exhibition Tea Roses under glass to bloom from July to September. During these months Roses are very difficult to handle under glass, and those who force Roses are generally resting their plants at that time. Those who compete so successfully in the Tea Rose classes generally have a number of established plants growing against walls, and some growers rely upon half-standard Briars which, budded last year, would this year give superb blooms from soil suitable for Tea Roses. We advise you to procure a number of healthy half-standard Briars with stems ranging from 1½ feet to 2½ feet. Plant them in October in well-trenched ground wherein plenty of farmyard manure has been incorporated and cultivate them well. Bud them next summer. The following autumn dig in some rich manure, and in February of 1911 apply a good dressing of Tonk's manure. As the buds appear an application of guano or liquid manure will be most helpful. The growths must be severely disbudded, not only to remove the side buds and retain the central one if of perfect shape, but also the small lateral growths that emerge even before the bud shows colour. We think if you do this and bud only good exhibition varieties you will be a successful grower of these superb Roses. A dozen good sorts to grow are: White Maman Cochet, Bridesmaid, Mme. Jules Gravereaux, Maman Cochet, Medea, Mrs. E. Mawley, Muriel Grahame, Mrs. Myles Kennedy, The Bride, Mme. Cusin, Boadicea and Souv. de Pierre Notting. Mme. Jules Gravereaux is one you could grow very well as a bush. If pruned long it flowers from every shoot and produces immense blooms. Although we advise you to try Tea Roses as described above, we should counsel you to grow more of the Hybrid Teas. They are now the exhibitor's mainstay, and you could grow superb specimens on the Briar cuttings from one year old plants, with, of course, the usual care in the preparation of the soil. Those exhibitors that are most successful at the shows invariably bud a quantity of Briars each year, as a large number of the sorts grown are better as maidens than as cut-backs.

Roses with curled leaves (*W. B. L.*).—The curious folding over of the Rose foliage sent is known as leaf-curl. It is supposed to arise from the punctures of the larvæ of the leaf-rolling sawfly. The leaves usually present this curious cylindrical form. If one of the folds is opened, one or more of the green larvæ will be found inside, and when the leaf dies they remove to other leaves; hence the mischief is spread. The best plan to eradicate the pest is to hand-pick the first leaves that are seen to be injured and burn them. When fully grown the sawflies fall to the ground and enter the soil in August, when they at once assume the cocoon form. Here they remain until February and March, when they pupate. Some authorities assert that the pest is introduced to our gardens in the roots of Briars, and recommend washing the roots before planting; but observers may see the same injurious effect upon our wild Roses, and doubtless they arrive in our gardens sometimes from these hedgerow Briars.

Rose Prince de Bulgarie opening badly (*E. G. B.*).—We think the excessive moisture in the atmosphere and the recent heavy rains are mainly responsible for the blooms expanding so badly. If you notice, the outer petals are quite decayed. Some varieties can withstand rain better than others, and this variety is very impatient of moisture. Exhibitors would put shades over such a Rose, but one can hardly do this when the Roses are grown for decoration. We should remove all damaged buds and flowers and concentrate the strength of the plants into the smaller buds, for these Hybrid Teas are such prolific bloomers that they quickly make up for any deficiency in their first crop. It may be that the wash employed for the green fly has been used when the blooms were too near unfolding. It is best when the Roses are in this forward condition to have the green fly brushed off, or else take the shoots affected and immerse them so that the more advanced buds and blooms are not injured by the insecticide. Mme. Constant Soupert has not expanded well at present. This Rose, like most Tea-scented varieties, gleries in sunshine. Try some of it against a south wall another season, for it is a gem and worth some care in its culture.

THE GREENHOUSE.

Forcing Tulips (*B.*).—We do not know any modern work that deals in any detail with Tulip-forcing. General outlines of the treatment to be followed are to be found in any general work on bulbs and bulb culture. If, however, you can procure "Bulbs and Bulb Culture," by D. T. Fish, you will find full instructions how to proceed. It is, however, a scarce work, now out of print, but there is no better book to be had. You might possibly meet with it at some second-hand book shop, and the book would be cheap if you got it for 10s. or 12s. There are full details of forcing Tulips on a large scale for market given in *Le Jardin* for October 5, 1908 (No. 519). Sixpence sent to La Direction du Jardin, 84 bis, Rue de Grenelle, Paris, would, no doubt, procure you a copy. If you would kindly tell us where your difficulties are, we might be able to help with advice.

Marguerites going wrong (*C. C. G.*).—Your Marguerites are very badly attacked by the leaf-burrowing insect, which causes so much trouble to the cultivators of these useful plants. Its ravages seem greatly on the increase, for we have had numerous examples sent us from various parts of the country. The little grubs which cause the mischief are the larvæ of a tiny fly, which punctures the leaves and deposits her eggs therein. As soon as they hatch these grubs commence their work of destruction. Badly infested leaves should be picked off and burnt, and where these pests are not so numerous they may be killed by a pinch between the finger and thumb. Besides this, a sharp look-out must be kept for the little flies, which should be killed as soon as possible. Spraying the plants with quassia extract is by some cultivators recommended, in order to prevent the females depositing their eggs on the leaves. It will be quite safe to take cuttings from the infected plants if you take care that the leaves have no living insects in them.

Gesneras, Melons and Poinsettias for inspection (*A. Houghton*).—The plants are badly attacked by eelworm. The dead roots you send are full of eggs of this pest, and very great care should be taken that none of the soil is used again for potting purposes; it would be far better to burn it all. The pots, too, should be sterilised by washing in hot water. You are right in thinking eelworms are microscopic and the white insects in the soil are the larvæ of insects and feed on decaying vegetable matter, &c. We have had no experience with the soil fumigant you mention.

Paint for pipes in Orchid house (*A. Bousfield*).—You may safely paint the pipes of your Orchid house with boiled Linseed oil and lampblack, to which a little terebine is added. It should be put on and allowed to dry before the plants are taken into the house, and after that it will not injure them in any way. Rain-water is much better than hard water for filling the pipes. There is such a book as "Warner's Select Orchids," but it is an expensive work and now out of print. You might, however, obtain it from a second-hand bookseller. There are several recent works, such as "The Book of Orchids," by W. H. White, Orchid-grower to Sir Trevor Lawrence, price 2s. 9d.; the "Orchid Grower's Manual," by B. S. Williams, price 16s. 7d.; or "Orchids: Their Culture and Management," by W. Watson, Curator, Royal Botanic Gardens, Kew, price 25s. 6d.

Orchids at end of August (*Orchid*).—At the end of August there are very few white-flowered Orchids in bloom suitable for wreaths. You may get flowers of Odontoglossum crispum and Odontoglossum Pescatorei, and possibly the white variety of Cattleya Schröderæ, This last, however, is very expensive. With regard to the price you would likely have to pay for flowers or flowering plants, no rule can be laid down, as the supply of Orchid flowers, especially at the season named, is very limited, and their prices fluctuate day by day. Any large society function, by creating a demand for these flowers, might cause the prices to rise 100 per cent. in the course of a day or two. For a mixed bouquet Cattleya blooms would be available, and sprays of some of the small-flowered Oncidiums may be used to impart a light effect. You will find it expensive to purchase flowering plants of Orchids for the sake of their blossoms, and your better way will be to write to two or three of the nurserymen who make a speciality of Orchid culture, asking what flowers they will be prepared to supply at the date named and the price thereof. Some of the large flower-dealers in Covent Garden Market would also be prepared to quote for a supply of Orchid blooms. These men draw from many sources where large quantities of Orchids are grown, and therefore a few very hot days by sending off the flowers quickly, or a few abnormally cold ones by retarding them to a corresponding extent, would not upset their arrangements as it would yours if you depended on a few plants for the supply of blooms on a particular day.

FRUIT GARDEN.

The cropping of Peach trees (*M. J. H.*).—We think you are very unfortunate in your varieties. Early Alfred, Early Beatrice and Alexander are, on the whole, small and have nothing to recommend them but their earliness. They have all been discarded by good growers for many years. Alexandra Noblesse (which we take your Alexandra to be) is one of the richest and most deliciously flavoured of all Peaches, but unfortunately the tree is an uncertain and light cropper. The same remarks apply to Early Grosse Mignonne. Princess of Wales is a moderately late Peach. It is one of the handsomest as regards colour and size, and the tree is generally a good bearer, but the quality of the flavour is only second-rate. Royal George is still one of the best in all respects. The cause of the failure of your trees to properly set their fruit is not easy to determine. With some of your varieties it is the fault of their constitution; they never do set well. Again, the pollen of the flowers of some of the varieties may be poor and scanty and without the power to fecundise the ovules. Next spring, while the trees are in bloom, take the precaution to pollinate the stigmas of the flowers of those which do not bear freely with pollen from the Royal George tree, and also from the Princess of Wales. This may work wonders for you, as the pollen of these varieties is usually strong and abundant and seldom fails to fertilise the flowers to which it is applied. You say your trees grow freely and are well looked after as regards watering, &c. Possibly they grow too freely and would be benefited by root-pruning in autumn as soon as the leaves have fallen.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

WATERCRESS AS A SALAD.

Seasonable Notes.

WATERCRESS is so well known that many may think it somewhat out of place to note its value as a salad. It is generally used as a spring salad, and on the Continent is a great favourite for garnishing; it is also sometimes cooked like Spinach. When well grown in clean water the leaves are large, tender and pungent. There are not many varieties. The Improved Broad-leaved finds most favour with market growers; but, on the other hand, for salad the smaller, ordinary form, which has a more branching habit, is welcome—at least, it is more spreading. We have grown the plant so that a supply was maintained every day in the year, and this without a stream or water-course; but as the Watercress is an aquatic, it must always have a moist position, though it is unnecessary for its roots to be in water. Few plants are increased more readily or root so quickly. Of course, these remarks apply only to those who wish for a limited or daily supply for the home. We have made beds in a shady spot; indeed, for summer they were in a dell in a damp situation; but Watercress can be grown under a spreading Beech. Not much soil is required—4 inches to 6 inches, and this should be composed of decayed leaf-mould. With regard to the size of the bed, much depends upon the quantities required. We have had three beds in the summer and autumn adjoining each other, 9 feet long and 3 feet wide, and as one bed was cut over, the next was gone on with. Even then at times it was necessary in very hot weather to gather more frequently to prevent the large growths flowering. There must be constant cutting over when growth is active, as the old shoots soon become hard, hot and flavourless. In many cases, with only a small daily supply two beds would be ample—one in use, the other coming on; but if to be successful the moisture should be retained, especially in summer. To do this we make a clay bottom before placing the leaf-soil in position; but, at the same time, stagnant water must be guarded against, as the roots must not be in such water, but only in moist soil. In making the beds they should be on a slight incline and drained at the lower part.

Watercress grows readily from seeds and by division or cuttings. Seed sown in fine soil and kept damp soon results in small tufts, which must be planted out in the beds. These in time may be divided or increased by the strong growths several inches long. They have numerous rootlets, and these if made firm at the planting-time grow away quickly.

Young Beds Formed Late in August or September

will give a winter supply, but it may be necessary to cover them with frames in severe weather. What is required is strong growth before November. When this is cut over it continues to yield in the winter in mild weather if given frame protection. The beds from April to September are watered overhead twice a day with a fine-rosed water-pot. Rain-water is used if possible, but should the plants be at all sodden or a bad colour, keep them on the dry side or replant in new beds. It is well to make new beds; often the old sites may be used, but new rooting material should be added and fresh plants. Old beds when much cut over are not worth keeping, as the growths get poor. For an early spring supply we have always obtained new stock from seed; but at times with an increased demand strong plants or cuttings are obtained from a stream and divided. Much depends upon the quantities required for winter supplies. Excellent Watercress has been grown in

Boxes or Tubs

by sowing seed in October and growing the seedlings in a cold house. Sow the seed in pans in a temperature of 55° to 60°, and prick out the seedlings into boxes when large enough to handle; then grow them in the shade in light soil and damp overhead as required.

There are other ways of culture, such as growing in a shallow stream if this is available, but for winter use other means must be taken. Few plants are more easily cultivated. We have sown broadcast in cold frames and thinned out the plants, also grown a quick supply in small pots; but to obtain material from April to November we adopt the bed system advised above, and then cover with frames, cloches, or hand-glasses in winter. This plan will command a daily supply all the year round, but there must be regular plantings—a bed every month—to maintain a supply of tender, succulent Watercress. In the summer months give more frequent waterings overhead, and for beds declining a good fertiliser or liquid manure is advisable. Of course, those who have a

Running Stream of Clear Water

at their disposal will do well to grow Watercress in this. It will most likely be necessary to clean out the bottom, and if at all muddy, place a good layer of clean sand and fine shingle for the plants to grow in, as Watercress delights in a sandy root-run. The water should preferably be about 4 inches deep, and to maintain it at about this depth all along the stream it may be

necessary to place barriers at about 6 feet intervals, these being formed of thick planks placed on edge, or even thick poles, where these are obtainable. In addition to maintaining the water in each section thus formed at a uniform depth, these barriers prevent the Watercress plants being washed away at those times when the stream is swollen. When the crop has to be gathered it will be found an easy matter to place a plank from one barrier to another, and this will form a sort of platform on which the grower can stand. A stream dealt with in this way can be planted at any time, but preferably in autumn or spring.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

August 21.—Keighley Horticultural and Paxton Society's Show.

August 24.—Rothesay Horticultural Society's Show.

Horticultural Trades Association's annual meeting.—The nurserymen's congress is now a well-established affair, this being the tenth annual meeting of the association, but none of the previous meetings has approached in pleasure and interest the one just concluded in Belfast. The meeting was favoured by three days of perfect summer weather, which, of course, added immensely to the pleasure of the excursions, and at the same time enabled the party to see the famous Belfast Roses at their best. Everyone is familiar with Irish Roses, but many, even of those in the trade, were not aware of the immense extent to which the industry of raising new varieties has developed in this neighbourhood. Some idea of this may be gathered from the fact that three firms, viz., Messrs. Alex. Dickson, Hugh Dickson and McGredy and Son have this season each some 40,000 plants out for trial, and one of them last year burnt a batch of rejected seedlings which covered several acres, and at the lowest wholesale rate for ordinary varieties would have been worth £300. Many of the novelties seen are still unnamed, so that no useful purpose would be served by detailed descriptions, but it is a pleasure to record that the raisers have broken away from the rather monotonous series of blush and cream flowers we have been receiving of late years and have some glorious crimsons, yellows and mixed orange and pink shades which will make a sensation in the near future. The association spent a day at Castlewellan, where the late Earl Annesley formed a garden unique for the extent and rarity of its collection of flowering and other shrubs and the marvellous beauty of its surroundings. Mr. Smith's nursery at Newry was also a revelation to many of the visitors, both from its picturesque situation on the mountain side and its wonderful collection of plants and shrubs, which probably for extent and rarity is unequalled in any nursery in Europe. The evening meetings were passed in routine business (the election of officers, &c.) and the discussion of matters of trade interest, such as the effect of the proposed new land taxes upon nurserymen and seedsmen. These, it is scarcely necessary to add, are, owing to the position of most nurseries in the suburbs of the larger towns, a matter of most serious concern. The gathering was a most instructive and pleasant affair, and was made doubly enjoyable by the hearty welcome and generous hospitality which met us at every turn. —CHARLES E. PEARSON, *Hon. Secretary.*

Flowers at the Zoological Gardens.—These famous gardens, situated on the north side of Regent's Park, are probably known to most people as the home of a wonderful collection of animal-life, and so absorbed are visitors in this that the many floral beauties to be found there are usually overlooked. For many years past Celosias have been grown on a very extensive scale for bedding purposes, and though the present summer has not been at all favourable for these plants, some excellent examples may be seen in the beds at the present time. We recently spent a pleasant hour or two in these gardens with the able head-gardener, Mr. Young, and were greatly charmed with much that we saw. The bedding is in most instances of a very high character, the brilliant colour-schemes being well conceived and carried out. In front of the saloon Roses were flowering in profusion, these being chiefly Hybrid Perpetuals, Gladioli being planted between the bushes. These were just coming into bloom, and we noticed several of more than usual merit among some of Groffs' hybrids. In close proximity is a very beautiful and well-stocked herbaceous border that reminded us forcibly of a country garden, and it was difficult to realise that we were still in the great metropolis. Seedling Carnations were used freely in some of the beds, and these were flowering in a remarkably free manner. Near the lion-house we were much pleased with a large bed of pink Hydrangeas, with standards of golden-leaved Privet towering above them, the effect being simple but good. On the opposite side was a real old country border, freely planted with Rambler Roses, Fig-leaved and other Hollyhocks, Erigerons, Gladioli, Tobacco and other plants, the result being a mass of simple but attractive beauty. In front of the bear-dens and along towards the monkey-houses the bedding is very effective indeed, an arrangement that is particularly striking being carried out with white Violas as a groundwork, dot plants of bright crimson Celosias being freely employed, the whole being edged with golden-leaved Fuchsias and Alyssum maritimum. Vases of flowers are also of high quality, an arrangement in front of the Fellows' tea-house being a good representation of a shower bouquet. In the reserve garden, but in full view of the public, we were rather surprised to find an excellent row of Sweet Peas, the flowers giving forth their delightful fragrance to the enjoyment of many visitors. These gardens during the next few weeks will be quite worth a visit for the sake of the flowers alone, and we congratulate Mr. Young on the success obtained under trying climatic conditions.

A gathering of Fern enthusiasts. The eighteenth annual meeting of the British Pteridological Society was held at Kendal on August 2, the president, Mr. J. J. Smithies, in the chair. The accounts disclosed a balance in hand of £59 15s. 6d. Forty-one new members were elected. It was decided to issue to the members a quarterly publication devoted to the objects the society has at heart. For this purpose a publication committee was appointed, with Dr. F. W. Stansfield, Reading, as chairman and Mr. C. T. Druery, F.L.S., V.M.H., as editor. Mr. Alexander Cowan, Penicuik, Midlothian, was elected president of the society for the year ending August, 1910. Mr. Druery sent a frond of his new seedling raised from spores discovered by Dr. Stansfield upon Mr. Green's plant of Polystichum aculeatum pulcherrimum; it is a great advance upon the parent, and was very much and deservedly admired. Mr. Cowan exhibited a frond of his seedling Asplenium Filix-fœmina setigerum congestum. The meeting was the best the society has had for some years. It was decided to hold the next meeting at Moffat on August Bank Holiday, 1910.

Front gardens at Kingston-on-Thames.—Some ten years ago the Kingston Town Council conceived the idea of offering prizes for the best-kept front gardens and house-fronts in different sections of the borough, and since that time the judging of these has been an annual event keenly looked forward to by the residents. Only those houses that are not rated over £20 are eligible, the idea being to induce the working classes to take an interest in beautifying the fronts of their cottages. In company with Mr. A. Dean, V.M.H., who has from the first taken a keen and active interest in the movement, and who acts as one of the judges, we had the pleasure last week of inspecting those gardens which have this year secured prizes, and were much surprised with the really wonderful results which have been obtained under exceedingly difficult and trying circumstances. The extraordinary variety seen in these small patches was a feature of all the gardens or house-fronts, and the tremendous amount of work entailed in planting and tending the flowers can only be explained by the grower possessing a very deeply rooted love of gardening. In making a tour of these prize gardens we were able to compare them, in some cases, with others alongside them that are more or less neglected, and the transformation effected by this judicious use of beautiful flowers was really wonderful. This movement is a most praiseworthy one, and might with great advantage to the community be adopted by every town in the country. School gardens have for some time been an important feature at Kingston, and the splendid Canbury gardens and parade, alongside Father Thames, are now very beautiful indeed, and we think residents owe a large debt of gratitude to those who are responsible for the creation and upkeep of these charming places.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Floral decorations at London stations.—I do not know now whether THE GARDEN has recorded the fact that the District Railway are decorating some of their stations with flowers; Earl's Court Station, for one, is being decorated with hanging baskets of Geraniums and other plants. There are a dozen at the Exhibition stairs of the platforms and some at the other end. This decoration of town stations is a movement that should be encouraged in every way. I suppose Aspidistras would even thrive in the tube stations. [Query.—ED.] When I was in Newcastle some ten years ago that station and others—Tynemouth, I remember—were decorated with flowering and other plants. Why London should have waited so long is a mystery. I believe the manager of the District Railway, who is introducing this floral decoration, comes from a northern railway. — W. FRANK.

Ostrowskia magnifica. — When properly grown this is one of the most striking herbaceous plants in cultivation, not only on account of the large, Platycodon, bell-shaped flowers, but also from its various beautiful tints ranging from white to purple. I have had this plant in my garden for some years, and experience teaches me that the better the plant is ripened in the autumn, the greater the effect the following year. My plants are grown and flowered in the open among Heaths. Last year, immediately after flowering, I covered one plant with a side-light, which was not removed until the early spring, and I find that this plant is far more vigorous and gives better results this year than any of the others. The effect of using the side-light, of course, was to ripen and keep the roots dry during the winter. I send you various blooms, and have marked those of the plant which received this special treatment. You will see that they are finer and larger than any of the others. [Yes.—ED.].—JOHN MCWATT, *Morelands, Duns.*

In a County Down garden.—Strong sunshine has come at last, ripening the Melons in frames and putting the purple red ripeness into the cheeks of the Gooseberries. The Strawberries are all over; they were very plentiful in many gardens here this year, but a mistake in

their cultivation made them scarce with us. The fact is they have been grown too long on the one bank. It must now get a rest and be cropped with vegetables for a time. Loganberries gave a grand crop, and they do well mixed with Raspberries as a preserve. Red Currants made a fine show, their careful pruning giving a good crop; but Black Currants are scarce here owing to the Government regulations regarding the extinction of the mite. In the hardy border the Inulas, Gaillardias, Funkias, Pyrethrums and Alstrœmerias have been very conspicuous; and Jerusalem Sage flourishes like a Nettle in a stackyard. Among other things worth growing are the Buddleia and Saintfoin, also a pretty variety of the Periwinkle with small golden flowers. I see also that Vitis Coignetiæ is flourishing.—WALTER SMYTH, *Holywood.*

Roses in a North London garden.—The bed of Roses in the front of the illustration is Caroline Testout, that growing up the pillar is Tea Rambler, while in the background is a good plant of that delightful trailer Gardenia. It is planted in the slope of the terrace leading into the Rose garden and extends right and left, as shown in the illustration. The standards and dwarfs on the left are Ulrich Brunner, Hugh Dickson, Mrs. J. Laing and Mrs. S. Crawford. By the steps near the door is to be seen a specimen of the Gum Cistus, briefly referred to on page 359 of THE GARDEN for July 24. The garden is at Ken View, Highgate.—C. T.

British-raised Roses.—I feel sure that, besides myself, many readers would appreciate a list of really British-raised Roses. It would be a tribute also to our British nurserymen and amateurs, who have accomplished so much in recent years in the way of hybridising. Here are the names of a few noteworthy sorts that occur to my mind: Mrs. W. J. Grant, Mildred Grant, William Shean, Juliet, Ariel, Queen of Spain, Cleopatra, Mrs. Edward Mawley, Dean Hole, Muriel Grahame, Souvenir de S. A. Prince, Hugh Dickson, Mrs. John Laing, Her Majesty, Prince Arthur, Duke of Edinburgh, Mrs. R. G. Sharman Crawford, Margaret Dickson, C. J. Grahame, J. B. Clark, Lady Ashtown, Ben Cant, Medea, Sulphurea, Corallina, the Bourbon, Mrs. Paul, Betty, Beauty of Waltham and Duchess of Bedford.—C.

LARKSPURS AT ENFIELD.

MR. AMOS PERRY of the Hardy Plant Farms, Enfield, is known the world over for his whole-hearted and lifelong devotion to hardy plants, and, indeed, it would be an impossible thing to-day to find anyone so full of incident, reminiscence and enthusiasm for the flowers of his choice. Vigorous of mind and body, though naturally in the latter a little less so than of yore, and equipped with that fulness of knowledge that a lifelong experience alone can bring, Mr. Perry may safely be regarded as a sort of unique personality to-day, when hardy plants play so important a part in the decoration of our gardens, as well as the leading exhibitions all over the land. Time was, however—and Mr. Perry is not unmindful of the same—when hardy plants were rarely, if ever, seen at a provincial show, and when, even in the leading London exhibitions, two or three dozen in pots constituted a more or less fragmentary representative display of the plants, and for which room was tardily found and with not ill-concealed grace.

Our special mission to Enfield on this occasion, however, was not the historical side of the subject, but to have a look at one item or one group of a stupendous programme, and that item the Larkspurs or Delphiniums, which are so great a feature in these nurseries, and which probably display as much of progress and improvement, both of flower and spike, as it is possible to conceive. Stature in the days of small flowers was ever a strong point of the plants, while to this to-day is added giant flowers and bold spikes that compel admiration at once. Nor do the improvements end here, for we may look at brilliant shades of blue, light and dark, of every conceivable shade, well set upon finely built spikes that render the plants indispensable to every garden. What we saw at Enfield in the heyday and beauty of the flowering of the Larkspur, apart from the brilliant spectacle afforded by the stocked acres and many thousands of plants, is possible in every garden where a well-dug border or bed is available for the plants.

Those at Enfield are growing upon land that a year or two back was either field or woodland; hence the soil is not specially adapted to the group under notice. That it will respond to generous treatment and that the plants will presently receive the fuller benefits therefrom there is no doubt. For the present, however, the plants are luxuriating in maiden soil, and is unknown at Enfield; indeed, the task would be an impossible one on so huge a scale. Moreover, the plants are valued for stock, and are grown in the most natural manner possible. What are distinctly interesting to see are the hybrid forms of D. Belladonna, the type for a long period of years never having borne a fertile seed. Quite recently, however, a number of forms have appeared bearing marked affinity to the original, and which in turn are calculated to produce a new and dwarf race of these plants. During recent years, too, developments have been apparent in the white and sulphur coloured sections, and while these do not appeal so strongly to some as do the blue-flowered varieties, they are certainly of interest and merit, and are unmistakably epoch-making. If in Mr. Perry's own words his desire has been "to make his collection of these the finest in the world," his teeming acres of the plants must indeed be very gratifying towards such an achievement. One thing we can say, that, with nearly forty years' experience of this race of plants, we have seen nothing to approach it.

ROSES IN A NORTH LONDON GARDEN.

the beds of plants, tier above tier as it were, on a sunny slope make a picture of supreme beauty and afford a feast of colour rarely, if ever, before seen in any one group of plants.

Those of our readers who have seen the huge banks of cut Delphiniums at the leading London shows, *e.g.*, Holland Park and Vincent Square, must of necessity realise that this fine group of flowering plants is one of the leading features of these nurseries; and, indeed, this is the fact. Not content with the raising of seedlings at home, Mr. Perry has scoured the Continent for anything of merit, and to such an extent that his collection to-day is probably unique, scores of the finest varieties each being represented by hundreds of plants. There is no attempt here at the mere creation of varieties to produce a formidable list, but rather by weeding and selection to reduce such a list to the narrowest limit in face of the demand and a great variety of tastes. Nor is there any attempt at special culture, quite the bulk of the exhibited spikes of the year having been taken from yearling plants grown in the usual way in nursery beds.

Feeding or gorging the plants with animal or artificial manures for the purposes of exhibiting

It is in these circumstances that we do not propose to give readers a long list of varieties, though a few select sorts may not be out of place. Of these we take Her Majesty, soft rose and Cambridge blue; Duke of Connaught, rich Oxford blue, bold white eye; Maggie Perry, azure blue; Lilacina, clear lilac, said to be the largest yet raised; Carolina, clear light blue with conspicuous white centre; Antigone, ultramarine blue and violet, a novelty of unusual merit; Perfection, rich sky blue; Persimmon, lovely sky blue; Queen Wilhelmina, soft lavender, flushed rose, white eye, a grand thing; and Masterpiece, rich gentian blue with white eye, most telling. The above are a few of the gems among single-flowered varieties, while a few doubles should include Danube, La France, Amos Perry, Candidat (one of the very best), Pedro Hamel, David, King of Delphiniums, Kaiserin Augusta Victoria, Sir George Newnes (a great favourite with gentian blue flowers) and Perry's Favourite, which is of a rich cornflower blue. These are, of course, but a fragment of the whole, though, if we mistake not, they are sure to give satisfaction to every lover of the flower.

THE FRUIT GARDEN.

STRAWBERRIES FOR LATE DISTRICTS.

THE Strawberry may now be had in endless variety, and, needless to say, there are but few of these that will give entire satisfaction under all conditions of climate, soil and exposure. During many years' residence in a rather high, late locality I have taken a good deal of interest in the selection of varieties to suit our requirements, and although still giving a trial at times to new sorts, I have now secured those that give very satisfactory returns each season, let it be good or bad. That almost universal favourite, Royal Sovereign, I am about to discard in disgust, as I have had much disappointment with it. It thrives and fruits all right, but it is so easily damaged by wet weather that not more than about a third of the crop is fit to pick. It rots even before colouring, so that one can do nothing with it. The main reason for failure with this variety lies in the fact that, our soil being very strong and moist, the plants make far too strong foliage, and so prevent the sun and air from reaching the fruits. Until two years ago I could find no satisfactory substitute, and so continued to cultivate it notwithstanding its serious faults; but now I can safely do away with this variety, as Laxton's Leader ripens here quite as early, gives twice the crop and is also of excellent quality. The fruits may not be quite so nicely shaped, as they are a little rough in outline, but they are of a fine uniform dark crimson colour, with good flavour; and, what is of very great importance where large quantities of dessert fruits are in demand, they stand wet remarkably well. The fruit-trusses are supported on very stout stalks, and so the fruits rest but lightly on the mulching, and rotting is less likely to take place. The plants are quite vigorous, but dwarf, and, what is of great importance to many growers, the life of the plant is much longer than that of Royal Sovereign. On August 3 I was picking beautiful fruits, and plenty of them, from plants carrying their third crop. I intend, as an experiment, to try them yet another season, and hope to report results a year hence.

Duke of Edinburgh, a much older variety, follows Leader, and is one of the finest-looking dessert Strawberries in cultivation when well grown. It requires very generous treatment, but lasts well when so treated. It is dwarf in habit and gives a good crop.

President is so much given to mildew in some seasons that I have had to dispense with it. Sir J. Paxton gives fine fruit, but grows so tall and the crop is so light that it, too, has had to go. For preserving, nothing can come near Garibaldi; it carries an extraordinary crop, and the first pickings are quite fit for table. It is a delicious Strawberry, and many gardeners in this locality grow little else. Laxton's Noble, if it only had a little more flavour, would be hard to beat, as it carries very heavy crops of handsome, round fruit, and the plants are vigorous and easily grown. For late work the old Elton Pine is the only reliable sort here, and does really well.

I am giving Countess and Laxton's Fillbasket a trial, but they will not fruit till next year. Might I be allowed to give a hint to the various able writers who contribute to the pages of THE GARDEN and who give only a *nom de plume* or initials. Like numerous other readers, I find most useful and instructive papers each week, but as there is seldom any mention made of the locality from which the notes come, there is often little chance of profiting from the advice given. If each writer would but add the name of his county after his pen name, it would greatly enhance the value of such advice.

C. BLAIR.

Preston House Gardens, Linlithgow.

THE NEW NARCISSUS ELFRIDA PEARSON. (*Much reduced. See page 409.*)

FRUIT NOTES.

RASPBERRIES AFTER FRUITING. — A common error in the cultivation of Raspberries is to leave the canes which have produced the season's crop on the plants until the ordinary winter pruning of fruit trees. This should never be the case. It is absolutely certain that they will never yield more than one crop, and the sooner, therefore, after this has been harvested that the stems are cut clean out the better. It must always be borne in mind that not only will they not give the grower any further return, but that so long as they continue on the stools they will be doing direct harm, since light, air and sustenance which ought to be going into the canes that will bear the fruit next year are passing into the old ones. There should neither be half measures nor delay in their removal; cut them all out right from the base and take them away to the rubbish-heap, or save the best of them for use as stakes to support other plants. At the same time it is excellent practice to reduce the number of new shoots to five or six at a stool, unless a certain quantity is required for the formation of fresh plantations, when these must, of course, be permitted to remain. Upon the completion of this work the soil should be loosened above the roots, but the utmost care is imperative, as this plant is essentially a surface rooter, and to dig deeply will inevitably do serious injury to the plantation. This done, a heavy mulching of equal proportions of decomposed leaf-mould and sweet stable or farmyard manure must be applied in order to provide an abundance of food for the plants.

SUMMER PRUNING.—In those instances where the summer pruning was commenced early it will now be wise for the cultivator to go over all the trees again, closely examining each one with a view to the immediate removal of the shoots that will almost assuredly have sprung from beneath the point at which the pruning or pinching was originally done. The rule in relation to them should be to cut back to two leaves. This will aid substantially in strengthening the buds below, and the prospects of a superior crop in the succeeding year will thus be decidedly improved. At the same time any foreright shoots that have been allowed to remain up to the present date must also be cut out from the point of origin, since they can never be of permanent value to the tree. Heavy soakings of water, and frequently also of liquid manure, will do good, especially in the case of trees growing on walls, and which, as a consequence of the position, very often suffer from dryness at the roots.

OUTDOOR VINES. — Although these will yield really useful crops of fruit when they are correctly managed and growing in favourable positions, it is comparatively rare that one sees them in good condition in the gardens of amateurs. Generally speaking, they are allowed to become tangled masses of useless laterals, and because they do not then produce satisfactory bunches they are promptly condemned as unsuitable for outdoor treatment. If they are represented they should have intelligent attention. At the present time it is impossible to do very much beyond the entire removal of growths that are obviously useless and the maintenance of an ample supply of water at the roots to assist the finishing of the crop. It will almost always be essential to supplement the clear water with liquid manure, especially with old Vines, since it is practically certain that they will long ago have exhausted the soil about their roots of all the nutrient matter it ever contained. Encourage the plants to grow well and they will respond generously.

WATERING STRAWBERRIES. — Young plants that were put out a week or two back for the formation of new plantations will demand regular attention in watering. The soil is nearly always dry in August, and if it is allowed to remain so for more than a few hours, it is perfectly certain that the plants will receive a check from which it may take them some time to recover. It is also necessary to use the hoe frequently, not only to arrest the waste of food, but also to prevent the weeds, which grow apace in late summer, from getting established. FRUIT-GROWER.

THE GREENHOUSE.

NOTES ON ORCHIDS.

THE COLOMBIAN SECTION OF ODONTOGLOSSUM.

IN my last article I mentioned Lælias and Cattleyas as suitable Orchids for the amateur who personally attends to his collection; but this week I suggest another group, viz., the Odontoglossums whose native habitat is Colombia. They include some of the showiest members of the genus, such as the popular and well-known O. crispum (the Alexandrian Orchid), with its host of beautiful varieties, both pure white and spotted—harryanum, luteo-purpureum, Pescatorei, triumphans and sceptrum; while the hybrids embrace such gems of the Orchid world as Rolfeæ, ardentissimum, loochristiense, harryano-crispum, wilckeanum and the varied andersonianum, many of which are produced in quantity and can be purchased for a moderate sum. For many years the only kind of house considered suitable for cool Orchids was one with a north aspect, and writers in general advocated such a structure; but now we find that this is not essential—in fact, some present-day growers say any aspect but a north one. I refer readers to the article of July 10 for details concerning the type of house for Orchids.

During the winter the thermometer should read at night 50° Fahr. and at midday 55° Fahr., while for the summer months the minimum can be raised 5° and the maximum kept as low as possible whenever the weather is hot. Blinds will be necessary, as Odontoglossums are shade-loving subjects, and I find blinds made of wooden laths are preferable to canvas, as they are better for rolling down at night whenever it is cold and frosty. Careful ventilation is the keynote of successful Orchid-growing, particularly with Odontoglossums, or the atmosphere becomes dry and parched when no good results can be obtained. Through the greater part of the year a little air both top and bottom may be left on day and night, the only exceptions being during extreme frost and when fumigating is being done. A moist, buoyant atmosphere is needed, and whenever the elements warrant the use of the syringe, a light spray overhead may be given with advantage.

Where a quantity of Odontoglossums are cultivated, an occasional plant will need repotting at different periods, but the bulk should be taken in hand the latter end of August or early in September, and the collection must be gone over again in February to repot any that were not ready in the autumn. All Orchids ought to be repotted when root-action commences. With Odontoglossums this takes place directly the new growth is 3 inches or 4 inches high. Having selected one that needs a larger receptacle or top-dressing, the roots are examined to see if they are alive or dead. Where they are in a healthy condition, very little disturbance will be needed beyond cutting away some of the back bulbs, two, or at the most three, being sufficient behind each growing point. It sometimes happens that the roots are decayed. When such is the case, remove the old soil and dead roots, after which the plant is placed in a pot just large enough to allow for a little compost and carefully tended till it is re-established. When top-dressing the surface soil is picked out and replaced with new. This operation is usually done when the top compost has gone sour while the plant does not require a larger pot.

An ideal potting mixture is made up as follows: Osmunda or Polypodium fibre, chopped sphagnum moss, fibrous peat and partly decayed Oak leaves in equal proportions, with a sprinkling of crushed crocks and silver sand added. The leaves are those collected last autumn and stored in a dry shed and now rubbed through a half-inch sieve, afterwards using a finer mesh to extricate any dust, which will leave a light, flaky material so much appreciated by the majority of Orchids. Ordinary flower-pots are chosen and filled one-fourth of their depth with drainage, either utilising broken potsherds or peat sticks; if the latter, they must be thoroughly dried to prevent the appearance of fungus.

After being disturbed at the roots only keep the surface soil just moist for a few weeks, but as growth advances increase the supply till the pseudo-bulbs are fully matured. It must, however, be remembered that they do not require a resting season like Calanthes, although the amount of water necessary after the completion of growth is naturally less.

Imported Odontoglossums arrive at intervals in their thousands, and often the beginner is tempted to purchase a few first-hand. The best pieces to secure are those with dormant eyes and plump bulbs, but not necessarily the largest specimens, which often only possess one lead. Directly they are received all dead bulbs and decayed parts are removed, after which they should be thinly laid upon a layer of sphagnum till growth begins and new roots are seen issuing from the base. At this stage they can be potted into receptacles just large enough to comfortably take the bulbs, seeing that plenty of drainage is employed for the initial potting. After the first growth more root space will be required.

SENTINEL

A PORTION OF THE ROCK GARDEN AT CHADDLEWOOD, SOUTH DEVON.

THE FLOWER GARDEN.

NARCISSUS ELFRIDA PEARSON.

THE type of Daffodil of which Elfrida Pearson is a very beautiful example is, in every sense of the word, a modern one. If we look through the old illustrated flower books, such as those of De Pass, Gerard, Hill and Sweet, we will find nothing like it. The truth is that until the advent of Mme. de Graaff and Weardale Perfection such flowers were impossible. It is only when some of these new large white trumpets are mated with some of the old Leedsiis that we get as a result this new giant race. Mr. Duncan Pearson, of the firm of Messrs. J. R. Pearson and Sons of Lowdham, has more or less made a speciality of this particular type, and from what he told me, and from what I saw when I visited him last spring, no hybridiser with as small an amount of seed can have obtained more satisfactory results. In his case, Minnie Hume and either Mme. de Graaff or Weardale Perfection are the parents. From the former cross he obtained, among others, Lowdham Beauty (which, it may be remembered, was singled out by the Royal Horticultural Society's deputation at Birmingham for an award of merit), and from the latter Elfrida Pearson. A glance at the illustration on page 408 will show the evenness and refinement of its pure white perianth and the delicate mouldings of the pale yellow cup. It is a large flower, measuring about 4½ inches across. At present there are only two or three bulbs in existence, but when a little stock has been got together and it is introduced into commerce, another flower will be added to those in the front rank of the giant Leedsiis.

Two other beautiful varieties of this type are worthy of mention as having been raised by Mr. Pearson, viz., Capella and Marguerite Durand. Capella, although a giant, is a small giant, and is distinguished by the gracefully curved rim of its long cup, which opens pale yellow and becomes ivory white with age. The flower of Marguerite Durand has the remarkable property of opening a creamy white, and as it grows older deepening in colour until it becomes a lovely shade of pale yellow. It is then almost a self. The segments of the perianth are broad and pointed, and the cup deep and long.

JOSEPH JACOB.

AN INTERESTING ROCK GARDEN.

THE garden at Chaddlewood, the residence of Mr. G. S. Soltan-Symons, is certainly one of the most interesting in South Devon, for every portion of it has been tended with the utmost care for a lengthened period. The rock garden is the owner's special hobby, every stone having been placed in position either by himself or under his immediate supervision, and almost every occupant planted by his own hands. Some of the rock masses are very fine in form, and afford sites to suit the varied requirements of the often too fastidious tenants. It is not merely a garden of alpine plants, for numbers of shrubs, perennials and annuals remarkable for their beauty of form or flower have been introduced with the happiest results.

From the main rock garden a path leads into a recess with high rock sides, which is devoted to

rare Ferns, Primulas, Philesia buxifolia and other shade-loving plants. On either side of the entrance, at a height of about 4 feet from the ground level, stand two splendid specimens of the Japanese Maple (Acer polymorphum dissectum), the one pale green and the other deep crimson. These have been planted nearly forty years and are several feet in diameter. Erica lusitanica, better known as E. codonodes, attains a height of 10 feet, and springs up profusely from self-sown seed.

Many years ago Androsace lanuginosa was one of the sights of the garden, falling over the rocks in a dense sheet for a height of 10 feet and fully 3 feet in breadth. Then it unaccountably died out, and for several years it could not be induced to live, but now has been again established. There is also a fine breadth of Androsace sarmentosa. All the best species of Saxifragas, Sedums, alpine Pinks, Phloxes, Aubrietias, Campanulas and other perennial rock plants are successfully grown; Palms and Yuccas are seen in the background, and in the spring a brilliant effect is produced by numerous bushes of Azalea mollis, sulphur, yellow, orange and scarlet, blooming among the alpines. In the summer the large crimson flowers of Lotus peliorhyncus make a bright spot of colour.

The Rose walk, nearly 100 yards in length, with the plants trained overhead on iron arches, is in July a dream of beauty, and a long herbaceous border has lately been constructed beneath this which is filled with good collections of the best plants. Shrubs are excellently grown and there are fine specimens of Tricuspidaria lanceolata and Drimys Winteri.

W. FITZHERBERT.

SOME GOOD DAFFODILS TO BUY NOW.

IN making out this list of some of the newer Daffodils, I have been mainly influenced by their garden usefulness. Many of the red-cups and red-edged varieties look very nice on the show-table, but, because they burn badly in the sun, are not so desirable as they otherwise would be as border plants. This will explain why comparatively few of them are included. At present I am very shy of advising anyone to buy many of the large-eyed Engleheartii. My experience has not been very promising, and I fear I am not alone in this respect. I was about to give a long price for a bulb of one of them last year; but when I ordered it the dealer most nobly wrote and said, "I do not advise you to have it; it is a miffy gentleman." I think it would be most useful information if those who have grown Engleheartii varieties, such as Incognita, Gold Eye, Concord, Dorothy Pearson, Astrardente, Coreen and Egret, would give readers of THE GARDEN the benefit of their experience, and I feel sure the Editor would open his columns to such communications. [Yes.—ED.] I am very fond of their great large eyes, and think this new type of flower exceptionally pleasing.

As I wish this list to be useful to those about to order new varieties, I have limited myself to flowers whose money value is under a guinea, and I have put the approximate price after the name. The descriptions are short, but I hope they will prove a sufficient guide to a good selection.

Alert (6s.).—A very early long trumpet; trumpet deep yellow, the perianth a little paler; lasts in flower a long time.

Argent (1s.).—A very distinct new type of double Daffodil, long creamy white segments standing out conspicuously from the short pale yellow ones; lasts well.

Ariadne (1s. 6d.).—A beautiful white Leedsii with a large, much-expanded, saucer-shaped cup.

Blackwell (1s.).—An early flowering variety with a beautiful orange red cup which stands the sun; perianth yellow.

Cassandra (1s. 9d.).—A magnificent Poet, remarkable for the broad, overlapping segments of its perianth and its rather small red-rimmed eye; a robust grower.

Comus (2s.).—In my opinion a Poet second to none, rather late to bloom. Its Almond-shaped perianth segments are of a peculiar solid glistening white, and the large eye has a ribbon edge of brilliant red.

Dorothy E. Wemyss (9d.).—A tall, late-flowering variety; it has a cream-coloured perianth and a canary yellow cup margined red; valuable for succession.

Diana (20s.).—A beautiful giant Leedsii, with a large disc-like eye of pale yellow and a large reflexed white perianth.

Duke of Bedford (7s. 6d.).—A fine early bicolor trumpet; immense flower; grand robust grower.

Evangeline (15s.).—A beautiful plant for the garden, as its flowers stand up so well about the foliage. It is a bicolor Homespun; no higher praise can be given it than this.

Eyebright (2s. 6d.).—This flower nearly resembles the Poeticus section; the bright red margin of the eye is very distinct.

Firebrand (2s.).—A rather small flower which is noted for the intense red of its cup; perianth pale yellow. It stands the sun fairly well.

Hamlet (5s. 6d.).—A large, long trumpet variety of a pleasing shade of soft yellow; a handsome flower.

Homer (2s.).—A very good Poet with an ornatus-like perianth and eye.

Homespun (20s.).—A charming flower of a uniform clear yellow in the cup and perianth; it has probably received more awards of merit and premier prizes than any other variety; it is, too, a grand garden plant.

Horace (1s. 9d.).—A new Poet with an all-red eye; large round perianth.

King Alfred (6s).—A superb long trumpet of massive proportions and of a rich deep yellow colour; unfortunately, it does not thrive everywhere, but now it is so much reduced in price is well worth a trial.

Lady Margaret Boscawen (15s.).—An ideal garden plant, robust in growth, lasting in flower and striking in size; perianth white; cup yellow; specially recommended.

THE NEW YELLOW-GROUND FANCY CARNATION JUPITER.

(*Natural size. See page 411*)

Lucifer (1s. 6d.).—A striking, large-cupped variety, not a very tall grower, but *facile princeps* among the red cups because of its lasting properties; perianth white and starry.

Monarch (5s.).—A beautiful, refined, long-trumpet variety of medium height; remarkable for its form and substance; perianth and trumpet yellow.

Outpost (6s.).—A profuse bloomer; may be described as an early-flowering Emperor, blooming from a week to ten days before that variety.

Torch (2s.).—A tall, spidery-looking variety; perianth yellow, with the segments long and twisted; its conspicuous red cup stands the sun exceedingly well. Fine in clumps in the border.

White Lady (1s. 3d.).—A charming small-cupped Leedsii, strong-growing and free; cup much crinkled, pale canary yellow; perianth white and overlapping; of much substance.

White Queen (21s.).—This may be described as a white Sir Watkin; it is not as tall a grower as the size of the flower would lead anyone to expect. With age the cup, which opens pale lemon, goes quite white like the perianth; very beautiful.

Weardale Perfection (5s.).—A large and refined trumpet variety; the perianth is a creamy white and the trumpet pale yellow. It is a vigorous and robust grower. JOSEPH JACOB.

CARNATION JUPITER.

THIS is a very distinct and handsome yellow-ground fancy variety of much merit, the ground colour being freely marked with clear rose pink lines. As will be seen in the illustration on page 410, the flower is of good form. It was shown by Mr. Charles Blick, Warren Nurseries, Hayes, Kent, before the Royal Horticultural Society on the 3rd inst., when it received an award of merit.

TREES AND SHRUBS.

CORNUS CAPITATA.

(BENTHAMIA FRAGIFERA.)

SEEDS of this tree were sent to Mr. Tremayne of Heligan in 1825. Seedlings were raised, and these were placed in a glass house, which they soon outgrew, and were then planted in the open. After about twelve years' growth they commenced to flower, and later on produced fruit freely, seed being distributed to many neighbouring gardens. Flowers and fruit were sent to Kew, and the authorities decided that the tree was a new and totally unknown genus. The plant was awarded a silver medal by the Royal Horticultural Society in 1838, and was then named Benthamia fragifera, after the secretary of the society at that time. Many of the early examples are still at Heligan, and these must be fully 45 feet in height. The tree is universally known in Devon and Cornwall as Benthamia, the new title of Cornus capitata not being recognised. In Cornish gardens it is quite a common tree, and at Menabilly there must be hundreds.

Where afforded ample space the Benthamia forms a spreading tree with the branches sweeping the ground. There was formerly a fine specimen on the lawn at Enys, which was illustrated in THE GARDEN of September 15, 1906; but this has, unfortunately, since been cut down. This was one of the finest isolated specimens known, for as a rule the trees are planted in woods, where they have no chance of assuming their rightful proportions. The best example probably now in existence in the British Isles is one on Lord Barrymore's estate at Fota, County Cork, Ireland. This noble tree is about 35 feet in height and has a branch-spread of 63 feet, and when smothered in flowers or loaded with fruit is a marvellous sight.

The Benthamia is at its best at the commencement of July, when the large, pale sulphur flowers are fully expanded and the trees, with every branchlet covered with the showy blossoms, present beautiful pictures, being particularly lovely by moonlight. To speak of flowers is, however, incorrect, as the true flowers of the tree are inconspicuous, the large, pale yellow segments that appear to form the blossoms being really bracts.

Its English name of Strawberry Tree, which it shares with Arbutus Unedo, is due to its beauty when bearing its crimson fruits in profusion. Towards the end of October these begin to colour, and are often borne in such quantity as to weigh down the branches. The largest fruits are often as much as from 4 inches to 5 inches in circumference. A tree weighted down with fruit is an exceedingly pretty sight and almost rivals its appearance when in the perfection of its bloom. The fruit, if undisturbed, will hang until after Christmas; but in some seasons and localities the birds commence to attack them as soon as coloured, and completely spoil the ornamental effect of the trees at this season of the year.

While the berries still hang on the tree the future flowers may be discerned, the size of Peas, studding the young branchlets. The tree is tender in the neighbourhood of London and in the North, but has withstood 25° of frost at Fota, County Cork, with comparative immunity, and in the pages of THE GARDEN a tree thirty years of age has been mentioned as growing in Scotland, but this must be in an exceptionally favoured and sheltered spot. It may be found doing well in certain gardens in Dorsetshire and Hampshire, as well as in Devon and Cornwall, and it flourishes in the Channel Islands. The accompanying illustration shows a very fine tree which is growing at the mouth of the River Dart, just above the salt water, where the climate is very mild, the rare and tender Buddleia madagascarensis flowering against a wall in the same garden.

South Devon. W. FITZHERBERT.

CORNUS CAPITATA (BENTHAMIA FRAGIFERA) AT THE MOUTH OF THE RIVER DART.

A SUMMER-FLOWERING BROOM.

(CYTISUS NIGRICANS.)

THIS beautiful Broom, which is also frequently known under the name of C. Carlieri, is one of the most valuable additions of its class that we have, and is now making a magnificent display. Of dwarf and compact habit, and only attaining a height of about 3 feet, it is now smothered with its pale, upright yellow flowers, borne on spikes 9 inches or more in length. These last for a considerable time, and cannot be too highly recommended for planting in prominent positions in the shrubberies near walks and drives.

Elstree, Herts. E. BECKETT.

THE KITCHEN GARDEN.

VEGETABLES AT "THE GARDEN" SHOW.

THE vegetables staged at the recent GARDEN Show in the hall of the Royal Horticultural Society once more demonstrated that vegetables could be made presentable and at the same time more profitable in many ways, and the newly formed National Vegetable Society should be encouraged by the splendid exhibits staged on this occasion. The competition was enormous, and there was a remarkable absence of poor or badly grown exhibits in these classes; indeed, had it been solely a vegetable exhibition it would have been worth going a long way to see. The annexe of the large hall, the lecture chamber and one of the committee rooms were filled with vegetable exhibits, practically all of the best possible quality. Mr. E. Beckett and myself, in judging a portion of these exhibits, were surprised at the extra good quality in some of the classes, and judging was by no means an easy matter, it being necessary to return to some of the groups several times.

As is now well known, the gold medal offered for the best exhibit of any kind in the show was unanimously given to the splendid exhibit of twelve distinct vegetables, beautifully set up, and most of the dishes were superb. Here was the best root of Cheltenham Green-top Beet I ever saw, a Beet I introduced many years ago and for which I received a certificate at the Chiswick Vegetable Conference. If any fault could be found with this gold medal exhibit, there was, perhaps, too many Potatoes; at least, such was my idea. Half the quantity given more room would have been more effective, but this is a minor detail. The other collections, notably the second-prize one, were very good indeed.

A great feature was the splendid quality of the Peas staged, some hundreds of dishes in all. I noticed some new seedlings staged which were remarkable for their full, well-packed pods. James Grieve was very fine. Potatoes likewise were perfect as regards shape and free from spot, and this was general in all the classes, Duke of York, Satisfaction, Abundance and Duchess of Cornwall being shown in quantities. Other notable vegetables were Onions, Beet, Carrots and Tomatoes; these were all of exceptionally good quality. G. WYTHES.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN. — Alpines, Saxifrages and similar plants may now be propagated by cuttings. The wood of these plants, many of which are of a sappy, succulent nature, is now getting firm and suitable for propagation. In all cases a sharp, sandy soil is the most suitable for rooting cuttings in, but in the case of alpines and Saxifrages it is very desirable to use such a compost. Stagnant moisture surrounding the base or the buried portion of the stem is almost sure to be fatal to the cutting. Where slips can be obtained with a few roots adhering to them they must be put in, as very useful plants would result. Insert the cuttings in small pots, and place them in a cool frame so as to protect them from heavy rains. Trees and shrubs planted last spring must be examined carefully, and if at all dry at the roots water should be given in large quantities; but instead of applying all the water in one day, or even in two days, saturate the soil first over a space that quite covers the roots, not merely just round the stem, and then follow with three or four applications spread out over a whole week. I daresay some readers will have noticed the premature falling off of leaves on such plants; dryness at the roots is the cause.

Vegetable Garden. — Seedlings of spring Cabbages must be transplanted in nursery beds prior to their being put out in their permanent quarters. It is a great advantage to do this transplanting, as the young plants are thereby made strong and sturdy, their fibrous roots are increased in numbers rapidly, and such specimens have short stems and withstand the winter weather much better than others which are, perhaps, larger but less hardy. In the spring the transplanted specimens are the first to form hearts and turn in ready for use. Weeds must be pulled up and taken away from the garden; if they can be burned in a smothered fire, so much the better, as all seeds must be destroyed and prevented from germinating. Asparagus plants are now maturing a little, and the soil among them must be kept free from weeds; it is useless to try and kill the large weeds by hoeing them and then leaving them to lie on the surface, as, aided by the shade cast by the Asparagus plants, they would commence to grow again—at least sufficient to enable the seeds on many of them to ripen and shell out. Seeds of Beans and Peas intended to be harvested must be left in their respective pods, as they keep much better than would be the case if they were shelled out now. The pods must be harvested while quite dry.

1.—A SHOOT OF AUCUBA JAPONICA SUITABLE FOR MAKING INTO A CUTTING.

Fruit Garden.—The gathering and storing of early Apples and Pears is a work that ought to be done with great care. As a rule, cultivators are in too great a hurry to get the fruit off the trees, with the result that much of it is bruised and will not keep sound for many days. Carefully gather the fruits and lay them in shallow boxes or baskets with linings of straw or hay. Then put them in single layers on bare shelves in cool rooms and admit plenty of air. Young Strawberry plants may still be planted, but those planted earlier will make the best plantations. A mulch of half-rotted littery manure must be put on at once, both in the case of recently planted Strawberries and those put out now. Any secondary runners showing on the young plants must be removed forthwith. Plants growing in pots for forcing should be fully exposed to the sunshine; they cannot have too much of it now. Water must be given to prevent the soil getting at all dry. Place the pots on boards on a bed of ashes and so keep out earthworms. Get the crowns well ripened.

Greenhouse and Frames. — Cyclamen plants now growing in cool frames must be well ventilated, and on calm nights, when the weather is fine, take off the glass lights and fully expose the plants. Replace the lights early the following morning. Syringe the pots and under the foliage with clear soot-water when the weather is fine. This kind of moisture will be beneficial to the plants. All greenhouse plants must be well ventilated at this season, so as to harden them for withstanding the more severe weather. Watering should be done in the forenoon, so that all moisture will be dried up before night comes. B.

PROPAGATING THE AUCUBA AND EUONYMUS.

THE two subjects under notice are evergreen shrubs that have played an important part in beautifying the surroundings of our homes for many years; but there are comparatively few people who really understand how these subjects may be increased. I will first deal with the Aucuba. As an evergreen shrub for growing in town and suburban gardens the Aucuba has few equals, as it withstands the influences of unpleasant and injurious atmospheric conditions in a manner that few other shrubs are capable of doing. It has long been regarded as one of the most useful shrubs for almost any position in the garden, and its cultivation is of the simplest character. I am aware that it is frequently planted in cold and unpleasant aspects, and in soil that would hardly suffice to keep other subjects alive, and even here it does well; yet when accorded more than ordinary care this shrub responds in most liberal fashion. Besides having beautiful foliage, mottled or reticulated with green, creamy and golden yellow, female plants produce bright scarlet berries. In order that the development of these may be ensured, it is well to plant in close association the female and male specimens, about six of the former to one of the latter.

The shrubs are best planted in the autumn or early spring, and as they increase in size very rapidly, ample space should be allowed for the development of each plant. It is a good plan as they develop to shorten the straggling growths so as to maintain plants of even contour, and this is best done in the springtime or during April.

The Aucuba is increased by seeds, which may be sown in sandy soil in boxes or pots, and these placed in a cold frame; by the insertion of cuttings, also in sandy soil, in the cold frame in late August, September and October; and by the layering of shoots in summer. In the present instance I propose to deal with the cuttings. These can be made from shoots of the previous summer's growth, and should be from 6 inches to 8 inches in length; and to enable the reader to understand the character of the shoots that are utilised for this purpose, I have endeavoured in Fig. 1 to represent an ideal shoot for this purpose. It will be observed that the shoot has what is termed a heel to it, just as it is broken out from the old plant. When taken in this manner it to some extent ensures the better rooting prospects of the cutting. Before the latter can be inserted, however, it is necessary that the lower leaves should be trimmed off as represented in Fig. 2, in which instance the cutting is prepared in readiness for insertion. A comparison between the two figures shows very clearly how this preparatory work should be done. It is important that the leaves should be

2.—THE SAME SHOOT PREPARED READY FOR PLANTING. NOTE THAT THE LOWER LEAVES ARE REMOVED.

severed with a sharp knife close to the stem of the cutting, also that the operation be finished off neatly, as represented in the latter figure.

The cuttings are then inserted in sandy soil in the cold frame, where soil to a depth of 6 inches or 8 inches has been previously prepared. Cuttings should be inserted in rows about 6 inches to 8 inches apart and 4 inches to 6 inches apart in the rows. When dibbling holes it is important that the base of the cuttings should rest on the soil in the bottom of the hole; and if the prepared compost be of a sandy nature, the rooting prospects are thereby made brighter. Take particular pains when inserting each cutting to press the soil at its base. After all, it is a very simple process, and so long as the soil be moistened throughout in the first instance and the cuttings kept fairly close and shaded from bright sunshine during the rooting process, there is no reason whatever why a large proportion of the cuttings should not root satisfactorily.

3.—SHOOTS OF EUONYMUS FROM WHICH CUTTINGS CAN BE MADE.

The second subject I wish to call attention to is the Euonymus, commonly known as the Spindle Tree. The Euonymus is a hardy deciduous shrub with ornamental foliage and showy fruits in the autumn. The deciduous species are native plants of North America and Britain. The British species is known as E. europæus and grows wild in the hedgerows in many parts of the country. It is a plant that not infrequently attains a height of 6 feet to 8 feet or more. There is an evergreen species known as E. japonicus, which is a well-known Japanese shrub, commonly met with in town and seaside gardens. There are several varieties of this species, each of which has a beauty peculiarly its own, and any of which are worthy of culture where a representative collection of these plants is desired. The evergreen kinds are specially suitable for shrubbery culture, the more choice and variegated forms being adapted for the better shrubberies and for conspicuous situations in the garden. These plants appear to revel in seaside and town gardens, and, like the Aucuba, should be planted either in the early autumn or in the late spring or early summer.

These plants are also increased by cuttings, which are not difficult to manage. The cuttings should be from 4 inches to 6 inches in length, and may be propagated during late August, September and October. They will root quite readily in sandy soil prepared as advised for the Aucuba; and to enable readers to understand how to proceed with their propagation, an example of an ordinary shoot detached from the old plant is given in Fig. 3, which, it will be observed, is a portion of the previous summer's growth.

Fig. 4 shows the method of preparing the cutting, from which it will be observed that the lower leaves are removed, leaving only a few at its apex. These cuttings should be inserted in rows 4 inches apart, a distance of from 3 inches to 4 inches being allowed between the cuttings in the rows. D. B. C.

A CHAT ABOUT CHRYSANTHEMUMS.

THE beginner will now be anxiously watching his plants and wondering how they will look later on when the flowers open fully. The cultivator who grows plants for the decoration of the greenhouse or conservatory, and for cut blooms for furnishing vases in the dwelling-house, will do well to disbud some of the plants and to allow others to develop all the buds they bear. In this way he will obtain blossoms suitable for all purposes.

A nice spray of blossoms is often much more serviceable for placing in a vase than is a very large bloom Late crown or early terminal buds develop into the best flowers, and they always look well on specimen plants. Such buds are obtained during the latter part of August and early in September. Very early crown buds generally open out into coarse flowers greatly lacking in colour. Very late terminal buds lack size, having few petals, though the colour of the latter is very rich. When the colour of the flower-petals can be seen, place the plants under glass and give plenty of air. Nothing will be gained by leaving the plants outside exposed to rains and night dews, as the petals would damp off wholesale directly the plants were put under cover.

Then there is the question of feeding. I was once feeding my plants (growing in pots) early in the summer, when a friend remarked, "What! feeding the plants before the buds appear?" "Yes," I replied, "I feed them at any time when I think they require extra nourishment, as I believe in building up strong plants before the buds form." Where extra large flowers are required, all the necessary feeding cannot be done after the buds form, though much benefit is derived from it. All liquid manures, including soot-water, must be given in a clear state and well diluted. Thick liquid clogs up the pores of the soil and causes sourness. Air passages should be kept open.

HOW TO COLOUR GRAPES.

THERE are three critical stages in the growing of Grapes during the year. The first occurs when the Vines are in flower, the second at the stoning period and the third when the berries commence to ripen. The bunches are now colouring, and it must be our endeavour to try and get a rich amber in the so-called white varieties and a dense black in the black varieties. A light shading of the Vine leaves is necessary in the case of the former, and a rather dense shade caused by the main leaves and a few lateral shoots, allowed to extend a little at this season, in the case of the latter. We must also admit plenty of fresh air and maintain a rather dry, buoyant atmosphere. The ventilators must be open more or less always, both day and night, less at night, more in the daytime. On a calm night leave the ventilators open 2 inches wide, in rougher weather 1 inch will be sufficient. Both top and front ventilators are here referred to.

Early in the morning increase the amount of ventilation, and on a warm, bright day have the ventilators wide open by eight o'clock in the morning. I like to see the bunches sway gently in the warm current of air which passes through the house, as when such conditions obtain the berries mostly finish well. Watering the border and feeding must not be neglected. Very strong stimulants must not be given, as they would induce size of berry at the expense of good colour-finish. When the berries are about half-coloured, give the last application of manure-water; but give clear water afterwards if the border soil is dry, and continue to do so when it is required. From eight o'clock in the evening to the same time in the morning the hot-water pipes should be warmed to prevent an undue deposit of moisture on the berries. SHAMROCK.

4.—THE SAME SHOOTS PREPARED READY FOR PLANTING.

THE TOWN GARDEN.

BOX EDGINGS.—Although Box edgings are very favourable for harbouring slugs and many kinds of insect pests that are injurious to plants, especially young ones, there are many persons who like to see them in their gardens as edgings to borders. The present is a good time for the cutting of such edgings. Where there is loose gravel on the paths some of it should be neatly drawn away from the Box edging before the latter is trimmed, then the trimmings can be readly gathered up and the gravel replaced. In cases where the gravel is firm there will not be any need to disturb its even surface, as the trimmings can be brushed up when the work of cutting is finished. Great care must be taken to cut the sides and top of the edging quite level.

GARDEN HEDGES.—Privet, Holly and Laurel are the principal kinds of plants used for garden hedges in town and suburban districts. If properly trimmed they all look well; the Holly especially looks very substantial and the Privet neat. Shears may be used for cutting the latter and also the Holly, though if time can be devoted to the work a much better effect is obtained where pruning scissors are used, and the largest leaves are thus preserved whole. Of course, all Laurels must be cut with the knife or pruning scissors and not with shears. The present cutting of the hedges must be regarded as a principal one. It will be necessary to again trim them in September, when straggling shoots only need removal.

SHRUBS AND TREES.—In some parts, even at the present time, leaves are falling from trees and shrubs, especially those that are growing on banks or in a naturally dry soil. This shows that the soil is rather dry around the roots, notwithstanding the rains of July; and this being the case, it behoves cultivators to be careful in their attention to newly-planted bushes and trees. The evergreen specimens planted last spring were probably watered at the time, but not since in some instances. Where such is the case, no time must be lost in getting the soil saturated around the roots. It is not wise to wait until the autumn and winter rains come. Timely watering may mean saving the specimens, neglecting to do so may mean losing them. The right way to water thoroughly is to form a hollow space around the stem of the bush or tree, then water may be freely poured into the cup, and as it cannot run away on the surface it is bound to soak in and so moisten the soil sufficiently for the remainder of the season.

WINDOW-BOXES, TUBS AND VASES.—In order that the plants may look fresh and clean, all fading flowers must be picked off regularly several times each week. Where this cannot be done owing to lack of time on the part of the cultivator, one careful picking should at least take place. The quantity of soil in the receptacles is, of course, limited on account of lack of space, and though sufficient for the needs of the plants during their early stages of growth, it is not enough to support them until the end of the season. Feeding, then, must take place. Before any artificials or liquid manures are applied a good soaking of clear water should be given. Liquid manure, made from soaking farmyard or stable manure in tubs of water, must be given in a weak state, about the colour of pale brandy.

TREATMENT OF CLIMBING PLANTS.—Here, again, work is waiting to be done. The wet, cool summer has been favourable to the rapid growth of all kinds of hardy climbing plants. Unless the straggling shoots are neatly tied up they will become still more difficult to deal with in a very short time. Stiff, formal training must be avoided; some very weakly shoots should be cut out entirely, and others on pergolas, posts, arches and arbours so disposed that they will appear to the best advantage and as natural as possible. AVON.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

BEDDING PLANTS.—There will before this be an abundance of Pelargonium and other cuttings, and a fresh stock to meet requirements should be rooted as early after this date as possible. In some gardens the cuttings are inserted on a sunny border to be transferred to boxes at a later date, but the most common way is to insert the cuttings at once in shallow boxes or small pots, using a rather light, sandy compost pressed firm and surfaced with sand. The boxes should be well drained and some rough leaves or moss placed over the crocks. Be careful to plant the cuttings firmly and not too deep, and avoid bruising the soft wood. Supply plenty of moisture in dry weather and stand the boxes in an open position. Verbenas, Heliotropes, Fuchsias and many other plants are best rooted in cold frames or under hand-lights, kept close, and shaded in bright weather, till ample roots are formed, when abundance of air should be admitted.

Herbaceous Borders.—At the present time quantities of plants may have to be lifted, reduced and freshly planted, for if left undisturbed two or three years they deteriorate to such an extent as to become almost useless, especially if the soil is of a light and hungry character. Where borders have got into a bad state it is by far the best to lift the whole of the plants at a later date and trench deeply the border, mixing with the soil as the work proceeds plenty of manure and other suitable soil, doing the whole of the work thoroughly. The present is a good time to prepare a plan, as this will be very helpful at planting-time.

HARDY FRUITS.

Pears.—As the earliest varieties approach ripeness the trees should be gone over at intervals, and a few of the most forward gathered and placed in the fruit-room to finish. By so doing the season is greatly lengthened and the flavour of the fruits improved. Some of the small varieties are very sweet and refreshing when gathered ripe from the trees. Feed liberally the large and late varieties, and more especially if the soil is light and porous. A good mulching over the roots with manure will be of great assistance to both fruit and trees.

Strawberries.—Plant out those which have been layered in small pots for fruiting next year. Let the ground be good, plant firmly and water immediately afterwards to settle the soil about the roots. For an early supply of fruit select a warm border and let the plants stand 15 inches to 18 inches apart; but for later use 2 feet apart will be more suitable.

VEGETABLE GARDEN.

Parsley.—A good bed for winter and spring use must not be overlooked. If young plants are transplanted on a snug border where they can, if necessary, be protected with a few lights or some other arrangement in severe weather, so much the better. We generally make a small sowing of seed in July and protect later. Sow plenty of Turnip seed for a supply of roots in spring. Red Globe and Chirk Castle Stone are good, useful varieties. Plant out more Leeks and sow Onions of the Rocca type for next summer. The land for this crop needs but little preparing at this season. It should be good and rather firm. Attend well to the planting-out of Endive, Lettuce and other salads, so that the plants attain good size before the cold nights set in.

H. MARKHAM.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

INDOOR FRUIT DEPARTMENT.

VINERIES from whence the crop has been cleared should have all surplus shoots cut away, preserving in the process most of the principal leaves, especially those nearest the rods. This done, a thorough washing by means of hose or garden engine to every part of the structures will clear off insect and dirt deposits from the foliage and dislodge colonies of spiders ensconced in cosy corners.

Midseason Houses containing ripening fruit can be freely aired when outside atmospheric conditions are favourable, but at all times avoid a strong draught of air through the structures, as this is inimical to good finish of thin-skinned Grapes, more especially the white varieties, which show a blemish more quickly than those dark in colour.

Late Houses.—The stoning process being now completed, and the subsequent risk of scalding through heat and moisture greatly reduced, the most may with advantage be made of sun-heat by closing early and maintaining a growing atmosphere for a few hours, but admit a little air later as a safeguard through the night. To prevent condensation of moisture upon the berries and its consequent ill-effects, slight warmth in the pipes, especially in the mornings, is a safe course. In breezy weather this is not important; but if the reverse prevails, and the sun breaks through fog or mist, causing the outside temperature to rise more quickly than that within the house, the condensation mentioned is considerable, and much mischief may accrue before a remedy can be effected.

HARDY FRUIT GARDEN.

Wall Trees.—Where not already completed, summer pruning should be pushed on, and all shoots required for the extension of the trees be secured to the supports so as to obtain the maximum of sun-heat. Unless very rampant, it is inadvisable to shorten these at present, the doing of which might cause the basal buds to start.

Peaches and Nectarines may also have well-placed shoots laid in, while the fruits may have the fullest possible exposure by drawing aside or removing the leaves about them. Any fruits close to nails or wires that may cause injury may be relieved by having the ligatures severed, and a piece of lath placed behind a branch will often prove of much assistance in this respect.

THE FLOWER GARDEN.

Early flowering Chrysanthemums will need slight support by way of a central stake to which the shoots may be looped in preference to close tying. If dryness ensues, water freely, and give manurial stimulant once a week until the flowers open in quantity.

Dahlias are better for having much of the smaller growth removed to prevent overcrowding. This applies more particularly to show and fancy varieties. The Cactus sorts if too much divested of foliage are apt to produce coarse flowers. Earwigs are often troublesome to the buds of many flowers, especially the species named. Small pots half-filled with hay, or Bean-stems cut into lengths and placed about the plants, form hiding-places for these, by which means they are easily caught.

Gladioli require efficient support, and the ties so made that these rise freely with the flower-stems. If for exhibition, the first opening flowers must be shaded and preserved from wet to obtain a long spike of blooms of equal freshness.

Pansies and Violas should be examined every week and have all bad blooms removed. The same applies to most other kinds of bedding subjects, as nothing is gained by allowing seed-pods to form, for these rapidly exhaust the flowering capacities of the plants. JAMES DAY.

(Gardener to Sir Malcolm M'Eacharn.)
Galloway House, Garlieston, Wigtownshire.

AMONG THE ROSES.

FROM the end of June until early in August the Rose season has been favourable. We had a bad look-out at the end of March, when the cold spell nipped the rising sap just as the forwardest buds were on the point of breaking. Much damage is done in this way before the buds actually burst, and it has a particularly bad effect upon Rose-buds inserted the previous season, affecting them before growth has thoroughly welded them together. Standard Briars and dwarf stocks planted for budding also suffered considerably from frost and drying winds. Many of the standards were unable to recover, and we have experienced two rather bad seasons for these early in the year. With the immense selection of varieties it is almost certain that many will stand out good, no matter what the season, and some that may be always depended on are General Jacqueminot, Fisher Holmes, La France, Augustine Guinoisseau, Captain Hayward, Frau Karl Druschki, Mrs. John Laing, Duke of Edinburgh, Caroline Testout, Dean Hole, G. Nabonnand, Lady Battersea, Prince de Bulgarie, Grüss an Teplitz, Lady Ashtown, Richmond, Ecarlate, Mme. Antoine Mari, Le Progrès, Mme. Ravary, Lady Roberts, Mrs. Theodore Roosevelt, Ulrich Brunner and Viscountess Folkestone. There is a capital range of colour in this twenty-four, and small growers would find them very useful.

Diseases.—Rose maggot has been a little troublesome, but we are singularly free from green fly and thrip. Mildew and red rust are, as usual, showing as soon as we get the extreme changes of autumn temperature. There is every prospect of a good autumn show among the invaluable Teas and Hybrid Teas. These are increasing in beauty and variation, in spite of such seemingly unsurpassable quality as we already possessed. I think the mid and late summer crops of these are often far beyond the first flowers. We get more of them, and the flowers generally last longer, owing to the cooler nights and mornings. Besides this, the climbers and pillar Roses are over, except for an occasional bloom or two. Particulars of a few that promise to be very good will be given next week.

Sussex. A. P.

THE EDITOR'S TABLE.

THE TREE POPPY FROM DEVON.

Mrs. Macalister, Hamslade, Devon, sends us flowers of the beautiful Tree Poppy (Romneya Coulteri), which, with their crinkled pure white petals and yellow stamens, are very pretty. Mrs. Macalister writes: "Enclosed are a few blooms of Romneya Coulteri for the Editor's table. The plant from which they were cut is about 6 feet through and has over twenty strong shoots from 4 feet to 6 feet 6 inches in height and covered with buds. It blooms first like a Chrysanthemum, a grand truss at the top of each shoot, and then, later, a bud at the axil of each leaf."

GLADIOLI FROM LANGPORT.

Messrs. Kelway and Sons, Langport, Somerset, send us flowers of their superb Gladioli, of which, of course, they have for many years made a speciality. Among others the following were particularly good: Primrose, beautiful primrose self; Captain Carter, soft shell-pink, carmine on lower petal; Cornishman, deep salmon pink, yellow and carmine markings on lip; and Hannibal, soft salmon pink with rich crimson lip. The value of these flowers for flowering in early autumn should not be overlooked, and in addition to their value for garden decoration they are excellent for cutting, as the buds open freely in water.

PHLOX MRS. E. H. JENKINS.

Mr. E. H. Jenkins, Queen's Road Nursery, Hampton Hill, sends us trusses of the beautiful white herbaceous Phlox Mrs. E. H. Jenkins, which are at this season of the year most acceptable and which certainly would not fail to make a grand display in the border or in large beds. The flowers are a pure intense white and are borne on large clusters of stout stems, the foliage being a most attractive shade of green. Certainly this is one of the best white Phloxes that we know, and we congratulate Mr. Jenkins on his success in the culture of this plant.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Exhibiting herbaceous plants (*J. Brown*).—In the circumstances the Tree Lupine is no more admissible in a set of herbaceous plants than is the Broom or the shrubby Spiræa, and each one performs precisely the same functions in much the same way. The question of shrubbiness or woodiness in these plants is simply one of degree, but in each case the axillary buds are preserved through the winter and from year to year, and the plant produces flowers therefrom; hence it is not herbaceous. The term "herbaceous" is held to imply all those plants whose flowering stems are annual and whose rootstock is perennial. The exhibit, therefore, which included the Tree Lupine was as much in error as the others, and just as open for diqualification. The only reason why this should not be done at all times is when each competitor is guilty of the same error. At the same time, it should be made quite clear that it is wrong. We hold, therefore, that the judges were in error in permitting the plant to stand. In future your schedule might give a footnote to the effect that "the inclusion of shrubby or subshrubby plants will disqualify."

Making a herbaceous border (*E. Lay*).—The best time is early September, and the best way would be to form groups of plants and not plant single pieces. For example, instead of planting a solitary piece of Aster Amellus, plant three or five in such a manner as to cover at planting-time a ground area of 2 feet, the developed examples at flowering-time reaching to fully twice that size, and in this way create a good effect. The more suitable plants would be Michaelmas Daisies, Phloxes, Delphiniums, Hollyhocks, Helianthus multiflorus and other subjects in the background; Trollius, dwarfer Phloxes, Columbines, Lilies, Iris pallida, I. ochroleuca and I. aurea in the next line, with Day Lilies, Gaillardias, Irises of the Flag section, Aster Amellus, single and double Pyrethrums, Lilium umbellatum, Incarvillea Delavayii and Sedum spectabile; and Hepaticas, Megaseas, dwarf Campanulas, Pinks and other flowers in the front row. The better way would be to give your order to some hardy plant dealer, tell him the class of soil you have, and allow him to make the best selection for the purpose.

Hints on Lilies (*Fife*).—From what we gather from your letter, we conclude that the soil is too light for the Crown Imperials and other Lilies, all of which require moderately holding loam and fairly deep planting. The Crown Imperials should be at least 6 inches deep. As the bulbs have not developed full growth this season, there may also be something amiss with the roots, and you cannot do better than dig them up at once for examination. If you can possibly do so, you should add clayey loam to the soil and manure and replant them at once as suggested. Lilies that have become weak take some time to recover, and possibly a better way would be to obtain fresh supplies. The white-leaved seedling Delphiniums were valueless, and their early decay is due to the absence of chlorophyll—green-colouring matter—in the leaves, which to the plant is its life's blood.

Sweet Peas diseased (*M. Sussex*).—The Peas are attacked at the base by the fungus Thielavia basicola. This fungus is said to be encouraged by the presence of lime. It would be well to choose a fresh spot for the Peas next year and to manure with superphosphate.

Proposed rockery (*W. G. Taylor*).—You have omitted to give us the least idea of the size of the plot, and in the circumstances it is well-nigh impossible to advise you. Perhaps you would furnish us with these particulars and say how far removed is the proposed site from the 30-feet-high stables to which you refer. If you will do this, we will endeavour to give you the help you require. There is no book on the subject at present that we know of likely to help you, and possibly a glance at the rock garden at Kew would prove more helpful. The best class of rock is limestone or sandstone.

THE GREENHOUSE.

Adding to a greenhouse (*J. G. M.*).—In our opinion your most satisfactory plan would be to carry a main from the stokehole along the ends of the houses and connect each house separately therewith. This would enable you to regulate the heat in any house to the extent required, which would not be the case if there was a continuous service through the three houses. As so many different tools and appliances are wanted, we can scarcely advise you to undertake the work yourself; but would suggest that the better way will be to obtain estimates from some of the reliable hot-water engineers, such as those which advertise in THE GARDEN.

Lemon Verbena going wrong (*G. Dark*).—The shoot of the Lemon Verbena appears to be badly attacked by red spider and thrips. It is exceedingly weak and probably needs repotting. If this is done, as soon as the roots take possession of the new soil the plant will be better stood out of doors than under glass. It must, of course, be watered when necessary.

Plants for conservatory (*J. E. Turner*).—There is no lack of subjects to keep your conservatory gay during the summer months, as so many greenhouse plants flower at that season. You might grow a collection of Fuchsias, Cannas, tuberous-rooted Begonias or Pelargoniums, all of which will bloom for months together. Other continuous-flowering subjects are Lantanas, Lilies of different sorts, Heliotrope and fibrous-rooted Begonias. All of these can be obtained at a comparatively cheap rate at this season of the year.

Agapanthus flowers going wrong (*Wm. B. B.*).—The rupture in the flower-stem of your Agapanthus is undoubtedly caused by a severe check of some kind, for instance, the removal of the plants from a shaded position into full sun or by exposure to cold winds. An excess of stimulants, too, might have the same effect. At the same time, we may say that a parallel case to yours has never before come under our notice, for though we have met with ruptured flower-stems from one or other of the causes suggested above, yet we never before saw an attempt to flower just below the point of injury. We do not think that cutting off the undergrowth would have had any effect in preventing the damage.

FRUIT GARDEN.

Young Peach fruit injured (*G. F. S. Dixon*).—The young fruit has all the appearance of having been injured by frost, and possibly aggravated by warm gleams of sunshine falling on the fruit before the frost had gone. This always aggravates the injury due to frost on tender plants and trees. The injury is only to the outer skin. The flesh is not at all diseased, and we hope the fruit (although the skin will always bear the mark) will swell into useful size and be of good flavour.

Grapes not showing fruit (*William Hardy*).—You do not say whether your Vines, which have no fruit on this year, had a good crop on last year or not? On those which are fruiting you have far too many bunches on a rod of 9 feet. Twelve would be quite enough instead of thirty. Of course, it depends on the size of the bunches. If the bunches are about 1lb. each, one rod may carry twelve. If they are less than 1lb., then it may carry fifteen. Of course, if more than 1lb. (we mean when they are ripe), then the rod must carry less bunches. You should at once reduce the bunches on your rods to the number given above. As there are five rods to a Vine, one Vine will give you many bunches, even after they have thus been reduced. We believe that overcropping in previous years is the cause of some of your Vines being barren this year. You say that the foliage and Grapes are in good condition, and this proves that the roots are all right.

Strawberry plants for pasture land (*Amateur*).—If you have already burnt your turf, you will be doing quite right to dig it into the soil; but if you have not started digging, it would pay you much better to trench the land, say, 18 inches or 2 feet deep, and bury the turf at the bottom of the trench. This would enrich and improve the soil for many years after. If you have not this depth of good soil, it would be better not to trench it, as it does not pay to bring poor soil to the surface and put the good at the bottom. Deep ordinary digging would be better. The sooner you can get your land cultivated and got ready the better. Secure the earliest and best runners you can lay your hand on and see that they are well rooted. These should be planted at once if you can get them. By planting thus early the young plants have a chance of making a good growth and becoming established in the soil before winter sets in. These plants will give you a good crop next year, a better one the second year and a good one the third year. As a rule, after that it is better that they should make room for some other crop and the Strawberry grown in fresh soil. The rows should be 15 inches apart, and the plants in the row should also be 15 inches apart. Instead of planting one plant by itself, it will pay you much better to plant three close together and count them as one plant, thus: *** *** ***. Your crop in the first year will be trebled and be also heavier afterwards. The best variety for all purposes is, no doubt, Royal Sovereign. It is one of the earliest, surest and heaviest croppers of all. It is also handsome and sells well. The only thing against it is that it is rather soft, and if it has to be sent a long distance by train it is subject to damage in consequence of too much handling. For this reason many market growers prefer Sir J. Paxton. It is of grand colour and the flesh very firm; therefore, for this reason travels better. We should advise you to plant, say, a quarter of your land with a later sort, and there is no better variety to plant for this purpose than Givon's Late Prolific.

Pruning young Currant bushes (*G. W.*).—You must not shorten the leading shoots you mention until winter, and then only one-third their length should be cut off. The object of cutting these shoots back is to compel side shoots to break out next spring right down to the base of these leading shoots. These side shoots should be stopped at the end of July, in order to let in more light and air among the branches of the bushes and also to help the better development of fruit-buds at the base of these side shoots before autumn. The side shoots should be pruned back in summer to within five leaves of their base only, as you have already done, and again in winter to within two leaves or buds of their base.

Grapes dropping off the Vines (*W. H.*).—Your Vines have been injured by scalding, a term used to describe the injured berries, as they appear as if they had been scalded with hot water. The injury always happens when the berries are as large as the sample sent, and some varieties of Grapes are more subject to injury in this way than others, notably, Lady Downe's Seedling and Muscat of Alexandria. The injury is caused by the lack of sufficient ventilation early in the morning when the Vine foliage and berries are saturated with moisture. Ventilate

freely in warm weather, and leave the ventilators slightly open all night (top and bottom). Apply slight fire-heat on cold nights to keep the air buoyant. Bear this in mind next year before your Grapes arrive at this stage, and we think they will escape injury.

Apple trees blighted (*H. W. P.*).—American blight on Apple trees is a most difficult pest to get rid of. The best way we know of is to spray the trees as soon as the leaves fall, and again early in February before new growth commences, with caustic alkali wash. This kills all insects it comes in contact with. Care must be taken that every particle of the bark is moistened by the wash, or a stock of the pest may be left for breeding the following spring. We have given a recipe for making this wash on many occasions, and do so now again in case you are unable to find it. Dissolve 1lb. of commercial caustic soda in water, and also 1lb. of crude potash in water separately. When both have been dissolved, mix the two together, then add three-quarters of a pound of agricultural treacle. Stir well together and add as much water as will make ten gallons of the mixture. The wash has a burning effect on the hands and clothes; therefore means must be taken to protect them while it is being applied. The trees had better be pruned before the wash is applied, and let all the prunings be carefully picked up and burnt. When the trees are badly affected, it will be found that a few will reappear in spring, however carefully the wash may have been applied. It is then necessary to keep a sharp look-out for their reappearance, when the following mixture should be applied to the affected parts, but not to the trees generally: Dissolve 2lb. of soft soap in one gallon of boiling water, add one gallon of paraffin and churn well together until a creamy mixture is produced. To this concentrated mixture add twenty gallons of water and carefully spray the affected parts, and continue to do so as long as any reappears; by this means we hope you will completely rid yourself of the pest. The mixture should be constantly stirred while it is being applied to the trees, in order to keep the paraffin in solution. You might try spraying or syringing your trees now with this mixture, adding thirty gallons of water to the concentrated emulsion instead of twenty gallons.

MISCELLANEOUS.

Water infested with Duckweed (*H. V. W.*). We are afraid that you have no option but to skim the Duckweed off your water. It is a long job, but the most effective way in the end. The best plan is to stretch a piece of canvas or sacking across the water weighted 2 feet or so down and draw the weed together, and then skim it off. Failing this, make a circle of strong wire 2 feet to 2½ feet across, fasten it to the end of a long handle and cover it with canvas, leaving the canvas somewhat loose; then, from a boat or punt, skim the water. A quantity of waterfowl might keep the water clear, but if you have a garden in the vicinity they would prove a nuisance.

Formation of a lawn from rough meadow land (*M.*).—If your grass appears to be thick in the bottom and of fairly good quality, you will probably be well advised by lifting and relaying it next autumn. If, however, it is poor and thin or of very coarse quality, it would be better to remove it 1 inch or 2 inches deep. Dig the ground, level it, tread it quite firm, and sow good seed about the end of September if the weather is showery; if not, wait for a week or two. Failing early autumn sowing, leave it until early March. If you prefer to relay the old turf, keep it closely mown this summer and well rolled, and dress it with one of the various lawn sands, which can be obtained, with directions for use, from most of the leading nurserymen. This sand will kill out many of the weeds without injuring the grass other than turning it brown, perhaps, for a week or two. About October remove the grass in good-sized turves about 1½ inches or 2 inches thick; dig the ground over, level it and relay the turf. If you have a lawn expert in your neighbourhood, it would be advisable to seek his advice about the grass if you have had no previous experience with lawns.

Various questions (*B. Atkinson*).—(1) One of the best remedies for mildew on Roses is to syringe the plants with sulphide of potassium dissolved in hot soapy water. Half an ounce of potassium should be used to every two gallons of water. In syringing great care must be taken to wet the under-sides of the leaves as well as the upper surface. A preparation known as Lysol, which can be obtained from horticultural sundriesmen, is by many cultivators regarded as a very effectual remedy for mildew on the Rose. (2) Among the best Carnations for growing indoors are, of the Tree or American class, Beacon, orange scarlet; Britannia, full scarlet; Enchantress, delicate pink; Flamingo, bright scarlet; Harlowarden, deep crimson; Lady Bountiful, pure white; Mrs. H. Burnett, salmon pink; Mrs T. W. Lawson, rose pink; Mrs. M. A. Patten, white, striped pink; Mrs. S. J. Brooks pure white; Prosperity, white, mottled pink; White Perfection, pure white; and Winsor, silvery pink. Of the Malmaison section, Baldwin, rose pink; King Oscar, rich crimson; Lady Rose, rose pink; Maggie Hodgson, dark crimson; Mrs. E. Hambro, carmine rose; Mrs. Trelawney, deep salmon; Nautilus, delicate flesh; Nell Gwynne, white; The Churchwarden, crimson scarlet; Princess of Wales, rose pink; and the old blush Malmaison. Of these the Tree or American varieties are struck from cuttings of the young shoots in heat early in the year, and grown on till by autumn they are established in 5-inch pots with buds in process of development. The Malmaison varieties are propagated by layers when they have done blooming and are grown on altogether under glass. A good liquid manure for these Carnations is that made from cow-manure and soot, but it must not be used till quite clear. (3) A selection of border varieties would include Alice Ayres, white, striped carmine; Agnes Sorrel, dark maroon; Aureole, yellowish buff; Braw Lass, rich bright rose; Duchess of Fife, pink; Germania, yellow; George Maquay, white; H. J. Cutbush, scarlet; Lord Roberts, yellow; Lottie Pike, scarlet; Miss A. Campbell, yellow; Mrs. Nicholson, rose pink; Mrs. Reynolds Hole, apricot; Raby Castle, salmon pink; and Uriah Pike, deep crimson. Carnations of this section are usually propagated by layers after they have done flowering, and in the autumn when these layers are well rooted they are planted in the spot where they are to flower next year. In cold, wet soils the layers are usually potted, wintered in a frame and planted out in the spring. In light soils a cooling manure such as cow-manure is the best, but in heavy, damp soils something lighter is preferable. We have given you a brief sketch of the treatment required by the two sections of Carnations, and to deal with the subject more fully would greatly exceed the entire space devoted to "Answers to Correspondents." There are, however, several books dealing with the Carnation from which you would learn much.

Making Tobacco from Nicotiana affinis (*W. Smith*).—It is doubtful whether you will be able to prepare good Tobacco from the leaves of the ordinary Nicotiana affinis, though this plant, or a form of it, is sometimes cultivated for the purpose. The most profitable species are N. Tabacum and N. rustica, and of these many selected varieties are grown. Experiments with various kinds were carried out at the Botanic Gardens, Regent's Park, a few years ago, and you would probably be able to obtain some information on the subject by writing to the Superintendent. About twenty years ago experiments were made on a large scale by Messrs. Carter and Co., and the result of their observations is condensed in a small book edited by Mr. E. J. Beale, published by E. Marlborough and Co., London. The text of this book originally appeared in the official publication of the Bath and West and Southern Counties Agricultural Association. In that book you will be able to obtain all the information you desire, with names and illustrations of all the most suitable sorts. We are unable to state the price, but it is not a dear work. You may possibly be able to obtain it from Messrs. Carter and Co., seedsmen, 237 and 238, High Holborn, London, if you cannot get it through the publisher.

Information about plants (*R. H.*).—Of the plants concerning which you enquire, Embothrium coccineum is too tender for the purpose suggested. It is hardy in the more favoured parts of the West of England, but would not be a success in your district. Fremontia californica can scarcely be recommended for cultivation in a tub, as, among other features, it has a way of dying off suddenly. Leycesteria formosa would do, but it is deciduous. Paulownia imperialis if cut back annually will never flower; indeed, if allowed to grow unchecked it is not likely to bloom when grown in a tub. The different kinds of Philadelphus or Mock Orange will grow and flower well in a tub, but they are leafless during the winter. With regard to our selection, we do not know whether you need evergreen or deciduous subjects; if evergreen, Berberis Darwinii, green-leaved Aucuba, variegated-leaved Holly, Laurustinus, golden-leaved Privet, Box and Aralia Sieboldii. Of deciduous subjects with effective flowers we can recommend Buddleia globosa, yellow, midsummer; Deutzia scabra flore plena, white, June; Diervilla (Weigela) Eva Rathke, crimson, summer; Hydrangea paniculata grandiflora, large heads of creamy flowers, August; Philadelphus Lemoinei erectus, white, June; Styrax japonica, white, June; and Viburnum plicatum (Japanese Snowball Tree), white, end of May. Some coniferous trees do well in tubs, especially Cupressus lawsoniana, Prumnopitys elegans, Retinospora obtusa, R. plumosa and Thuja (Thujopsis) dolabrata.

Name of fruit.—*Cosgrove.*—Currant Fay's Prolific.

Names of plants—*T. E. Woodhouse.*—1, Rose Hiawatha; 2, Spiræa Menziesii; 3, Sedum spurium.——*Mrs. Batt.*—Senecio Cineraria and Campanula Trachelium flore-pleno.——*B. G.*—Berberidopis corallina.——*Kitchen.*—1, Phuopsis stylosa; 2, Clematis recta; 3, Veronica longifolia alba; 4, Lilium croceum; 5, Veronica longifolia variety; 6, Spiræa Filipendula.——*J. H. C.*—1, Rudbeckia laciniata; 2, Helianthus rigidus; 3, Erigeron multiradiatus; 4, E. philadelphicus; 5, Thalictrum angustifolia; 6, Campanula rapunculoides; 7, Anaphalis margaritacea; 8, Clematis recta.——*E. G.*—1, Veronica buxifolia; 2, V. Traversii; 3, Buddleia globosa; 4, Leycesteria formosa; 5, send in flower; 6, Spiræa japonica; 7, S. canescens; 8, Neillia opulifolia; 9, Jasminum humile; 10, Polygala myrtifolia; 11, Spiræa salicifolia; 12, S. Menziesii.——*J. G. B.*—Morina longifolia and Alstrœmeria aurantiaca.——*H. E. West.*—1, Dracæna Victoriæ (yes, this can be "ringed"); 3, Euphorbia jacquiniflora (cuttings can be taken and rooted in heat); 5, Abutilon species. It is impossible to name the other specimens sent from part of leaf only. Why not send leaves and flowers?——*G. F. Ashton.*—Tropæolum species. Impossible to say which from such a scrappy specimen.——*M. C.*—Delphinium grandiflorum.——*W. T.*—Mesembryanthemum coccineum.——*Salop.*—Sidalcea malvæflora; 2, Rose (petals had dropped); 3, cannot name without flowers; 4, Achillea species (please send better specimens); 5, Galium Mollugo; 6, Jasione montana.——*W. N., Northampton.*—1, Phlomis viscosa; 2, Clematis montana; 3, Asphodelus species (specimen too poor); 4, Lysimachia punctata; 5, Veronica longifolia rosea; 6, no specimen; 7, Acanthus spinosus; 8, send in flower; 9, Lythrum Salicaria; 10, Anaphalis margaritacea; 11, Lythrum virgatum.——*Scorer.*—1, Azara microphylla; 3, Hymenanthera crassifolia; 4, Veronica salicifolia; 5, Cotoneaster microphylla; 6, Calluna vulgaris alba; 8, Podophyllum peltatum; 12, Cotoneaster frigida; 14, Gaultheria nummularioides; 15, Sedum reflexum; 16, Veronica cupressoides; 19, Spiræa palmata; 20, Gillenia trifoliata.

SOCIETIES.

THE READING GARDENERS' ASSOCIATION.

GOOD fortune again attended the members of this association when, on the evening of Friday, August 6, by kind invitation of the vice-president, Mr. Leonard Sutton, a visit was paid to his charming gardens at Hillside, Reading. A party numbering within a few of 200, many of whom came from Maidenhead, Henley, Wokingham, Sandhurst, Pangbourne, &c., assembled at 5.45 p.m., at which hour tea, thoughtfully provided by Mr. Sutton, was taken *al fresco* beneath the trees in the orchard, amid perfect surroundings and in ideal weather. A tour of the gardens under the personal leadership of Mr. Sutton was afterwards made, Mr. Townsend, the head-gardener, and his staff taking charge of those who were unable to occupy the front rank. The vice-president is a great lover of annuals, and these beautiful subjects, together with perennials grown as annuals, formed delightful colour-effects in the beds on the lawns, lovely Pentstemons, Antirrhinums, Salpiglossis, &c., being much admired. In the houses were to be seen splendidly grown Gloxinias, Gesneras, Coleus, Schizanthus, Celsia Arcturus, &c. Altogether the party found much to interest them during the hour and a-half spent in the gardens, and as a *finale* they were conducted to the private recreation ground at Cintra, provided by Messrs. Sutton and Sons for their employés, and watched the games of bowls, tennis, &c., until twilight brought a most charming evening to a close. Before separating, the president, Mr. Alderman Parfitt, expressed to Mr. Sutton the thanks of all present for providing such a truly enjoyable evening.

HIGHCLIFFE HORTICULTURAL SHOW.

ON Thursday, the 12th inst., the coming-of-age of this flourishing society was celebrated by the holding of a very fine exhibition in the beautiful grounds of Highcliffe Castle, by kind permission of General Stuart-Wortley. The weather was ideal for such an occasion, and people came in large numbers, thoroughly enjoying, in addition to the numerous exhibits, the privilege of walking through the private gardens attached to the castle. The latter has from time to time been the temporary residence of many persons of high position, including His Majesty King Edward VII., and quite recently His Imperial Majesty the Emperor of Germany, both of whom planted trees in the park to commemorate their visits.

For a collection of Potatoes, round, four distinct varieties, Mr. T. Payne was first with very fine specimens, Mr. G. Barnes being second and Mr. E. Broome third. For a similar collection of kidney Potatoes, Mr. G. Barnes was first, followed by Messrs. T. Payne and E. Broome in the order named. In the classes for single dishes of Potatoes, the above-named exhibitors were the chief prize-winners. Mr. Broome scored in the classes for twelve autumn Onions, twelve spring Onions, six Carrots and six Parsnips. Mr. Payne was successful with both white and red Cabbages, Runner Beans and Vegetable Marrows. For a collection of hardy fruits, Mr. E. Broome won, Messrs. Payne and G. Barnes being second and third respectively. In Division II. Mr. W. Gasting, Mr. R. Shave and Mr. Govier were the principal prize-winners. The spring Onions staged by Mr Shave were the finest we have seen this season so far. They were exceptionally large and firm.

Non-competitive exhibits were a big feature of the show.

Mr. Maurice Prichard of the Christchurch Nurseries, and so well known as a grower and exhibitor of hardy plants, put up a very fine lot of herbaceous cut flowers and Water Lilies. The collection included Phlox, Spiræa Aitchisoni, Stenanthium robustum, Kniphofias and Crinums.

Messrs. D. Stewart and Son, Ferndown Nurseries, Wimborne, Dorset, had a grand collection of Roses, Gladioli and other cut flowers. The Roses included fine blooms of Mme. Melanie Soupert, Lyon, Mrs. Peter Blair and Perle des Jaunes, the latter a lovely golden coppery yellow. All were very fresh and tastefully staged. This firm grows Roses well.

Lady Curzon-Howe had a nice exhibit of flowers, vegetables and fruit; Mr. Coles staged thirty vases of beautiful Sweet Peas, and the hon. secretary, Mr. Steptoe a collection of Grapes, Apples, Tomatoes, Plums and Sweet Peas. Mr. F. Frampton also had a grand exhibit of Grapes, Cucumbers, Tomatoes and a variety of vegetables. Lovely groups of miscellaneous plants were arranged by the head-gardeners on behalf of Mrs. Ricardo, Mrs. Braddyll and Mrs. Wiggins.

THE HOLYPORT HORTICULTURAL SOCIETY.

THE second flower and vegetable show, which took place on August 12 in the beautiful grounds of Hendens Manor, Holyport, by kind permission of Miss Langworthy, passed off with great success. There were 400 entries, besides some fifteen complimentary exhibits contributed by the local residents, among whom may be mentioned Captain the Hon. E. S. Dauson, Cannon Hill; Miss Langworthy, Hendens Manor, Holyport; S. Heilbut, Esq., The Lodge, Holyport; A. Hoffnung, Esq., Rawdon Hall, Holyport; E. Oppenheimer, Esq., Hawthorn Hill, Berks; Mrs. Phillips, Bray Court, Maidenhead; and T. J. Ford, Esq., Kimbers House, Maidenhead, who sent exhibits of vegetables and groups of flower and foliage plants. The judges were Mr. George Allen, gardener to Sir George Pigot, Wargrave, and Mr. W. Hulbert, gardener to M. Litkie, Esq., Pinckney's Green, Maidenhead, and they were loud in their expressions of admiration for the exhibits generally. Notwithstanding the great heat (85° in the shade), the show was well patronised and went off without a hitch.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

STRAWBERRIES IN COLD FRAMES.

THIS style of culture is now well understood among Strawberry-growers round London, and produces the crops of this fruit which are now so largely grown by market growers, and which in most seasons give such splendid results, not only in the high quality and handsome appearance of the fruit, but also in weight of crop and generally in highly remunerative prices. This is an inexpensive way of growing forced Strawberries, and the system has been practised by professional gardeners in England for many years, but as yet is little understood or practised by amateurs or allotment-holders. And yet it is a system well calculated to enhance not only the pleasure to be derived from a garden by its adoption, but it also has the further advantage of bringing to the grower in most seasons a handsome cash return for his labour. As is well known, the price of Strawberries in London during the season is governed by their scarcity or abundance in the market. The supply of this fruit up to about the middle of May is met by hothouse-grown fruit from plants in pots. After this time the fruit grown in pots becomes scarce, and by the end of the month is practically over; the outdoor fruit is not generally ripe, even in the South, until from June 10 to June 15. It is at this time that the usefulness of the fruit given cold frame protection is realised.

Now is the time to plant, because there is ample time for the young plants to root into the soil and establish themselves before winter, and every day's delay after this lessens the chance of complete success. The plants will grow equally as well in a cold pit as in ordinary garden frames. If ordinary frames are used, the ground to be prepared must be of the size of the frame or of the number of frames available, and the position should be due south, or south-east or south-west will do.

The first thing to do will be to trench the soil 2 feet deep. If it is of a good holding nature, no other soil need be added to it; but a layer of well-decayed manure 4 inches thick should be placed at the bottom of the trench and half the quantity mixed with the top spit as the trenching proceeds. Quicklime and bone-dust should also be mixed with the top spit at the rate of one gallon of lime and half a gallon of bone-dust to a light. Should the soil be of a very light nature, half of it should be wheeled away and heavier soil (turf preferably) added, trenching and adding manure as before advised.

The Young Plants.—If these have been previously layered in pots, so much the better—but this is not absolutely necessary—the strongest runners and those which are best rooted should be selected and planted immediately the frames are ready. As the plants under this system of culture are replanted every year, it is necessary to plant thicker than would be the case if they remained in the ground for two or three years, as is usual with this crop; therefore, instead of planting single plants in the row, I advise that three plants be placed fairly close together and considered as one plant, thus, *** ***, leaving a space of 12 inches between the set of three plants in the row and 15 inches between the rows.

Planting.—This is a simple matter, but there is a right and a wrong way of going about the work, as there is in many garden operations. Be careful not to sink the crowns of the plants too low. When planted the crown should be on a level with the surface of the soil. Do not forget to press the soil firmly to the roots of the plants and to give them a good soaking of water when planting has been completed. Should the weather continue dry, the soil must be maintained in a moist condition in order to encourage growth, and water must be withheld only when growth occurs, which will not be, if the weather is open, before the end of October. The plants will require no further attention afterwards until the following spring, except that, if there is excessive rain or extra severe frost during winter, the lights should be placed on the frames during those times, but with air on during the day.

Spring Treatment.—This is very simple. It consists in placing the lights over the plants as soon as the flowers begin to expand—indeed, as soon as they are seen to be on the move—in order not only to gently expedite their growth, but also to protect the blossom from frost. Ample air must be given during the daytime, and at night also in the absence of frost. The condition of the soil must be examined at this time, and if found to be at all on the dry side, a copious watering should be given and then a mulch of strawy manure laid over the ground round the plants, which may remain on until the fruit is gathered to preserve it from contact with the soil. Abundance of air must be given while the plants are in bloom, and as soon as the fruit is set its swelling, if desired, may be facilitated by syringing the plants and closing the frame about 4 p.m. while the sun is shining on it, raising the temperature to about 70° to 75° Fahr. for two or three hours. About this time it is necessary to exercise sound judgment as to timing the fruit, bearing in mind that it is not desirable to have it ripe in bulk before about May 10 or May 15. If it is desired to retard the crop, ventilate freely; on the other hand, to hasten the crop syringe the

plants and close the lights with heat as mentioned above.

While the fruit is swelling, water at the roots must be given freely, using weak manure-water at every other watering. No better manure-water can be used than that formed by dissolving a handful of Peruvian guano in three gallons of water. When ripe the fruit should be picked early in the morning before it is warmed by the sun. OWEN THOMAS.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

*** *The dates given below are those supplied by the respective Secretaries.*

August 31.—Royal Horticultural Society's Exhibition of Flowers and Fruit, Vincent Square, Westminster, 1 p.m. to 6 p.m. Lecture at three o'clock on "The Gardens by the Lake of Como," by Mr. James Hudson, V.M.H.

September 1.—Preston and Fulwood Horticultural Society's Show (three days). Glasgow and West of Scotland Society's Exhibition at Glasgow (two days).

September 2.—National Dahlia Society's Exhibition at the Crystal Palace (two days).

A new Dahlia.—A beautiful new Dahlia, a native of Mexico, should create a small stir in the world of flowers; it is called Coronata, and is in bloom in the interesting nursery of Mr. E. Maynard, Borough Green, Wrotham, Kent. It is, of course, single, and the flower is of a peculiarly beautiful colour—clear salmon red, the petals broad and in the evening close up, forming an almost perfect ball. This is, as far as I am aware, quite a distinct feature in the Dahlia. Apart from the strangely attractive colouring, the closing up of the petals and the length of time the flowers remain in beauty, there is a sweet scent of Bluebells. Coronata certainly appears to have the making of a new and beautiful group, and the hybridist's attention may well be drawn to it. There is no difference in cultivation between this and the ordinary types of single kinds.—V.

National Sweet Pea Society.—The following is the official list of awards made by the floral committee of the above society after two visits to the trials of 350 stocks and varieties at Reading University College Gardens. *First-class Certificate.*—To Clara Curtis (Row No. 186), from Mr. W. J. Unwin, Histon, Cambs. *Award of Merit.*—To Charles Foster (Row No. 7), from Mr. Robert Bolton, Carnforth; to Edrom Beauty (Row No. 350), from Mr. A. Malcolm, Duns, Berwick; to Mrs. W. J. Unwin (Row No. 289), from Mr. W. J. Unwin, Histon; to Dazzler (Row No. 334), from Mr. C. W. Breadmore, Winchester; and to Sunproof Crimson (Row No. 338), from Messrs. Dobbie and Co., Rothesay. *Highly Commended.*—To Mrs. Watson (Row No. 86), from Mr. Robert Bolton, Carnforth. *Commendation as a Market Variety.*—To Mercia (Row No. 136), from Messrs. G. Stark and Son, Great Ryburgh; and to Colleen (Row No. 305), from Mr. William Deal, Brooklands, Kelvedon.—CHARLES H. CURTIS, *Hon. Secretary.*

Perennial Phloxes.—On the long herbaceous border at Hampton Court Palace are two large and very brilliantly flowered clumps of that rich-coloured but ornamental, erratic-growing Phlox Coquelicot. So very striking is this variety thus massed that most of the other Phloxes there look ineffective, and some are not worth a place in such a garden. That we have now a superb collection of beautiful varieties is certainly the case. A visit to any nursery where these Phloxes form a prominent feature shows that fact in a very effective way. While Roses, Pæonies, Irises and Pyrethrums are practically over, Phloxes are at their very best, and the infinite variety of colour and markings found in a good collection makes a garden just now look supremely gay. At Long Ditton, where Messrs. Barr and Sons have such a wonderful selection, their beauty is most manifest, and, seeing how hardy Phloxes are, how easily increased either by propagation or by division, and how readily they accommodate themselves to soil as well as to surroundings, it is a matter for surprise that more of these hardy flowers are not generally found. A good selection I made recently at Long Ditton may be of interest to many readers of THE GARDEN, who may desire to extend their collections or to beautify their borders with such delightful hardy flowers: Stendhall, brilliant orange scarlet, a stronger grower than Coquelicot; Selina, flesh pink; Illustration, very fine reddish carmine; Acquilon, purplish rose; Albert Lasteau, a beautiful large mauve pink; L'Aiglon, soft rosy red; Eclaireur, purplish red, pale centre; Rheingau, fine white, with dark leafage; Snow Queen, pure white with pale leafage; Sprite, white rose; Gruppeu Rontgen, soft pink; D. Mois, rich rosy red; and Lady Molly, deep pink, slightly flushed lavender. The colour descriptions are my own. All the varieties have fine heads and pips, and give very beautiful colouring. So easily are Phloxes increased that one plant purchased now or next spring will make several in a year or two; hence a first outlay is soon amply repaid.—A. D.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

The sale of Raffiatape.—The actions against two of our leading firms of seed merchants compel me to make the following explanation. In the "Inventors' Manual," as in other patent journals, may be seen the following: "Letters patent may be obtained for 'The application of a known substance to a new purpose when some inventive power is evidently necessary to make the application available for the new purpose.'" Raffiatape was never used for tying up plants before I applied my inventive power and patented the stuff for the perfectly new purpose of tying up plants, because it stretches to enable the plants to grow. The patent was fully granted me, but in 1906 it was revoked, causing me much loss through no fault of my own. Due notice of this revocation was given to the trade, yet some firms still marked Raffiatape, pure and simple, as "West's Patent Raffiatape." Prior to this patent being annulled I applied for the registration of the word Raffiatape, and a second patent for the improved mode of coiling tape to prevent it entangling had been secured. This second patent being granted under the new Act is a very valid one, and cannot be set aside like the first patent, which was under the old Act; therefore it comes about that, although it is wrong to mark Raffiatape as "West's Patent," yet it is quite correct to style the improved Raffiatape coils as "West's Patent Coils," as was done before the revocation of the first patent and ever since.—C. E. WEST.

How to keep cut Roses fresh.—I find that cut Roses last twice the usual time if, instead of being put into vases at once, they are thrown into a basin of water for a few hours first, letting them float on the surface. This gives the blooms such a reserve stock of moisture that they retain their freshness in a surprising manner. When they are intended for giving away I leave them in the basin rather longer, and then arrange them in an ornamental basket and take them to their destination, making a point of assuring my friends that they can be left just as they are all the afternoon and evening. This may sound strange, but I have tested the point so often that now I frequently resort to this method for decorating my rooms, though, of course, it takes more flowers and can only be effectively carried out when the morning's gathering has yielded a fairly good supply. Yesterday's Roses, which have been treated in this way, are almost as good as to-day's, having none of the limpness which one expects to see the next morning. For sending Roses by rail and post I find this device most valuable, and also for sprays and button-holes. I have worn a Rose for half a day, only floating it in a basin of water the last thing at night, and the next morning it has been quite fresh again. Surely this is putting the plan to a pretty severe test!—G. LAYARD.

Sweet-smelling flowers.—What a charming feature in any large garden is one section set apart expressly for sweet-smelling plants! There is such a wealth of these, from Violets and Wallflowers to Tobaccos, Clove Carnations, Night-scented Stocks, Cape Pelargoniums, Heliotropes and myriads of things, that it is possible to have not only infinite variety, but exceeding beauty. While of hardy Pinks there has been a great increase of sweet-smelling varieties, there has been, unfortunately, in Carnations not the same progress. Some smell sweetly, but so many, while beautiful to look at, have no perfume. Then so many of the modern Carnations, with their loose-growing habits, are quite unfitted for outdoor work. For that reason in any garden of sweet-smelling flowers the Old Crimson Clove must have a prominent place. I have just seen grown by a railway porter here in Kingston-on-Thames a big breadth of the beautiful soft pink sport of this old Clove, the plants blooming profusely and giving the usual rich perfume. No garden should be without this delightful Clove.—A. D.

Galega Hartlandii.—I am glad to notice that this beautiful plant has been brought before the floral committee of the Royal Horticultural Society quite recently, and this without any recent effort on my part, but through the head of the department at Wisley, to whom I sent a plant some years since. Now that it has obtained the award of merit, the history of its recognition here at Ard Cairn should be accredited to the late F. W. Burbidge, a man with a keen eye for anything good, from a Daffodil to an Orchid. He, when on a visit to Cork, pronounced it as one of the best summer border plants for colour in existence. This praise was well deserved. This summer it has been very fine, and we have had it in flower since the end of April under glass, as it forms a splendid show in the large conservatory in conjunction with the beautiful new Spiræas Peach Blossom and Alexandria.—WILLIAM BAYLOR HARTLAND.

Three yellow-flowering cottage garden Tulips.—Readers who have not seen the following should grow them in quantity for cutting purposes or decoration in the garden. It is difficult to decide between the merits of gesneriana lutea and Mrs. Moon. The writer, from long experience, thinks more of the former, and now that growers have produced them in large quantity the price is really low. For instance, gesneriana lutea at about 1s. per dozen (6s. 6d. per 100) is very moderate for such a glorious flower, and Mrs. Moon at about 3s. 6d. per dozen is not dear. Then Leghorn Bonnet at about 1s. 3d. per dozen (8s. 6d. per 100) as a pale straw-coloured bloom cannot be matched. All have been introduced to commerce from Ireland and are well worth notice.—IRISH FURZE.

Desfontainea spinosa in Scotland.—This is an evergreen shrub resembling the Holly, but more bushy in growth. As it comes from Chili it is, naturally, a little tender, and should be protected from cold spring winds. It is said to thrive and flower outdoors only in the South near the sea, or in a cold house; but here I have it growing and flowering freely in the open in an exposed situation facing west. I

send you a branch covered with its beautiful tubular-shaped yellow and red flowers.—JOHN MCWATT, *Morelands, Duns.*

Burning clay for Roses.—With reference to Mr. Oakley's enquiry on the subject of lightening heavy clay for Roses by burning, the main point to be observed is to ensure slow combustion. The supply of air must be limited, and the best results are obtained by using no coal or cinders, but old bits of wood, hedge clippings, lawn mowings, weeds and other garden rubbish. Having once got the fire well started, add alternate layers of clay and rubbish. If any part should burst into flame, it should be damped down with clay or any damp material. In this way all the products of combustion will be condensed and a black friable soil will be produced. —A READER.

The Hydrangea in tubs.—A noble plant for growing in a tub is, as the illustration suggests, the Hydrangea. Several are standing on the terrace facing Mr. Phillips's residence, Wrotham Park Hill, Wrotham, being all in full bloom, and last year one of the specimens was covered with no less than 600 of the delightful pink-coloured clusters. Many years have elapsed since these were in their infancy, but the reward is great for years of waiting to achieve such results. The owner is shown standing by one of the plants, and this gives an idea of the width and luxuriance of the Hydrangea when grown in this way. No complete disturbance of the roots has taken place for years, but in spring a top-dressing of manure and a little bone-meal are given, and during the summer months an abundance of water, sometimes mixed with soot, as this preserves the natural green colouring of the leaves. During the winter the plants are kept in a Peach house free from frost, or a shed will suffice. They are wintered much in the same way as specimen Fuchsias, Myrtles and similar shrubs that have a certain tenderness of growth.—V.

Annuals in gardens.—I saw recently in a local garden a very striking border of annuals as an edging to the 6-feet grass paths in the kitchen gardens. The background in one long walk was of espalier Apples and Pears and in another of pyramidal fruit trees. At the time of my visit the chief attraction was a long line of the Pot Marigolds (Calendula officinalis), and included the varieties Orange King, Meteor, Sulphur Queen and Prince of Orange. The effect was most striking. The plants were about 2 feet high and nearly the same broad. The seed was sown in February, the plants pricked out in boxes when 2 inches high, duly hardened off and planted out at the end of April. Such a sheet of colour is well worth imitation. The Calendulas were fronted with dwarf Antirrhinums in mixed colours, and the opposite side had glorious lines of the tall Salpiglossis backed by a Holly hedge and Lupinus Cruikshankii. Other borders were of the scarlet Linum grandiflorum, dwarf Jacobæa, Coreopsis Drummondii and C. tinctoria, Swan River Daisy, Phlox Drummondii, Eschscholtzia crocea, Love-lies-bleeding, Candytufts, &c. The plan is to vary the subjects used every year, and the gardener says it is the most attractive spot to the visitors that his place presents. I can fully recommend this style of garden decoration to all who have long borders to fill where cost is a consideration, as these seeds are very cheap.—GEORGE BUNYARD, *Maidstone.*

Where to obtain the Vinegar Plant.—The Vinegar Plant is a fungus often found in old cider casks. Place it on a mixture of sugar, treacle and water, cover with paper, and keep in a warm, dark place. In about six weeks the plant will have covered the mixture, when it can be removed and the mixture boiled and bottled for use.—MISS B., *Dorset.*

IRISH NOTES.

AT Ashbourne, close by Queenstown Junction, is one of the most interesting gardens in the South of Ireland for hardy shrubs, herbaceous plants and alpines. Mr. R. Beamish, the owner, ably assisted by his gardener, Mr. Hume, has in eight or nine years planned a garden on a generous scale, and by skill and foresight an old quarry has now become one of the finest rock gardens in Ireland. Here one sees the best of the alpines grown as they ought to be where space will allow, *i.e.*, in masses several yards across. In early July Campanula Wilsonii, C. garganica, dwarf Erigerons, Dianthus and other plants were just masses of colour. Campanula lanata was just opening its cream-coloured flowers; its habit is very distinct, something similar to a young Fir 2 feet high. Its biennial character is a drawback, but a group of thirty or forty young plants should make a good show there next year.

One side of the rock garden was originally a bare, steep rock 40 feet or so high. Soil was placed in the crevices where possible, and Dianthus and other free-growing subjects were sown in the crevices. The result is that the rocks are studded with flowers and greenery; a small stream flowing from the top of the rocks appears and disappears in a pleasing manner until it is finally lost in a small bog garden at the bottom. In one part, at the base, climbers clothe the huge bare slabs of rock with their drapery. Among the climbers one may well be surprised to see a grand specimen of Mandevilla suaveolens, the numerous flower-heads giving promise of a glorious show. A walk leading upwards commands a view of the whole rockery and takes one to a promising collection of young conifers, where an interesting trial is being made to test the hardiness of some of the newer Mexican Pines.

HYDRANGEA GROWING IN A TUB IN A KENT GARDEN.

Near to the entrance of the garden is a scene almost sub-tropical. Here Cordyline australis and its varieties have been planted along with Yuccas and Kniphofia Northiæ. The latter makes a bold plant for this kind of grouping; many seedling forms were bearing spikes of flowers 6 feet high. Here one sees a thriving specimen of the true and rare Cordyline indivisa; the mature leaves are often 8 inches broad. A bed is formed of Cordyline Banksii erythrorachis, and it well deserves the varietal name, for the midrib is a bright red and it is a superior plant for garden purposes than the type. Japanese Iris flourish by the water-side; flowers of many hues, some measuring 8 inches or 9 inches in diameter, testify how they enjoy the sun and mild South of Ireland climate. Mr. Beamish has started to raise seedlings of the Japanese Iris so as to maintain his stock strong and vigorous.

On the banks of a small stream are many treasures, with shrubs growing towards the top. Here it was with great pleasure that I saw that rather difficult subject, Castilleja miniata, doing really well. Nicholson accounts for the difficulty of culture by the more or less parasitic habit of the plant. Nevertheless, it is a subject which is worth taking some trouble to establish. The plant reaches 2 feet in height and bears racemes of yellow flowers, but the large bracts are the showy part. These are of such a brilliant scarlet that few hardy plants can compare in colour.

Mr. Beamish describes with enthusiasm his perseverance in the culture of Linnæa borealis. It is now a thriving plant 5 feet or 6 feet across, and looks as happy as one could wish. He accounts for his success by planting it above the water-level in peaty soil, but in a place where the roots can reach the moisture of the stream in dry weather. In pockets formed by stones well above the water-level Shortia galacifolia and S. uniflora seemed quite at home.

Close to the water-side that curious Aroid, Lysichitum camtschatcense, from North America was in flower and fruit. The Bulgarian Primula deorum and the Chinese Primula Poissoni showed by their vigour how they enjoyed the water-side. A group of the Japanese Musa Basjoo was very fine, but it is only in such favoured spots as Southern Ireland and Cornwall that it has any pretension of being hardy. On a sloping sunny bank was a mass of that glorious annual, Dimorphotheca aurantiaca, 20 feet or more across, creating a blaze of colour.

The Eremuri in Mr. Beamish's garden were a surprise, and should create a sensation when shown in a year or two. They are hybrids or seedling forms of Eremurus Warei, ranging from 7 feet to 9 feet high, and as yet are unnamed. One has beautiful clear lemon yellow flowers; another has flowers of a bright lively yellow; while a third, which is flowering for the first time, has flowers of an apricot yellow with bright orange-coloured stamens. They form a most choice and telling group among some shrubs, and are a decided advance on the usual yellow forms. The individual flowers are about 1 inch to 1¼ inches in diameter. The Rose pergola was very bright; Yews alternate on arches with the Roses to relieve the bareness in winter. A good climbing Rose with clusters of double white flowers formed a mass several yards through, and was covered with flowers. Mr. T. Smith of Newry is sending this Rose out under the name of Ashbourne White.

The collection of shrubs is a good one, including many novelties and plants which one seldom sees in the open, as for instance, Hovenia dulcis, Mallotus japonicus, Meliosma myriantha, Cercocarpus parvifolius (betulæfolius), a rosaceous shrub from California, 5 feet high, in appearance rather like an evergreen Beech; and C. Trakiæ, still more uncommon, is represented by a small specimen. Two members of the Natural Order proteaceæ were making good progress outside. Guevina avellana is a distinct evergreen shrub from Chili, with stiff, pinnate leaves composed of five or six pairs of leaflets; the young shoots and leaves are covered with reddish velvety hairs. Lomatia ferruginea was in flower; the raceme is pendulous and the flowers are rather curious; they are more open than the usual Grevillea type, in colour yellow and red. The garden is a splendid example of what can be done in a comparatively short time when the owner takes a keen interest in his plants, and when both master and man work together in harmony.

C. F. BALL.

THE ROSE GARDEN.

AMONG THE ROSES.

FOLLOWING my remarks which appeared on page 414 of last week's issue, I now give particulars of Roses that have done well with me this year :

Rhea Reid is one of the finest new Roses. It possesses good growth, fine and very healthy foliage, the flower is carried on a stiff stalk, of good size, perfect shape and is one of the deepest reds we have. Although only procurable this spring I do not hesitate to give it every praise. It blooms persistently and is exceptionally fragrant.

Lyon, another new variety, also stands well ahead during its first season. Like the former, it is free in growth and flower, very sweet, thoroughly distinct in colouring from any other and, so far, has kept free from mildew. Both possess that stout, leathery foliage that fights against disease, and are certain to be in the smallest collections in a short time. This Rose is difficult to describe — crab red, with deeper coral red in centre, touched here and there with fiery salmon and chrome. It also reminds one of the deep glow seen in a bright coke fire. Those who know Soleil d'Or, one of its parents, will recognise what I mean.

Lady Helen Vincent resembles a deeper and better form of Dean Hole ; the base of the petals is suffused with more peach and yellow. A grand exhibition variety.

Queen of Spain, although not so new, should not be omitted. It resembles a greatly improved Bessie Brown. Unlike that Rose, it does not bend its head at all, is always of good form ; a pearly white, slightly touched with soft pink. It has one fault, however—if mildew is to be found anywhere in the garden it is on this otherwise grand Rose.

W. E. Lippiat has been pleasing. This is a brilliant velvety crimson, shaded with deep maroon ; well-pointed centre, very sweet-scented and grows well.

Dorothy Page-Roberts.—This is of the same form, but larger than Lady Battersea and suffused with much more copper and apricot yellow. A very large-petalled and fragrant variety.

Ecarlate has been the brightest of all the bedding Roses ; it is a pure scarlet throughout, very free, produces large trusses, sweet-scented and makes an even bed that is aglow with colour all through the season. I like this Rose very much. It appears to possess Camoens and Marquis of Salisbury habit, but is better than either.

Climbing Cecile Brunner will prove very useful. This blooms more freely than the normal variety, and I think it has a little larger flower. The trusses are large and it has been very showy here.

Betty possesses some of the largest petals of any Rose. Although not so numerous as some would like in an exhibition flower, it makes a serviceable bloom, always opens well and remains showy a longer time after expansion than most. A clear coppery red overlaid with pure salmon ; very beautiful late in the season.

Lena is a pretty, well-formed bud of great length. It is carried in trusses of twelve to twenty, is in bloom all the season and is a capital bedder. A unique colouring of glowing apricot, paling to primrose with age.

Mrs. Aaron Ward is a Rose that has come to stay. A vigorous and free-branching habit, the blooms carried well above the foliage, very fragrant and one of the best rosy yellows we have. It has splashes of salmon and saffron that make it altogether distinct from others, and is a good all-round variety for any purpose.

Mme. Simone Beaumez is a welcome button-hole Rose or for vase decoration. The stalks are long ; so, too, are the buds. Flowers bright shining white, shaded with saffron yellow.

Lately we have had more than one name attached to the same variety, and some are rather confusing. For example, we have Maman Levavasseur, Baby Dorothy and Phyllis that are synonymous. [No, Phyllis is distinct.—ED.] This is really a very dwarf and perpetual-flowering form of Dorothy Perkins. Then we have Maman N. Levavasseur, Baby Rambler and Dwarf Crimson Rambler. The latter name affords these three a good description ; they are identical. Lily Ito, a newer climber, is so much like, if not quite identical with, Félicité Perpétue that we shall only grow the older variety ; while of the Dwarf Polyanthas we must not miss Mrs. W. J. Cutbush, a very clear flesh and deep pink, distinct from Baby Dorothy and, I think, a little clearer. Lately, too, we have had Joseph Lowe and Lady Faire, both so much alike that I fail to see any difference, although procured direct from the raisers and growing side by side. Atlas and Mina Barbanson also favour these very much. I am convinced I could cut flowers from all four of these that would fit for either name and puzzle the actual raisers to detect the difference. There has been a great increase among the rampant climbers, mostly in the newer class of wichuraianas. Many of these are so nearly alike that we did not need them ; but a few are good and I should choose the following as the best. There are few prettier Roses than tall standard stems with drooping Roses flowing over like the scarlet Thorns and Laburnums. On the lawn as single specimens, or dotted about here and there upon grass plats, they are magnificent.

Euphrosyne is a soft rose-coloured form of Crimson Rambler, and very suitable for this purpose. The old Crimson Rambler produces too upright a growth to look so well.

Stella, a new vivid carmine, single, produced in large trusses the whole length of the shoots, with very showy stamens, lasts a long time and ends with a wonderful show of pretty heps in the late summer.

Wedding Bells is white, only sometimes touched with soft pink on the edges.

Débutante is much softer in colour than Dorothy Perkins, but we must still include this old favourite.

Hiawatha is a deep crimson, with a touch of white at the base of the petals. The flowers are borne in immense trusses, last an extra long time and are as perpetual as the Teas.

Minnehaha grows a little stronger than Dorothy Perkins, has much larger and deeper-coloured flowers, better-shaped trusses and is a decided improvement. It also blooms a little later and gives a better late crop.

Sussex. A. P.

THE NEW NYMPHÆA STELLATA EARL OF WARWICK. (*Reduced one-fourth. See page 422.*)

TWO GOOD NEW ROSES.

MM. PERNET-DUCHER have sent out so many beautiful Roses that anything fresh from them can be relied on more than from most of the Continental growers.

Arthur R. Goodwin is one of their latest novelties. In growth it somewhat resembles the Lyon Rose, but is not quite so stout with us yet. It is very free, and flowers from every side shoot from the maiden stage upwards. It is not so large as Lyon, and, I think, a little longer in the bud ; quite distinct in colour—a coppery orange and red, with a good flush of the shrimp pink found in a bright-coloured Lyon Rose ; while none can beat it for scent.

Crepuscule.—In growth this much resembles L'Ideal, but is hardier with me, almost as much so as the wichuraianas. The colour is buff-yellow, suffused with salmon, and quite distinct. The medium-sized flowers are borne in clusters and very sweetly scented. P.

THE FRUIT GARDEN.

METHODS OF RENOVATING VINES.

TO amateur gardeners generally the idea of overhauling the borders before the leaves have fallen and the current year's growth attained full maturity may seem a somewhat risky operation, and that is one reason, I believe, why we so rarely see Vine borders under renewal from the end of July and onwards, excepting in large establishments where they are under the care of a skilful professional. However, providing a few details are properly observed and the work carried forward expeditiously, there need be no risk, but, on the other hand, a great benefit will result and much valuable time be gained so far as the following year's growth is concerned.

Vineries may be classed under three heads, viz., early, intermediate and late. Early vineries are those which are started into growth during the latter days of autumn or early winter, to provide fruit for early June gathering; intermediate vineries are usually started early in the New Year, from mid-January to mid-February, and come into bearing during July and August; and late vineries are those which are generally allowed to start into growth of their own accord, with as little artificial heat as possible, a condition usually adhered to during the whole period of growth, so that the crop may be kept back as long as possible.

Now, of all the vineries which require the most attention to secure yearly a good crop of Grapes, the early vinery is the one most likely to suffer from inattention to details in culture, which is necessarily different in many ways on account of the time in which the Vines have to make growth, flower and produce a crop of fruit. Days are short, sunshine may be out of the question for days, and even weeks, and the general conditions prevailing, together with forced growth under artificial heat, put a severe strain on the Vines, which must be counterbalanced at the earliest opportunity if success is to be looked for as each year begins afresh. Therefore, in the case of the early vinery, to wait until all the foliage is off and the rods at rest before applying new soil to the borders and making a thorough examination of the roots is not the best method of ensuring future success.

The fruit in early vineries is usually cleared off by the end of July or early in August, but a few remaining bunches will not deter the enterprising gardener from making an examination of his borders and Vine roots about this time of the year. The new compost should be mixed ready, and consist of four barrow-loads of good fibrous loam chopped roughly, one barrow-load of sweetened manure, one barrow-load of wood-ashes, half a barrow-load of mortar rubble passed through a half-inch sieve, a 6-inch potful of bone-meal, or other good fertiliser, to each barrow-load, and half a hundredweight of half-inch bones to the whole, mixing all well together by turning not less than three times. Observe the proportions given above, whether the heap required be large or small.

It is best, if possible, to renew half a border one year and the other half in the year following. Commence by taking off the top soil at the point furthest from the base of the rods, using a fork and gently pricking and prising the soil from among the roots, preserving all from injury as much as possible. All roots should be carried backwards out of the way as they are unearthed, and they should be kept sprayed with tepid water and covered with wet sacks or mats until ready to be placed in the new soil again. It will be found in most Vine borders that many of the roots, from the thickness of a lead pencil to a man's finger, will have run several feet without producing any fibres, and the present operation presents a very favourable opportunity to increase the desirable rootlets to the lasting benefit of the Vines. When replacing the roots in the new soil, make tongues about 18 inches apart in these bare roots with a sharp knife on the under-side, the cut to go halfway through the root and about 2 inches long. Keep the cut open by placing a chip of slate or crock between, and lay a good handful of silver sand over it when placed in position. New rootlets will push out from these tongues as they become callused over, and the border will soon be full of feeders, extracting their full share of the good food put there for their benefit. Should the weather be very sunny on the completion of the renewals, a light shading may be necessary for a week or two, and the Vines should be sprinkled lightly to freshen them up. The roots will soon take hold of the new compost, and long before the Vines have gone to rest a good foundation will have been secured on which the new crop will attain success.

Intermediate and late vineries may be treated in a similar manner if the fruit is quickly cleared from the rods; but if left hanging for a considerable time after once ripe, it is best to leave renewals alone until all the foliage is off and the Vines are quite at rest. MIDLAND.

THE KITCHEN GARDEN.

A GOOD MAINCROP PEA.

THE maincrop Pea named Senator is not grown nearly as much as its merits deserve, as in addition to its wonderful cropping qualities it is one of the best-flavoured Peas grown, and I find that in some counties it is known under the name of Improved Charles I. It is a great favourite in gardens where tall Peas cannot be grown, as it only reaches a height of from 2½ feet to 3 feet, and the pods, which are a beautiful green, are packed with Peas, each containing eight to ten. As shown in the illustration, it is a wonderful cropper. The pods are long and narrow, and are packed so firmly that the yield is very great. I have referred to it as a maincrop, but in the Midland and Northern Counties I have had excellent results on open borders when this variety was sown for an early supply, as it is very hardy and not readily influenced by severe weather. For autumn supplies it is most valuable, owing to its dwarf habit and free-cropping properties. For this purpose it may be sown in July on an open, sunny border. G. W. B.

A GOOD CROP OF PEA SENATOR.

THE FLOWER GARDEN.

DAFFODIL NOTES.

DOUBTLESS there are some readers of THE GARDEN who have only lately fallen victims to the fashionable and fascinating hobby of growing Daffodils, and such, I think, will be glad of a few hints and suggestions of an elementary kind.

HOW TO BEGIN.

The very first thing to be done is to buy a copy of the two best books on the Daffodil, viz., (1) the late Rev. S. E. Bourne's "Book of the Daffodil," published by John Lane, price 2s. 6d.—this deals with their cultural requirements very fully and, at the same time, familiarises the reader with the various types of flower and their structure; (2) "The Latest Hobby," issued by Cartwright and Goodwin as part of their first bulb list in 1908—this gives exhaustive information about raising seedlings and crossing the different varieties so as to secure the best results. This may be out of print, but if it is I would suggest that a second edition be issued soon. Books do not take the place of a practical acquaintance with the growth of plants, but, all the same, we can get a very great deal of useful information from them.

The next thing is to select a suitable position in the garden for the beds. In doing this we must remember that Daffodils do not like any place where it is very hot and dry, nor, on the other hand, do they like a place where the sun never comes or where they are exposed to all the cold winds of spring. I am a great believer in the value of double digging. Our pets like a good rootrun, and the greater the depth of soil that we can give them the better. A convenient width for the beds is either 4 feet or 3 feet 6 inches, and the alleys between them may be 15 inches. I must repeat the old familiar advice never to use fresh farmyard manure in the soil. Bone-meal is the best and safest food to use. It may be dug in the top spit when the beds are being prepared.

SOME DETAILS OF CULTURE.

An important point is always to plant as early as possible. This is one of the secrets of having fine large blooms, and it is also better for the health of the bulbs. I do not suppose either Mr. P. D. Williams or Mr. E. M. Crosfield, two of

our greatest cultivators, ever have their choicest varieties out of the ground on August Bank Holiday. Another detail is to leave enough space between the rows to allow a small hoe to be worked at frequent intervals. Stirring the surface of the ground is most beneficial, as it aërates the soil and conserves moisture.

As a general rule, bulbs may remain undisturbed for two or three or even four years. After that time they will be better for a change, for if they are doing well they will be getting crowded, and if they are not transplanting may give them a new lease of life.

Daffodils may be planted at a depth which allows from 4 inches to 5 inches from the top of the bulb to the level of the ground in the case of the larger kinds, and about 1 inch less for the smaller ones. In exceptionally light soils 1 inch or 2 inches deeper would very likely be beneficial.

What to Buy.

In compiling the list which follows I have tried to imagine myself without a single Daffodil, and that then I have selected the fifty varieties that I would buy to form my first collection if I were not to give more than 2s. for any single bulb. As all the varieties enumerated are to be found in the ordinary trade lists of those firms who make a speciality of Narcissi, I am not giving any detailed description, but simply grouping the different types more or less together, which will give a general idea of what individual varieties are like.

Yellow trumpets. — Emperor, Glory of Leiden, Maximus, Golden Bell, P. R. Barr and Queen of Spain (Johnstonii).

White trumpets. — Mme. de Graaff.

Bicolor trumpets. — Apricot, Empress, J. B. M. Camm, Victoria and Mrs. W. T. Ware.

Cups with yellow perianths.— Autocrat, Blackwell, Gloria Mundi, Barri conspicuus, Firebrand, Torch, Leonie, Sir Watkin, Frank Miles, Beauty, Blood Orange and Flamingo.

Cups with white perianths.— Albatross, Lucifer, Citron, Duchess of Westminster, White Lady, Ariadne, Lulworth, Dorothy Wemyss, M. M. de Graaff, Minnie Hume, Artemis, Waterwitch, Crown Prince and Flora Wilson.

Eyes. — Ornatus, Homer, Horace, Cassandra, Recurvus, Eyebright and Comus.

Doubles.—Argent, Orange Phœnix and Golden Phœnix.

Bunch-flowered. — Elvira (Poetaz) and Campernelle Jonquils (Rugulosus variety).

I have roughly added up the cost of this collection, and I think I might venture to say that any dealer would supply one bulb of each of the above fifty varieties for about 28s. 6d. to 30s., and that if three or six of a sort were ordered there would be a proportionate reduction. JOSEPH JACOB.

NYMPHÆA STELLATA EARL OF WARWICK.

THIS is a very beautiful variety of the well-known and popular Water Lily, Nymphæa stellata, the colour being a pleasing shade of rose pink. It was shown before the Royal Horticultural Society on the 3rd inst. by the Earl of Warwick, when it received an award of merit.

THE HOARY MULLEIN.

(VERBASCUM PULVERULENTUM.)

THE Mulleins are steadily assuming a more important position in our gardens, their distinct character and generally imposing spikes of flowers making them acceptable in many positions. The number of species is large, and within comparatively recent times quite a number of hybrids have been introduced into commerce. Some of the species and several of the hybrids are of extremely imposing appearance when well cultivated and in suitable places, their bold, branching or simple spikes of blossoms, reared well above the other occupants of the border, giving to the latter quite an imposing appearance.

One of the most useful in my garden is that shown in the accompanying illustration, whose stature may be judged from the fact that the wall is 6 feet high. It is one of the descendants of plants originally raised from seeds sent me from Bithynia, and which were pronounced to be V. pulverulentum, said to be also a native of Great Britain. The height of our native plant is given by Babington as 3 feet, but it is seldom that the plants in my garden are so small in stature, and they are generally from 6 feet to 9 feet high. The finest plants are from self-sown seeds, the seedlings being allowed to remain where they appear. The defect of this Mullein is that it is usually a biennial, the seedlings of one year blooming the next and dying after they flower; but occasionally the seedlings will bloom the first year, and sometimes a plant which has flowered will make growths at the base and may survive for another year or two. Self-sown seedlings are produced freely, and these can either be allowed to remain or may be transplanted to where they are intended to bloom, or even into the reserve garden, where they can stay until the position they are to occupy is ready for them. They should, however, if at all possible, be planted in their flowering quarters in autumn in preference to spring. Verbascum pulverulentum seems to prefer a rather dry and free soil, and it will even grow well by the edge of a gravel walk, sending up there, as well as in the border, its towering, branching spikes of yellow flowers with scarlet stamens and white hairs in the centre. I prefer it to V. olympicum, the spikes being more leafy and the whole plant more attractive.

Dumfries. S. ARNOTT.

THE HOARY MULLEIN (VERBASCUM PULVERULENTUM) IN A SCOTTISH GARDEN.

SWEET PEA CHAT.

NEW VARIETIES.—I brought my last notes to a conclusion in a eulogy of Mrs. Andrew Ireland, and my particular reason for reminding my readers of the fact is simply because it is necessary to make a comparison between that variety and Apple Blossom Spencer. I, probably with many others, thought that these would prove to be nearly, or quite, identical; but this is not the case, for the base colour is different, and there is no gainsaying the statement that the Englishwoman—or ought I to say Scottish woman?—is infinitely the better of the two as well in regard to trueness as to form and colour. Apple Blossom Spencer may therefore depart with King Edward Spencer and The King.

Although St. George has been on the market two years already, it is, perhaps, permissible to speak of it here. Last season it was disappointing in the extreme, owing to the fact that it devoted such a lot of its energy towards the development of tendrils that it forgot that its mission in life was to produce flowers. To be brief, it has done just about the same this year, and notwithstanding its undoubtedly brilliant colour from some growers, it is much to be feared that it will have to go. Kitty Clive, as I have grown and seen it in the gardens of my friends, is in somewhat the same character, but is a more profuse flowerer, though not as good as one could wish, either in this direction or in growth.

Nancy Perkin I have not seen sufficiently to form an absolute judgment which satisfies myself, but I am fast reaching the conclusion that Earl Spencer is preferable. I should not like to say that they are the same colour or the same form; but they are so close that the two are not wanted except in the most complete collections, and my vote is for Earl Spencer.

Princess Victoria, which, it will be remembered, was blessed by Royalty at the Royal Botanic Gardens last summer, proves to be a splendid Mrs. Hardcastle Sykes. Here we see a little trouble. There are two forms of Mrs. Sykes in commerce, one of which is pale in colour and the other much richer; it is the latter, and in my own opinion the better, that Princess Victoria resembles. One cannot help regretting that the two forms should have been distributed under the same name, as it must inevitably lead to confusion, in which an innocent individual or firm often comes in for undeserved censure. Evelyn Hemus and Mrs. C. W. Breadmore are so close that no one need think of growing the two, and those who favour the latter will not go astray. Kathleen Macgowan is a lovely shade of lavender, and will find many admirers next season, as, indeed, it has done this. Lavender George Herbert is a most unwieldy name; but the variety is good if it can be persuaded to come within measurable distance of trueness. This and the one immediately preceding came from Breadmore.

This name reminds me of Etta Dyke and Audrey Crier. The former still maintains its proud position as the finest exhibition white, and appears likely to do so; the only one that might challenge it is Florence Wright, but this was not true at Reading, there being waved and smooth forms in the row. When quite fixed it should be welcome, as the colour is pure and solid and the flower large. Harking back now to Audrey Crier, one speaks of the most glorious and the most disappointing of varieties. In perfect-form condition there is no more attractive Sweet Pea in cultivation; but, unfortunately, it seems to be impossible to get it to come true.

One which caught my fancy at Reading for its colour was Marian Cautley. The flower is certainly rather on the small side, but the soft rose overlying buff is a charming shade that will light up splendidly on the dinner-table, and for this purpose alone will be welcome. SPENCER.

CAMPANULA PUNCTATA.

THIS Campanula is an old inhabitant of our gardens, but is far more rarely met with than its merits warrant, seeing what a noble border plant it is, for when its ornamental properties are considered it is surprising that it should not be widely grown. When in good health it is a vigorous perennial about 2 feet in height, with large, hairy, cordate-ovate leaves, the upper ones being sessile. Its beauty consists in its pendulous, bell-shaped flowers, which are fully 2 inches in length. As a rule the blossoms are white in colour and are spotted internally with minute purple dots. In some cases, however, the flowers are of a delicate rose colour, and in others they are violet. The white form is, however, the commonest, and is perhaps also the handsomest, for large clumps over 3 feet across, such as that depicted in the accompanying illustration, when covered with hundreds of their large, pendent, white bells, are as attractive border plants as can well be imagined. In the shape of its flowers, which are almost Gloxinia-like, it bears a strong resemblance to the hybrids C. Burghalti and C. Van Houttei. Should it show signs of failing health, it should be at once lifted and replanted in rich, porous compost. The colony here represented, however, has been in its present position for four years, and at present shows no sign of loss of vigour. It is a native of Siberia and occurs in China, Corea and also in Japan.

South Devon. W. FITZHERBERT.

COLOURED PLATE.

PLATE 1381.

SOME GOOD NEW NARCISSI.

REFLECTIONS AND DESCRIPTIONS.

THE blooms which are pictured in the coloured plate are very characteristic of the Daffodil autumn, for large-eyed Engleheartiis and bright-eyed Poets are invariable reminders, like Hairbells (should it be Harebells?) and Hard-heads in our hedgerows, that the feast of summer is almost over. These particular varieties have been raised by the Rev. G. H. Engleheart, and they have been introduced into commerce by Messrs. Cartwright and Goodwin of Kidderminster, who kindly provided the flowers from which the plate was made. *A propos* of late-flowering sorts, it is interesting to recall a conversation I had, after the Midland Daffodil Society's annual meeting this year, with Mr. Goodwin, and Mr. Adams of Wolverhampton who has lately raised some excellent seedlings, notably King-Cup, a grand cupped variety after the style of Homespun. These gentlemen said that they had seedlings which flowered too late for the shows, and that it would be difficult to decide how best to exhibit them. I know that our Dutch friends, too, have a number of very late new sorts. Probably it is the same with most people who are raising seedlings. These facts, I would suggest, point to the desirability of having a late northern show, which might cater for its own immediate locality and, at the same time, provide a rendezvous for late flowers from elsewhere.

In describing different varieties it is difficult to convey by a written description the little differences which mark them off from others very similar, and wherever there is a picture of them it is best to let it speak for itself. I would, however, say that the two lovely Poets, Childe Harold and Oliver Goldsmith, are excellent, medium-sized flowers, with round, smooth, overlapping petals of great substance. The latter I remember seeing this year at Birmingham in Messrs. Cartwright and Goodwin's first-prize collection of true Poeticus, and admired it very much. Mariette is a taking flower, which will be useful to hybridisers, as it is a grand pollen parent. Coreen was exhibited on March 23 last at Vincent Square. I made a note at the time that it was a very good variety for pot work. It has a crinkled, much-expanded cup, tinted on the folds and at its edge with deep orange. It is rather expensive as yet; but as I believe it increases very quickly, it will before long become cheap enough to grow under glass. There is plenty of room for some distinct varieties that are suitable for this purpose. Like Mariette, it is a useful plant for hybridisers, as it is an exceedingly free seeder. I have left Evangeline till the last, because if I had begun to write about it and let myself go, I feel sure I would have left no space in which to mention the others. All that I have written about its good qualities I most fully endorse now that I have planted it, flowered it, taken it up and planted it again for the second time. It is a show flower, it is a pot flower, and, above all, as appealing to the great flower-loving public, it is a garden flower. Its constitution, its attractive colouring, the fine pose and carriage of its flowers, mark it as out of the ordinary. I originally described it as a white Homespun; I think, however, a bicolor Homespun would be more correct. The cup is of a beautiful clear yellow, and the well-formed perianth an almost pure white, certainly very much whiter than it is represented in the plate. It is a decided acquisition to the ranks of our very best Narcissi, and I congratulate Messrs. Cartwright and Goodwin on their being the sponsors for its introduction. JOSEPH JACOB.

CAMPANULA PUNCTATA GROWING IN A SOUTH DEVON GARDEN.

GARDENING FOR BEGINNERS.

PROPAGATING ROSES FROM CUTTINGS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Mossy lawns are always unsatisfactory and prove very trying to the person who likes to have a nice green lawn of closely cut grass. In winter-time, and, indeed, in the spring, too, when the season is cool and rains are frequent, the mossy lawn looks green; but very soon after a dry, hot period comes the moss shrivels up and the lawn presents a brown appearance. I have seen newly formed banks covered with turves in which there was little else besides moss. Even in the winter it looked bad; in summer it was positively ugly. How much more satisfactory it would have been if nice grass turves had been procured and laid down in the first instance. Although the present time is not suitable for the lifting or relaying of turves, a great deal may be done towards improving lawns where moss is growing in quantity. Take a sharp-toothed iron rake and collect all the moss possible; then vigorously brush the lawn. When rain comes the grasses will have a chance of growing again and spreading before the moss can do so. Furthermore, it will be advisable to put on some rich, sifted loam and to sow some lawn grass seeds. In the absence of rain, water with a fine-rosed watering-can and roll thoroughly. Thus bad patches may be greatly improved. Continue to insert cuttings of bedding-out plants of all kinds and be careful not to overwater them in the pots and boxes, else they will decay.

1.—PORTIONS OF ROSE GROWTHS FROM WHICH CUTTINGS CAN BE MADE. HYBRID TEA ON THE LEFT AND WICHURAIANA ON THE RIGHT.

Vegetable Garden.—The Autumn Giant Cauliflowers are now turning in rapidly, and, in order that waste may be obviated, the cultivator must examine the plants every day and break down a few of the big leaves over the hearts, or flowers. The latter must be protected thus long before they have fully developed, as late coverings would not greatly retard them and would not prevent discoloration by full exposure. Advantage ought to be taken of every fine day to get all ground occupied by winter greens well hoed, as small weeds must be killed, and this can only be done by hoeing them while the weather is very fine. There is more moisture under the large leaves of the plants than in open quarters. Dwarf Beans are very useful at this season, and are, moreover, very tender and palatable, especially when gathered from plants growing in a rich soil. For many years I relied upon late-sown seeds to produce plants for the supply of late August and September pods, rather than put up with the small, tough pods from the tops of older plants. At this season a thick mulch of well-rotted manure was put on, and plenty of diluted liquid manure given through the top-dressing, with the result that long, straight, tender pods were plentiful until frost came. The tops of the stems of Jerusalem Artichokes may now be cut off.

Fruit Garden.—The potting of rooted layers of Strawberry plants for forcing should be completed as quickly as possible now. It is absolutely necessary to success to get the pots, in which the plants are finally placed, full of roots by the end of October. Use good loam and a very small proportion of leaf-soil, and a peck of horse-manure to each bushel of the above as a compost. Pot firmly. Place the plants in the warmest position that can be found. Put the pots on boards and syringe the foliage freely; also water judiciously so as to encourage quick root-action. The young shoots of the Japanese Wineberry must be drawn out very carefully from the older wood and exposed to the air and sunshine to ripen; then they will bear fruit freely next year.

Greenhouse and Frames.—Bougainvillea glabra is a very fine greenhouse climber, and no time must be lost in getting the flowered portion of the wood cut out. In no case must any of the branches be cut off now nearer than 1 foot from the old stem. Plumbago shoots may be similarly treated. Early flowering Chrysanthemums should be placed in the greenhouse without delay. Admit plenty of air to the plants and clear off all faded leaves. If hot weather comes, water the plants carefully and feed them, but do not keep the soil in a saturated condition. As early frosts will soon come now, mats or other protecting material must be got ready for placing on frames containing such plants as Primulas, Cinerarias, Calceolarias and Cyclamen. The watering of all subjects in frames must, at this season, be done with great care. B.

PROPAGATION OF ROSES BY CUTTINGS.

THE propagation of Roses by cuttings is a very simple process, although it is little understood by a large number of gardening enthusiasts who cultivate the Rose very successfully. Those with a limited purse may find it a very excellent means of increasing their stock of plants, and where the grower has a partiality for certain varieties of the Rose, this system of increasing his stock has much to commend it.

The first question that arises is, "When is the proper time for the propagation by cuttings to be carried into effect?" The work may be done in August, September and even later with considerable success. Many people do not attempt to insert their cuttings until September, as they fear they cannot get the growths sufficiently firm for the purpose; but in a normal season there should be abundant material available in all collections of Roses throughout August, especially in the latter part of that month.

The choice of cuttings is a most important matter. They should be those that have finished their growth and become sound and well matured in consequence. I prefer to secure well-ripened side growths that have borne flowers to all others, but this is not always possible. Preference should be given, however, to the kind of shoot I have just suggested; and to illustrate this and make it quite clear to readers, two illustrations of the best shoots for this purpose are given in Fig. 1. On the left is represented a side shoot of firm growth with the spent flowers depicted thereon. The other represents a growth of one of the wichuraiana ramblers, and anyone knows that they are abundant on all these fine bushy roses, so that with a supply of such material it is possible to raise these free-flowering plants in large numbers.

In detaching these cuttings from the old plant, rather more than ordinary care should be observed. It is well to place a sharp knife just below the joint formed by the union of the growth with the main stem, and with a sweeping cut to detach this from the parent stem. It will be noticed in the illustrations that each cutting has been detached with what is termed a "heel"; that is, a portion of the stem of the parent plant. With such material there is a greater chance of them rooting than would be the case with the cutting simply detached in ordinary form. Where it is impossible to detach the cutting in this manner, growth of a lesser length should be detached instead, and this cut through immediately below a joint. In Fig. 2 there is depicted the two growths from which cuttings have been made. These are the same growths as are shown in the first illustration, and are represented in this case properly prepared and ready for insertion. The reader will notice that all the lower leaves have been removed, leaving three or four near the upper portion of the cutting. The top of the growth is also severed, so that the cutting when prepared may be anything between 6 inches and 10 inches in length. This may vary in some cases. As a matter of fact, in quite a number of cases the cuttings are not more than 6 inches in length, but in the case of the rambler Roses they may be much longer.

At this early period cuttings may be inserted outdoors in any cool situation, and if I had the choice of position I would choose that under a north wall or hedge. The ground previous to the insertion of the cuttings should be dug over carefully and the soil broken up, incorporating with it at the same time a good quantity of coarse sand and, if possible, some leaf-soil. On no account should a wet day be chosen for the

2.—THE SAME SHOOTS AS SHOWN IN FIG. 1 MADE INTO CUTTINGS READY FOR PLANTING.

SOME GOOD NEW NARCISSI.

Childe Harold 3 Mariette.
Oliver Goldsmith. 4 Coreen
5 Evangeline

3.—THREE CUTTINGS INSERTED IN A POT 5 INCHES IN DIAMETER.

operation, as it is most unwise to tread about on the bed when there is a likelihood of making the soil sticky and pasty. The cuttings may be put in with a dibber, but I prefer to cut a small trench some 4 inches or more in depth, placing a layer of sand at the bottom of the trench and adjusting the cuttings in this some 6 inches apart and in rows 1 foot to 15 inches asunder. As the cuttings are adjusted in position, return the soil, making it quite firm at their base. When the operation is completed, the quarters should be neatly finished off and the cuttings given a good watering in, so that the soil becomes thoroughly saturated. Here the cuttings may remain until the succeeding year, when, in the autumn, they may be lifted and planted in their permanent quarters.

Those whose requirements are less may root their cuttings quite satisfactorily with the aid of pots; those 5 inches or 6 inches in diameter answer well. Three cuttings of suitable size may be inserted in a pot 5 inches in diameter, as represented in Fig. 3. Of course, the cuttings must be prepared similarly for this purpose as for those inserted in the beds outdoors. That the rooting process may be promoted, it is well to cover the surface soil in the pots with a layer of sand, so that as the hole is made with a small dibber for the reception of the cutting the sand may be carried into the bottom of the hole on which the cutting must certainly rest. The soil should be made quite firm at the base of each cutting as it is inserted, in order that the rooting process may be satisfactory. Where smaller cuttings are used, it is possible to put as many as six in a pot of this diameter, and cuttings procured from Roses that have been grown in pots provide ample material of the kind just mentioned. It is important to remember, when preparing the pots for this purpose, that they should be quite clean and that the drainage is properly effected. The crocks placed in the bottom of the pots should be covered with some of the rougher portions of the soil before the finer soil is placed therein. As each pot of cuttings is completed, stand it in a cool place until the whole collection is done. They should then be watered in and, after standing to drain, placed in the cold frame for the purpose of rooting therein. I prefer to plunge the pots in such material as that of a spent Cucumber frame, as this enables one to maintain an equal condition of the soil, in which case the cuttings root more readily. The frame should be kept rather close, and the frame-light placed thereon must be shaded as protection against the scorching rays of the sun. The soil at all times needs keeping just moist, and if in the early morning the cuttings are sprayed with clean water from an Abol syringe, this will assist in maintaining them in a satisfactory condition. When rooted, those struck in August may be potted up into other pots 3 inches or rather larger in diameter, and such little plants will flower quite satisfactorily in the succeeding season; but those struck later are best kept in the pots and potted off in spring.

Those who have the convenience may insert their cuttings in a cold frame in the same manner as was suggested for the nursery bed outdoors, the way in which this should be carried out being shown in Fig. 4. Cuttings properly controlled as I have suggested will quickly develop into charming little plants, so that in the following autumn it should be possible to lift these with a nice ball of soil and roots to be transferred to their flowering quarters outdoors. Little or no pruning is advised the first season after planting. Those who have never yet tried this method of increasing their stock of Roses should take advantage of the hints given herein to commence operations at once, and there is no reason whatever, provided the material we have described can be obtained, why the whole of the cuttings should not root quite readily. There is always this to be said in favour of own-root Roses—one is never troubled with wild suckers such as budded Roses produce from below the ground line, as every growth belongs to the Rose itself, and not that of a Briar or Manetti stock. D. B. C.

HARVESTING ONIONS.

THE Onion is a very useful vegetable at all seasons of the year, but especially so in the winter-time. As to the good keeping of the bulbs, much depends upon the way in which they are harvested. As a rule the small bulbs keep longer and better than the large ones, so that it is advisable to store the latter by themselves and use them first. Not a single bulb must be uprooted until it is fully matured. When ripe the bulbs are detached from the soil with the greatest ease. Place them in rows on the bed if the weather is settled for a few days, and in an open shed, on mats, in dull, showery weather; but do not pull up the Onions while they are wet. The best bulbs may be "roped" when the skin has set well and rustles when touched. The smaller ones must be stored on lattice-work shelves or very thinly on stages in cool structures. I like to keep Onions on small-meshed wire-netting suspended several feet from the floor in a cool room. SHAMROCK.

THE TOWN GARDEN.

DAHLIAS.—The Dahlia is one of the most useful of all flowering border subjects. The plants are robust growing and are not absolute failures even when grown in very poor soil, and when given good treatment they fill up gaps well with massive foliage and bear abundance of blossoms. The first buds that form are not always the best shaped nor the largest, neither are they the richest coloured. Usually they possess the shortest stems, and are, in consequence, unsuitable for placing in the long vases now so much used. There should be no hesitation in sacrificing the first blooms, which are mostly hidden by the ample foliage, and using them as traps for catching earwigs. The blooms must be cut off and placed in the plants near the main stem, up which the pests crawl. Each morning these blooms must be carefully examined and any earwigs found in them shaken out and destroyed. Terminal buds now developing must be assisted by liberal supplies of manure-water to the plants. Avoid any digging of the border near the roots of the plants.

CHRYSANTHEMUMS, GLADIOLI AND HERBACEOUS PLANTS.—Unless the cultivator requires extra large blooms of Chrysanthemums, disbudding must not be done. Border plants are much more effective when all the flower-buds are allowed to develop and, in some instances, form sprays. The Chrysanthemum is an extremely useful plant, as, unlike many kinds of plants, it will withstand the necessary mutilation of some of its roots and recover from the undoubted check given when being lifted at this season for placing in flower-pots. Slight frosts do not kill the plants either, and so the town gardener may possess in garden and cool greenhouse or glass porch a nice display of flowers at a season when the latter are somewhat scarce. A few hints on the lifting and potting of the plants will be useful to many readers of THE GARDEN. No plant must be lifted while the soil is dry around its roots. The proper way to set about the work of lifting is to first thoroughly saturate the soil with water; then with a spade cut through the soil at a distance of 9 inches from the stem of the plant, all round it, about a fortnight prior to the lifting. In the meantime the soil must be kept watered in the absence of rain, and pots not less than 10 inches across should be washed and dried. Only a few cinders need be put in as drainage material. Finally lift the plants with the aid of a garden fork, not a spade. Some of the soil will drop away, but sufficient may be retained and also fibrous roots to enable the plant to finish the development of the unfolding buds. Make the soil moderately firm around the roots in the pots, then give water and place the plants in a sheltered position for a week or so. While it is advisable to keep the soil in the pots in a consistently moist condition, it is unwise to oversaturate it; but the foliage may be syringed several times each day in bright weather. At the end of a week the plants may be taken to the greenhouse, conservatory or porch, and air admitted to them freely. No attempt must be made to force the opening of the buds by giving manure-water; clear is the best. Gladioli are now looking very beautiful, and no time must be lost in putting neat stakes to those specimens needing support. Weak doses of liquid manure will greatly assist in the development of the top flower-buds. Stronger doses of liquid manure may be applied to herbaceous plants that are bearing a second crop of flowers; but those on which all flowers have faded must not be so treated. In their case it will be necessary to remove all faded blossoms and decaying foliage.

FLOWER BOXES AND BASKETS.—If it can be avoided, no cuttings ought to be taken from the plants in the boxes and baskets, as it is best to keep these receptacles as gay as possible until late in the season. Every fading flower must be removed; then fresh ones will grow more quickly. At every alternate watering give weak liquid manure to put more strength into the fresh shoots. AVON.

4.—ROSE CUTTINGS PLANTED IN A FRAME.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Fruits Under Glass.

POT VINES.—Where these are forced to supply Grapes very early in the season the canes should now be almost matured, the buds plump, and the wood hard and of healthy, brown colour. The pots, if air has been abundantly supplied, may now be stood outside; a good position is by the side of a south wall where the canes can be made secure. Let the pots rest on boards or coal-ashes to prevent worms entering, water freely in hot dry, weather and supply a little liquid manure at intervals. Young Vines which may not have completed their growth should be hastened along as fast as possible after this date, so that the canes may be fully ripened by the end of September. Afford ample ventilation during bright weather and fire-heat if the days are dull and sunless. Keep the laterals constantly pinched, and syringe twice daily to keep the foliage free from insects.

Melons.—Crops which are fast approaching ripeness will need plenty of fresh, warm air circulating among the fruits and a reduction of atmospheric moisture. See that the roots are kept just moist enough to keep the plants healthy, using clear water at this stage. Later batches will need to be hastened along, and plants which are now in flower should have a sufficient quantity fertilised to form a crop; those at the top part of the plants usually make the finest fruits. Top-dress frequently with a little fresh, sweet soil, so as to encourage and preserve plenty of surface roots, and attend regularly to the pinching and stopping of the surplus growths.

Plants Under Glass.

Azaleas, which have completed their growth and are standing outside, must not be neglected. Syringe overhead daily with clear water, and should the foliage become infested with insects, dip the plants, if not too large, in a suitable insecticide or syringe well, especially under the leaves. The same remarks apply to Camellias and many other kinds of plants required for spring blooming. Raise a good batch of Coleus, to be grown in small pots during the winter, and gradually reduce moisture at the roots of Caladiums, Gloxinias, Gloriosas and other bulbous plants which require rest during the winter.

Primulas.—Keep these sufficiently moist to maintain a healthy appearance, and let them be stood on coal-ashes in cold frames and shaded from the strong sun. Repot those which may require it, using clean and well-drained pots, but do not overpot at any time; it is by far the best for the plants to have two repottings.

Roman Hyacinths.—These, to supply white flowers from Christmas and onwards, should be grown extensively in all gardens. Six or eight bulbs may now be potted in 6-inch pots well drained and clean. Use an open soil moderately enriched with decayed Mushroom manure, leaf-mould and grit; do not bury the bulbs too deeply, and water a few hours previous to plunging the pots under 6 inches or 8 inches of coal-ashes. Narcissus Scilly White and other bulbs treated similarly will be found useful.

Freesias.—Attention should now be given to these small bulbs. We generally plant five in 5-inch or 6-inch pots, using a rather sandy, fibrous loam and leaf-mould well mixed together. Stand the pots in a cold frame, and later they are taken to a greenhouse with a gentle warmth, where they bloom very freely. A little Clay's or some other artificial manure greatly assists the size and robustness of the plants.

H. Markham.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

Vegetable Garden.

Tripoli Onions.—These for standing through the winter should now be sown. Ground in good heart is best for this crop, and if prepared a short time ago, so that it has had time to settle, so much the better. Make the surface quite fine and draw drills about 1 foot apart and 2 inches deep. When covered in again soot or burnt refuse may with advantage be spread over all; finish off as usual by raking and treading to obtain the necessary firmness.

Spinach for winter use must now be sown, the process differing but very little from that detailed for Onions. Sow the seeds thinly, or, at least, thin the plants to 4 inches apart when large enough to handle. Affording plenty of room induces sturdy growth, and less would probably be heard of the loss of this crop in very inclement weather were more attention paid to this point.

Cabbages.—A second sowing of these may shortly be made, selecting a well-exposed site where the plants are not likely to become drawn; thin earlier sowings in good time, and sprinkle with soot to keep slugs at bay.

Tomatoes against walls will now be ripening, to assist which some of the foliage may be removed, also all flower-scapes, as fruit setting after this time cannot ripen, though it might possibly attain fair size and be useful in the green state.

Cucumbers.—Towards the close of the month plants for winter fruiting should be ready for transference to the beds. These may now be prepared; if in a structure until lately occupied by a similar crop, thorough washing of the woodwork and glass should be carried out, and new soil put in the place of that exhausted by the former crop.

Hardy Fruits.

Apples and Pears are much improved in appearance by full exposure to sun and air; where the foliage is dense a fair proportion may without harm be removed entirely, while some other may be drawn aside to effect the same end. Large fruits of both species require some support, which may be quickly given to a good number by fixing a strand of matting around the stem and making it secure to a branch.

Plums of the earlier sorts, such as Rivers' Prolific, Czar and Orleans, being heavily cropped, it would assist the trees and enable the remaining fruits to swell if many, where too thick, were pulled off as soon as a slight trace of colour is apparent, as such are excellent for kitchen purposes in general.

Fruit Under Glass.

Melons.—Encourage growth in the latest plantings by closing the house early and using moisture freely on bright afternoons. Thin the growths daily and tie to place only sufficient to make a good spread of foliage. Earlier plants having fruit ripening must have water applied to the roots very carefully, as an excess, especially if previously on the dry side, would result in the fruit cracking. Melons in frames have not had a favourable time hitherto; but where fair progress has been made, the present change to heat and brightness, together with careful attention to the clearing off of surplus growth and elevating the fruit on a level or slightly above the foliage, will make up for time lost through dull weather previously.

Flower Garden.

Roses of most kinds being past their best, all faded blooms, rough shoots and insect-infested wood may be cut away, and the remaining foliage well cleaned with soft soap and water solution applied with considerable force by the syringe or engine.

James Day.
(Gardener to Sir Malcolm M'Eacharn.)
Galloway House, Garlieston, Wigtownshire.

NEW PLANTS.

Lælio-Cattleya Black Prince.—This, as its varietal name denotes, is a very dark-flowered and handsome variety. The sepals and petals are in colour deep rosy mauve, and the large labellum is very dark velvety carmine without any of the usual markings in the throat. Shown by H. S. Goodson, Esq., Fairlawn, Putney. Award of merit.

Lælio-Cattleya Jason.—The flowers of this plant must be regarded as more curious than beautiful. The blooms are of medium size, the sepals and petals being greenish yellow in colour, the outside of the first-named being somewhat darker. The labellum is very much crimped at the edge and is of rich carmine colour, this contrasting badly with the colour of the other segments. The whole flower as shown had a rather bedraggled appearance. Shown by Lieutenant-Colonel Holford, C.V.O., C.I.E., Westonbirt, Tetbury, Gloucester. Award of merit.

Lælio-Cattleya Invincible.—This is a large-flowered and handsome variety of much vigour. The sepals and petals stand out almost at right angles and form a sort of star, the latter being broad and much waved at the margin, the colour being bright but rich rosy mauve. The labellum is large and bright carmine in colour, with just the faintest pale sulphur markings in the throat. Shown by Messrs. Sander and Sons, St. Albans. Award of merit.

Vanda cærulea Dreadnought.—This is a large and much beautified variety of a well-known Orchid, the colour being about the same hue as that of the type. The segments are very freely and distinctly mottled dull white, this forming a sort of network all over the flowers. Shown by Messrs. Sander and Sons. Award of merit.

Dendrobium acuminatum.—This is one of the most distinct-looking new Orchids that we have seen for a long time. It was, we believe, imported from the Philippines some years ago, but has not been exhibited in flower before. The individual flowers are starlike in structure, the sepals and petals being narrow and very sharply pointed and a sort of flesh pink in colour, this shading off to nearly white at the tips and deepening to almost carmine at the base. The labellum is of moderate size and the same colour as the other segments, except, perhaps, that it is a little paler and almost diamond shaped with very acute apex. The plant itself has pseudo-bulbs somewhat resembling those of a Cœlogyne, and foliage nearly like that of some Cattleyas. Shown by Messrs. Moore, Limited, Rawdon, Leeds. First-class certificate.

Cirrhopetalum pulchrum Cliftonii.—A very unique and beautiful plant possessing considerable vigour. The specimen shown had four large inflorescences of curious-looking flowers of the usual shape, the colour being a sort of dull crimson on a greenish sulphur ground. Shown by Messrs. Charlesworth and Co., Haywards Heath. First-class certificate.

Odontioda Goodsonii.—A very distinct and remarkable addition to this bigeneric race. The flowers are comparatively large and are well placed on an erect though not over stout stem. The sepals and petals are dark chocolate coloured, or almost maroon, the latter being freely mottled with white. The labellum is rather large, fan-shaped and of the same mottled hue as the petals. Shown by H. S. Goodson, Esq. First-class certificate.

Astilbe rivularis gigantea.—A bold and handsome form of a well-known plant, which is particularly well suited to moist situations and to water-side gardening. The plant is some 6 feet in height and produces creamy-coloured inflorescences above an ample leaf tuft. Exhibited by Mr. Amos Perry, Hardy Plant Farm, Enfield. Award of merit.

Canna Roi Humbert.—A very handsome and large-flowered variety having huge trusses of flowers that are coloured dark crimson. The

ety is regarded as one of the best for purposes edding. Exhibited by Sir Trevor Lawrence, king (gardener, Mr. W. Bain), and by Messrs. s Veitch and Sons, Limited, Chelsea. ard of merit.

ladiolus Lord Alverstone.—A variety of ling merit, the bold and shapely flowers g coloured a reddish crimson and produced compact, well-filled spike

ladiolus Miss Ada Reeve—Flowers pure white large, the spike well proportioned and hand- e. This pair came from Messrs. Kelway, gport, and each received an award of merit.

olystichum aculeatum pulcherrimum plumosum feel inclined to tolerate long and far-reaching es when they practically describe the subject which they refer, and this is so in the present . The variety is one of extreme grace and uty. Exhibited by Mr. C. B. Green, Acton. ard of merit.

A botanical certificate was awarded to emonopsis macrophylla, a plant whose flowers ess a singular beauty of their own. They fleshy. The plant has a splendid branching habit and is evidently a wonderful cropper. From Messrs. Barr and Sons, King Street, Covent Garden.

The Belfast.—A long, narrow-podded and deep green variety of much promise, the pods being very firm and of beautiful texture. The plant shown had a good branching habit and was carrying a wonderful crop. From Messrs. Dickson and Sons, Belfast.

All the foregoing were shown before the Royal Horticultural Society on the 17th inst., when the awards were made.

HE EXCELLENT EXHIBIT OF FLOWERS, FRUITS AND VEGETABLES ARRANGED BY MESSRS. E. WEBB AND SONS AT THE RECENT LEAMINGTON SHOW.

coloured mauve, blue and white, and in form not unlike a small Mushroom. Exhibited by . Amos Perry, Enfield.

NEW VEGETABLES.

The following dwarf French Beans had been own in the society's trials at Wisley from d supplied by the firms mentioned, and each eived an award of merit.

Cholet.—A long, pale green podded variety of e texture. The plant has a good branching bit and appears to be very free. From MM. lmorin-Andrieux et Cie., Paris.

Evergreen.—Pods of medium length, rather rrow, Pea green in colour, of splendid texture d very fleshy. The plant is rather tall, anches well and is a prolific cropper. From essrs. Sutton and Sons, Reading.

Excelsior.—Pods very long and comparatively oad, pale green in colour and very firm and

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Rockery and Rose-bed (*Erik Schweder, Sweden*).—Unfortunately you do not give the size of either of the rockeries or the Rose-bed, and these particulars are so helpful to us in these matters. From the position of the Rose-bed we should feel inclined to turf it down as the Oaks are so near, or plant it with Lilies such as testaceum, Hansoni, or speciosum cruentum, the plants to appear out of a spring carpet of Chionodoxa Luciliæ, blue, or of Tufted Pansies. The two first-named are excellent, and if the bed is small—say, not more than 6 feet across—one variety of Lily would be sufficient, planting the bulbs 6 inches deep in liberally treated soil. We are not quite sure from your letter whether you intend making beds where the rockeries now are, and perhaps you will kindly inform us on this point and give us the size of the beds, when we will do our best to help you.

Culture of Iris Kæmpferi (*R. H.*).—This Iris usually takes two, and very often three, years before flowering plants result from seeds, and even then they are hardly representative of their kind. If the seedlings were potted on at once, giving them rich sandy soil and peat in mixture with manure, they would make far greater progress than if kept in the seed-pots and starved. When autumn arrives the plants will have practically finished their season's growth, and not much benefit would accrue to them afterwards. On the other hand, by first treating them in pots in a frame you might plant out any time when the plants had become established, giving attention to watering in case of dry weather. Afford them every opportunity of becoming as large as possible this season. In this way time will be saved. The plants being of a voracious nature, richly manured, well-prepared soil in a slightly shaded spot should be given and generous supplies of moisture while growth is progressing.

Lilium candidum diseased (*Andrew Mackenzie*).—The plants are affected by the well-known leaf fungus, which causes such destruction to the plants. You can do nothing at the present time beyond collecting and burning all the diseased parts, though it is more than likely that hosts of disease germs are already distributed around. The only possible means of allaying the disease another season or of modifying its attacks is to early syringe the plants with sulphide of potassium, using 1½oz. to three gallons of soft water, so spraying the plants that the under and upper leaf surfaces are well moistened. Even this to be of any service should be done early and repeated once every eight days or so for a time, anticipating the disease as it were. If the syringing is left till the disease appears, its spread is so rapid that it cannot be held in check. Lifting and sun-baking the bulbs has in some instances proved effectual; but so much depends on the season itself, and in a year like 1909 the cold and wet have greatly favoured the spread of the disease.

TREES AND SHRUBS.

Rhododendrons deteriorating (*M. R. H. Allen*).—Rhododendrons ought not to go back to the wild forms, unless you allow the stocks, on which the good varieties may have been grafted, to grow and smother the good ones. This is probably what has happened in your case. Look over your plants and determine whether there are suckers coming from below the graft. If this is the case, cut the suckers away and allow all the strength to go into the correct branches. The flowers you send are from Linum perenne.

Information about a shrub (*Mrs. Lyons*).—The shrub you send for name is known under several names, the common one of Snow in Summer and the scientific ones of Helichrysum rosmarinifolium and Ozothamnus rosmarinifolius. The name of Helichrysum rosmarinifolium is the correct one. It is not a common shrub, and it is only suitable for culture in the warmer parts of the British Isles. You may cut it back, but not too hard, as soon as it finishes flowering. Cuttings of the current year's shoots 3 inches or 4 inches long may be taken any time between mid-July and mid-September and inserted in a bed of sandy soil in a cold frame. Water well when first put in and keep the frame close and shaded from bright sun. It is quite likely that no more water will be required until after roots have been formed, but you must be guided entirely by the condition of the soil. The shrub is a native of Victoria and Tasmania and is of a very ornamental character.

Willow shoot for inspection (*M. L. Mahieson*).—The abnormal Willow growth you send for inspection has been caused apparently by the flowers in a catkin turning into leaves. The pointed parts are swollen ovaries, and are filled with rudimentary leaves instead of seeds and the usual cottony substance. Such an abnormal condition is unusual, and the growth is of a very interesting character.

ROSE GARDEN.

Roses for Brazil (*Border Reader*).—The more double varieties of the Tea-scented and Hybrid Tea-scented classes would be most suitable for hot countries like Brazil. We strongly advise you to send out or recommend your friend to procure plants upon their own roots. If you send from this side they should be pot-grown. The following would be a good selection to start with: Niphetos, General Macarthur, Mrs. Myles Kennedy, Lady Ashtown, Dora, Celia, Lady Calmouth, Laurent Carle, Mme. Maurice de Luze, Lyon Rose, Mme. Segond Weber, Renee Wilmart-Urban, Lady H. Vincent, Dean Hole, Princesse Mertchersky, Mme. Melanie Soupert, Etoile de France, Instituteur Sirdey, Souvenir de Thérèse Levet, Liberty, Richmond,

Grace Darling, Hon. Edith Gifford, Viscountess Folkestone, La France, Mme. Hoste, Medea, Souvenir de S. A. Prince, Dr. Grill, Marie d'Orleans, General Gallieni, Maman Cochet, White Maman Cochet, Antoine Rivoire, Mme. Wagram, Triumph, Mme. Jules Grolez, Caroline Testout, Frau Karl Druschki, Boadicea, Mme. Jules Gravereaux, Mme. Hector Leuilliot, Earl of Warwick, Joseph Hill, Florence Pemberton and Johanna Sebus.

Rose Claire Jacquier shedding its buds (*G. D. S.*).—The trouble arises from climatic conditions. There has either been too much rain, the soil has become too wet and probably drainage is defective, or the cold weather chilled the buds. Forking up the soil about the roots would help the plants considerably. Perhaps some of the growths are too old and need pruning away. Such varieties as this one will often become partially injured during a severe winter and will linger on until the blooming season, producing quite a sickly growth. We recommend a severe cutting away of any such growths as soon as the present flowering season is over, for this Rose will not bloom again in the autumn.

Rose G. Nabonnand with imperfect buds (*R. D.*).—We have had a similar experience with this Rose, though not so severely. We attribute the malformation to the terribly wet time we had when the buds were forming, and now that hot weather has come the autumn buds should be as fine as this grand Rose usually produces. Many Roses of the Tea-scented tribe were badly injured last winter, and some did not show it very clearly at the time of pruning, the result being that one was tempted to prune less severely than one should have done. It is always unsafe to retain growths that have pith the least bit of a brownish colour. Cut right back to the clear white pith, even if by so doing you cut right to the ground. There are always plenty of basal eyes to spring up. Some Roses that we pruned in this way even as late as mid-April produced glorious growths, each crowned with huge clusters of buds and blossoms. We should say the mulching of peat-moss litter you gave the Roses would have been better left off. In such a wet season as we have had, these warmth-loving Teas prefer the soil to be well aërated, and this is not possible when it is covered with this rather close-lying manure. Remove the mulch at once and have the soil just lightly forked over, and by the end of September you should have a fine display.

Roses on own roots (*McH.*).—Undoubtedly, Roses on their own roots would make more bushier plants, and would certainly cover the beds more quickly when once they become established; but the difficulty is in procuring the same. If you applied to any of the leading growers for a quantity of a sort of the most popular bedding Roses, you would probably be told they could not supply them, and if they had a fair number they would be in pots, which makes this class of plant expensive, and not only so, but they are wretchedly small to start with. If you tried the Continent for franc de pieds you would probably obtain the Chinese on their own roots, but the Teas and Hybrid Teas would be root-grafted—that is, the Roses are grafted on to pieces of Briar roots. We may say we have had no difficulty in making splendid masses of these Roses by using budded plants on Briar, but we have always planted them closer together than is usually recommended and pruned them nearly to the ground each year. About 15 inches to 18 inches apart each way is ample when a mass of growth is desired, and by pruning them to within 2 inches or 3 inches of the ground you ensure a good display from the basal eyes. Some varieties that are rather tall-growing, such as Mme. Abel Chatenay, may be induced to fill the beds quicker by bending one or more of the growths on each plant so that it is almost horizontal. This may be done by driving some pegs into the ground. Growths will spring up from every eye and you will have a fine display.

FRUIT GARDEN.

Peaches falling (*G. H. A.*).—The variety Early Alexandria is notoriously bad for dropping its fruit. We think the cause must be overcropping. The tree has been struggling to mature and finish its crop, but has failed at the last moment through having more to do than its strength can accomplish. The fruit is perfectly formed and the stone quite healthy, showing that there was no fault in the setting. You must be content with a lighter crop next year, when you will have finer fruit and a more certain crop.

Strawberries going wrong (*Rich*).—The Strawberries have been attacked by red spider, and to this attack the purplish appearance and crinkling of the leaves are due. The plants should be sprayed with potassium sulphide, 1oz. to two gallons of water; but at this stage it will probably do little good, as the mites will be protected by the web they have spun. The leaves of the plants may be cut off with a scythe now and allowed to dry on the bed, then burnt where they lie. This will not harm the plants, but will destroy large numbers of red spiders and eggs.

Figs decaying on the trees (*F. W. S.*).—The cause of the decay in this instance is, we think, the long-continued spell of cold and damp weather experienced this year. We hope and believe that now we are favoured with warmer weather the decay will be arrested, and that your Figs will swell up perfectly. This is a common complaint among Figs as they approach ripeness, and is generally caused by the tree or trees being overcrowded with branches, making it difficult, and sometimes impossible, for air or sunshine to penetrate among the branches of the tree, or for the fruit to be exposed to the latter's influence. The remedy lies in the timely thinning out of the useless and weak branches, thereby letting the fruit and remaining branches have a free exposure to abundance of light and air.

Vine leaves spotted (*Hambro*).—The spots on your Vine leaves are, we think, sun spots, the result of the recent great heat. We notice that red spider is present. This should be got rid of by heating the water in the pipes to boiling point, and then painting them over with flowers of sulphur made into the consistency of paint by added water. This should be repeated for two succeeding nights, closing the vinery to prevent the fumes of sulphur escaping. The piece of wood sent is well developed and splendidly ripened, and the attack of spot on the leaves need not, we think, cause you any alarm. Give your Vines abundance of air day and night. Encourage lateral growth and see to it that they do not want for water at the roots, using weak manure-water for preference.

MISCELLANEOUS.

Clover on lawn (*W. E. T.*).—Your trouble with creeping Clover on a lawn is but a repetition of what was so common an experience some two or three years ago, when too abundant rains caused this Clover to grow rapidly and overpower grass in so many directions. There seems to be no remedy whatever other than continuing to do as you have done—keep the Clover in check by tearing it out with a very sharp-toothed rake. Sulphate of ammonia, whether applied pure or in conjunction with white sand, as Lawn Sand, temporarily burns the leafage; but the heavy rains which have been so frequent speedily dissolve it, and thus it becomes potent manure. If you can by constant use of the rake keep the Clover in check, when hot, dry weather came it would soon dwindle, as being shallow-rooted it suffers from drought more readily than grass. This Clover seeds freely and thus spreads itself rapidly. It is for this reason all the more difficult to check. Very likely the introduction of so much Shamrock from Ireland, which the Clover is, has something to do with its spread over British lawns.

Names of plants.—*L. High.*—The Sweet Pea looks like Gladys Unwin, but the flowers were too withered for us to say with certainty.——*F. W. D.*—Salvia Horminum.——*Fookes.*—Acanthus longifolius.——*J. M.*—1, Aspidium angulare; 2, Nephrolepis cordifolia; 3, Scolopendrium vulgare marginatum; 4, Asplenium Filix-fœmina var.; 5, Aspidium falcatum; 6, Pteris tremula; 7, Nephrolepis tasselata.——*F. H.*—Leycesteria formosa and Rhus Cotinus.——*A. B. Stevenson.*—Artemisia vulgaris.

THE EDITOR'S TABLE

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London, W.C.

SWEET PEAS FROM PRESTON.

Mr. W. Hindle, Pilot Cottage, Longton, near Preston, sends us flowers of Sweet Peas, which are of good quality considering the time of year. He writes: "I am sending you a few varieties of Sweet Peas, viz., Etta Dyke, Prince Olaf, Pink Pearl, Helen Lewis, Hannah Dale, Countess Spencer, A. J. Cook, Chrissie Unwin, Clara Curtis and Dobbie's Mid Blue. I hope they will arrive in good condition and adorn your table. The stems have been cut short, but were formerly quite 12 inches long."

ROSES FROM SCOTLAND.

Dr. McWatt of Morelands, Duns, N.B., sends us a beautiful collection of climbing Roses and also some other interesting plants from h Scottish garden. He writes: "I send you Gent ana tibetica; Spigelia marilandica, a plar rather difficult to grow, tubular flowers re outside, yellow inside; Gentiana septemfida, beautiful plant with its blue-white flowers i clusters; Rodgersia podophylla, with its fine large, bronze leaves, grows here in damp, peat soil; a large variety of climbing Roses; an some other things."

ANTHOLYZA PANICULATA.

Messrs. Barr and Sons, King Street, Coven Garden, send us a plant of Antholyza paniculata which at first sight reminds one of a well-grow Montbretia or Tritoma. Messrs. Barr write "In case it may interest you, we have pleasur in sending herewith for inspection Antholyz paniculata. This is very easily grown in cold frames or under a south wall. Like many of the other Irideæ, it likes plenty of moisture while in growth and liberal feeding. If potted up in spring, it can easily be grown on a window-sill or balcony, provided that as soon as the plant has made about 12 inches growth it is kept in a saucer of water."

SOCIETIES.

DUMFRIESSHIRE AND GALLOWAY HORTICULTURAL SOCIETY.

THE annual autumn show of the above society was held in Cresswell Park, Dumfries, on the 14th inst., the exhibition being opened in a graceful speech by Lady M'Taggart Stewart of Southwick. The show, which was held in conjunction with Highland games organised by the society, was the best held for many years although the nurserymen's exhibits were less numerous than they might be. Messrs. Dobbie and Co., Rothesay sent one of their fine groups of Dahlias and other flowers Messrs. James Service and Sons, Dumfries, exhibited sixty varieties of Sweet Peas, together with Phloxes and other flowers; Messrs. G. Fairbairn and Son, Carlisle exhibited Sweet Peas; Messrs. Thomas Kennedy and Co. Dumfries, showed Sweet Peas, Roses and hardy flowers and Mr. M'Lauchaln, Stranraer, sent horticultural structures.

Several leading competitions were of special value, one of these being that for the Dumfries Corporation Cup with a sum of money added, for a table of plants. Mr J. M. Stewart, Mollance, who has won this cup severa times, again secured it with a tasteful table of excellently grown plants. Mr. R. A. Grigor, Dalswinton, was a very near second. The silver cup given by Messrs. J. Service and Sons, for twelve groups of Sweet Peas, proved the means of bringing out a splendid exhibit of these favourite flowers. Mr. Grigor, who was the winner last year, was second this time, Mr. James Duff, Threave, coming in ahead, although in the opinion of some the positions should have been reversed.

For vegetable growers the Dunn Memorial Fund Prize consisting of a medal and a sum of money, was the central attraction. It was offered for ten varieties in a collection and here Mr. J. M. Stewart proved the winner, his produce winning by five points above the collection shown by Mr. Middleton, Kirkcudbright.

Among the other classes, the Sweet Peas, which everywhere brought out good competition, were among the best things, the leading winners in these being Mr. Grigor, Mr. Duff and Mr. J. M. Stewart.

Roses were very well shown by Messrs. T. Smith and Sons, Stranraer, who were first for twenty-four Roses and for eighteen Teas; Mr. H. Marrs and Messrs. W. and T. Kirk, Dumfries. In the other cut-flower classes the principal winners were Messrs. C. Murray, Cowhill; J. Wilson, Summerville; R. A. Grigor; J. Brown, Carrutherstown W. Scott, Drumpark; B. Rutherford, Glenlair; J. and W. Tweedie, D. Whitelaw, J. M'Leod, W. Anderson, J. B. Dedman and W. and T. Kirk.

Pot plants were better than usual, but those of the amateurs, in particular, stand in need of improvement. The leading winners were Messrs. R. A. Grigor, J. Wilson, J. M. Stewart, W. Anderson, A. M'Allister and D. J. Maxwell.

Fruit was barely up to its usual standard at this show, but the collections of Grapes and Peaches were fine. For the former Mr. Stewart was first, Mr. B. Rutherford being second. These gardeners, together with Messrs. J. Duff and W. Scott, were the most successful in the other fruit classes.

Vegetables were good for the lateness of the season, and in the collection class Mr. J. M. Stewart, who, as already mentioned, won the Dunn Medal, was again first, Mr. J. Duff being second. Other winners of first prizes here were Messrs. J. Morrison, W. Scott, R. A. Grigor and J. Henderson; together with Messrs. D. J. Maxwell, W. Anderson, R. Middleton, W. and T. Kirk and A. M'Allister among the amateurs.

In the florist's classes, Mr. J. Henderson, Elmbank, was the most successful exhibitor.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

LILIES AND HOW TO GROW THEM.

THE early summer-time of the present year will long be remembered as one of the most uncongenial by reason of the almost incessant rains, the generally sunless time and the remarkably low temperature that prevailed, which, taking the broadest possible view of gardening operations, at that time was not an influence for good. To some extent the abundant and beneficent rains were required by crops generally, and all that was needed to render the season an ideal one was that degree of warmth which was most conspicuous by its absence.

Certain groups of plants—the Pæonies, Flag and other Irises, Larkspurs and the like—delight in an abundant supply of moisture at their roots, while those plants with frail or easily bent stems, or others whose flower-heads receive and retain much moisture, are weighted down, and the twisted and distorted stems rarely assume the erect poise again.

The Lilies, generally speaking, were better off, though for some of these the continuous cold and wet was more than they could endure, and late-planted bulbs, particularly those of the auratum type, perished in the soil as a result. Another great drawback to such prolonged cold and wet is that certain species early fall a prey to disease of leaf and stem, and none more so than the still welcome and beautiful Madonna Lily (L. candidum), which in these days rarely passes through a season unscathed. Time was, however, when this pure and spotless Italian Lily was the crowning joy of scores—aye, hundreds—of British gardens, imparting to them a beauty and a fragrance—grateful and pleasing, yet not overpowering—that rendered this lovely species absolutely and entirely unique. Then the towering shafts of its blossoms, ranging from 4 feet to 6 feet in height, were the most prized possession of the July garden, and seen in groups or forming low-placed avenues beside spacious walk or drive, or ranging themselves at intervals like sentries in the well-filled flower border, where grassy path or near-by tree shade but revealed the greater purity of the exquisitely sculptured blossoms, this lovely Lily was a sight to behold. To-day, however, we have to mourn its loss, either wholly or in part, and in our endeavours to retain it in our gardens we adopt certain devices whereby we hope to secure a small proportion of the success of former years. These, however, entail the lifting and drying of the bulbs for some considerable time, and if the weakening effect of this is to deprive our gardens to some extent of the imposing groups of former years, we get a little satisfaction from the fact that a small spike of Lilium candidum is better than no spike at all.

This exquisitely pure and beautiful Lily is well-nigh of an evergreen character, and it is doubtless largely due to this characteristic that the plant suffers so much from being out of ground for prolonged periods. Scarcely have the flowers faded in the waning days of July when a little later the new basal leaves appear. And for this reason it is highly desirable—almost essential, in fact—that the bulbs be planted or transplanted during the month of August. The plant is obviously a sun-lover, and will raise its crowded bulbs to the surface and, when in good health, go on flowering year after year with apparent impunity. This Nature-taught lesson should not be overlooked, and shallow planting generally should be the order of the day. It will doubtless be of interest to readers of THE GARDEN to know that this Lily may be planted near trees with excellent results, and especially so if placed in the near proximity of Yew, Holly or Pine, the dark colour of leaf and branch but reflects the greater purity of the blossoms. On one occasion some bulbs that had been by accident left near the base of an Araucaria made a capital group in about three years, and the effect was very fine. It is also highly probable that the drier conditions generally found in such a place are of material help in keeping the worst phases of the leaf disease of this Lily in check. Indeed, some bulbs greatly weakened by disease planted at the foot of a Laburnum, where they have since become carpeted by London Pride, give moderately good spikes each year; while the picture is so good as to be worth repeating in other parts of the garden.

A very beautiful and generally a good garden Lily is L. testaceum. It is of robust habit of growth, possessing certain affinities with L. candidum, which is one of its reputed parents, and towering away to 5 feet or 6 feet high gives its apricot-shaded flowers in July. It is a distinct and good Lily in every way and, being fairly cheap, should be found in every garden. Like L. candidum, L. testaceum is also an early riser, and if we bracket with these twain the very handsome L. Hansoni, we have, I believe, a trio difficult to equal for earliness, distinctness, vigour and good flowering. The whole of these flower naturally in July, and when in good condition are not likely to disappoint the cultivator. The last-named should be planted where shelter is afforded both from cold winds and strong sunlight, and if the root-run is in comparative dryness so much the better.

Some years ago, at the Lily conference at Chiswick, I stated my belief that the Lily to

some extent delighted in the root companionship of other plants, and to-day, in the case of Hanson's Lily and some others, I am enabled to emphasise the point. The forms of L. auratum are very much at home in these and similar conditions, and in particular are they benefited by being associated with Rhododendrons and other plants, which, while affording shelter in spring from late frosts, also protect the bases of their stems in summer-time from scorching sun and heat. This latter protection is most necessary to the more vigorous of the stem-rooting class of which the auratums and the speciosums are notable examples. Equally important is it that such as these should be planted rather deeply, certainly not less than 6 inches, and better at 8 inches, so that these stem roots as they emerge may receive the support the soil provides. Generally speaking, too, these great stem-rooting sorts also delight in rich soils, and manure may be deeply dug into the soil or afforded as a mulch with much benefit. Indeed, and as a matter of fact, deep or shallow planting, manuring or otherwise, may generally be determined alike by stem roots and no stem roots—those that are said to possess one, and those which possess two, root-actions each year.

Usually those Lilies minus stem roots are slow to become established, and instances occur in L. chalcedonicum, in the Martagon group and in some others, as, for example, the swamp or moisture-loving Lilies among others. Naturally, there may be exceptions to this; but the intelligent cultivator in possession of a broad basis to work upon will be able to judge for himself and to modify such details as may appear to him necessary in his own particular sphere of operations. The lovely and imposing L. Henryi, if secured low down and afterwards allowed to go its own way, will reveal a beauty and grace that no other Lily possesses; but if, on the other hand, its stately and imposing stems are rigidly fixed to a Hop-pole, you see the latter, while the Lily for all purposes of beauty and garden ornamentation may as well be non-existent. Hence the Lily may be studied from many standpoints, and, being unique, is worthy of all the consideration we can afford. E. H. JENKINS.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

*** *The dates given below are those supplied by the respective Secretaries.*

September 8.—Royal Caledonian Horticultural Society's Centenary Exhibition, Waverley Market, Edinburgh (two days).

September 16.—National Rose Society's Autumn Exhibition, Horticultural Hall, Vincent Square, Westminster, 1 p.m. to 6 p.m.

Garden plans and Rose photograph.—Will Mr. J. W. Forsyth, who sent us plans of gardens on July 12 last, please forward his address? We should also like the name and address of the sender of a photograph of "Rosa Brunonis on the North Side of a Surrey House at 6 p.m."

Introduction of the Tulip.—The Royal Horticultural Society's Journal for July, which is just published, contains a most interesting article on "The Introduction of the Tulip and the Tulipomania," by Mr. W. S. Murray. Those who are unfamiliar with the tremendous sensation the introduction of the Tulip to Europe caused, and the subsequent gambling with the bulbs as stakes that occurred, will find much that will interest, and not a little that will amuse, in this well-compiled article.

The Gardeners' Royal Benevolent Institution.—By kind permission of Waldorf Astor, Esq., the beautiful gardens at Cliveden will be open to the public on Thursday, September 16, in aid of the funds of the Gardeners' Royal Benevolent Institution.

Black scab in Potatoes.—The Board of Agriculture and Fisheries desires to remind all growers of Potatoes that it is their duty, under the Destructive Insects and Pests Order of 1908, to report all outbreaks of warty disease or black scab (Chrysophlyctis endobiotica) on their premises to the Board. The penalty for failing to report the disease is £10. Certain British Colonies now require a certificate from the Board with every consignment of Potatoes exported to them from this country, to the effect that the Potatoes have been grown in a district not infected with this disease. Exporters who require further information can obtain it on application at the offices of the Board.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Pea Senator.—I have read with great interest the note on page 421 respecting this valuable Pea and noted the accompanying illustration. For many years I grew this Pea expressly to supply our Surrey school gardens, as no variety I have ever met with seems so suited for such a purpose or is so remarkable a cropper. In a trial this year, which included the new Rearguard and Senator, the latter was the earliest to pod, the former the latest, later, indeed, than Gladstone. When I think one of the last great Pea trials took place at Chiswick, both Senator and Gladstone obtained the highest awards as heavy croppers. I should like to see someone intercross these two varieties and doubtless secure from them a midseason Pea of special merit. While both have long, narrow, curved pods, they are close to the Peas, and invariably are well filled. I think it would be no risk to back Senator, early, and Gladstone, late, as the heaviest producers when shelled from a given length of row of any Peas we have, and, remembering what splendid varieties we have, that is saying much. —A. D.

Roses in West Lothian in 1909.—Some few weeks ago I had the privilege of giving in THE GARDEN a list of the Roses that nearly always succeed in this late, cold district. Judging from the letters that have reached me these notes have been of considerable interest, and perhaps a few supplementary remarks on some of the varieties that are not quite reliable enough to have been placed in that list may also be of some use to intending planters of the newer Roses. I may say that this has been one of the very best Rose years in my experience of this district, and that is rather curious when we consider the cold, sunless summer. Mildew, which was most troublesome last year, is practically unknown up to the time of writing (August 23). Green fly was plentiful early in the season, but the heavy rains washed off the bulk of these pests that had escaped the finger and thumb cure. The plants bloomed very late; indeed, it was the first week in August before we had a really good show. We have been rather unlucky with the beautiful new Lyon Rose, two of our best plants having died during the winter. It is certainly a glorious flower, for besides being unique in colour it has wonderful substance, so unlike numbers of the new Roses, which, unfortunately, seem to be retained only for colour. Mrs. Aaron Ward also has substance and the flower is of a beautiful orange, or, to follow the catalogues, "Indian yellow," shade. This is our first season with this Rose, so I am unable to say how it will succeed under different weather conditions. Like the majority of Pernet-Ducher's introductions, it has excellent foliage. M. Paul Ledé is a beauty, but varies slightly in colour; some blooms are nearly pink, while others are deeply tinted with yellow. It has a fine upright habit, and I hope it may prove a constant friend. Antoine Rivoire is not quite so good as usual this year; it is a very free bloomer and stands wet fairly well. Betty has been really grand. If some of our raisers could only give us a perfectly full Rose of this colour, they would confer a great favour on all lovers of the Rose. Bessie Brown.—Only a very occasional bloom ever opens of this grand show Rose. Dean Hole has been rather disappointing this season. Edu Meyer is a lovely Rose, but a poor "doer" in this garden. Frau Peter Lambert has done very badly, the petals rotting with the damp. J. B. Clark is a disappointing Rose; it is vigorous, but the blooms hang down and are by no means numerous. L'Innocence is a lovely white Rose, but hardly satisfactory this year. Mme. Melanie Soupert is a beautiful Rose when half-expanded, not quite full enough, but the petals show fine substance. Mildred Grant simply refuses to succeed here. Mrs. W. J. Grant has been very fine this season, the climbing form especially so. Richmond is very poor. Warrior is a glorious colour, but the blooms lack substance; may be better after the plants get well established. William Shean is a beauty, but very weak in growth here. Ben Cant has never done much good with us and the colour is rather poor. Bob Davison behaves the same. Frau Karl Druschki has been grand this season; but Helen Keller was a failure. Hugh Dickson was first-rate in every way. Hugh Watson blooms well, but the colour is poor this year. Of the newer climbers, Dorothy Perkins, Grüss an Teplitz and Leuchtstein have been magnificent.—C. BLAIR, *Preston House Gardens, Linlithgow.*

Narcissus Engleheartii.—As suggested by the Rev. J. Jacob in THE GARDEN of August 21, that some growers of this beautiful class of Daffodil should give readers the benefit of their experience, I have pleasure in sending a few notes on the constitution and vigour of the varieties grown here. With the exception of one or two "miffy gentlemen," I find these flat-cupped varieties, as a class, quite as vigorous as any of the other classes. Of course, there are a few weaklings to be found in every class, such as Tenby, Colleen Bawn and Tortuosus among the trumpets, Princess Mary and Dr. Fell among incomparabilis, most of the Johnstoni varieties and some of the old double sorts. Among the Engleheartii we find Gold Eye a perfectly heart-breaking variety; it grows poorly, only gives an odd flower and practically no increase. Egret, a flower not unlike Gold Eye, does better, although by no means robust. Moira, a flower of rare beauty and great substance, is also rather "miffy." With the exception of the above varieties all the Engleheartii grown here are as hardy and vigorous as Poeticus ornatus. The beautiful Incognita is a very robust plant, free flowering, multiplies quickly and does particularly well as a pot plant. The orange apricot cup stands the sun well; of course, it fades a little, but does not scorch. Cresset is another well-known flat-cup that there is nothing weak about; its vivid orange red cup also stands the sun well. Mr. Engleheart's Mars, a variety seldom seen, is a charming flower with a large, flat, cinnamon buff cup—a fine bit of colour—and a primrose perianth. This variety is very vigorous but late-flowering, which possibly accounts for its absence from the show stands. Another beautiful new variety in this section with a robust constitution is Mrs. Percy Foster, a flower with exceptional substance in its white perianth, but the price of this (five guineas a bulb) is still rather prohibitive. Other flat-cups grown here are Dolly, Lady Edith Foljambe, Mrs. J. A. Cooper and Pole Star, all very vigorous sorts. Soil and climate are important factors in the conduct of the different varieties, particularly the weak sorts; all our Daffodils, however, are grown in a rich, friable loam about 18 inches deep, with a limestone subsoil.—J. SANGSTER, *Lissadell.*

—— Mr. Jacob's remarks in a recent issue in condemnation of the Engleheartii varieties of

Narcissi seem to me to be rather too sweeping. Engleheartii *per se* is not a "miffy" section; the act that some of its varieties are not strong growers applies equally to all sections of the genus Narcissus. On the face of it there is no reason why the "flat eyes" should not be strong, healthy growers; the parentage of most of them is Princess Mary × Poeticus. Princess Mary, here with me, at any rate, leaves nothing to be desired as to strength of growth and floriferousness, and as to Poeticus, its use as a pollen parent, not only in beautifying but also in imparting strength to the constitution of other sections, is now, I should think, pretty well known. With one exception, those of the Engleheartii section tried here grow like weeds, such as Sequin, Southern Star, Concord, Cresset, Chough and Harold Finn showing fine healthy growth and increase; the exception is Gold Eye, of which I find several other growers also complain. Mr. Jacob's mention of Dorothy Pearson reminds me of a curious incident. At the Birmingham Daffodil Show this year I exhibited a seedling of my own raising, Equinox by name, pedigree Princess Mary × Chaucer, three years from seed, which Mr. Robert Sydenham pointed out to me was exactly identical with Dorothy Pearson in all respects, and this opinion was subsequently confirmed by other experts. It was impossible for this flower to have come from an offset accidentally left in the soil, as I had never had Dorothy Pearson growing in my grounds.—F. HERBERT CHAPMAN, *Rye*.

Japanese Irises in a Cheshire garden.—I am sending you a photograph of some clumps of Japanese Irises growing in my piece of water here. They have flowered unusually well, and as I have never seen anything equal to them, you may like to insert a photograph in THE GARDEN. I have a walk of a little over 200 yards alongside the water, and have seventy-one clumps, such as you see in the photograph, growing for the most part in and alongside the edge in from 6 inches to 8 inches of water. The whole of these clumps, which are protected by wire from rats, have flowered profusely, and as I have some of the finest varieties, they make a beautiful sight. Those shown in the illustration were planted about four years ago, though I have had them all for some time, as I brought some back from Japan in 1884, and I have grown many from seed taken from my own plants. I am able to let the water off in my lake, and this enables me to plant them carefully at the right depth and in a good compost. In some places the muddy soil is good enough; in other places, when it is a bit sandy I make a good bed for them of rich soil with some well-rotted manure mixed with it. They love moisture and warmth.—GEORGE DIXON, *Astle Hall, Chelford, Cheshire.*

JAPANESE IRISES BY THE WATER-SIDE AT ASTLE HALL, CHESHIRE.

ROSES AND OTHER PLANTS AT MESSRS. STUART LOW AND CO.'S NURSERIES.

DURING one of the first bright and hot days of August we spent a most enjoyable and interesting day in the extensive nurseries of Messrs. Stuart Low and Co. at Enfield, and many were the good things that we saw, not least among them being the many beautiful Roses which find a home here, so near and yet so far from London. Naturally, that wonderful variety, the Lyon Rose, attracted our attention first, and as it was being grown under ordinary conditions, we were able to see it in what may be termed a natural state. Flowering freely and possessing great vigour, we can only emphasise all the good things that have been said about this Rose. Truly its flowers are marvels of beauty. Not only do we get size and excellent form, but the shades of colour are really marvellous. Seen at different angles a single bloom will give varying depths of orange salmon hue, the result being such as one gets in shot silk.

A novelty which Messrs. Low had some doubt about, but which has proved itself what its raisers claimed it to be, is a perpetual-flowering Crimson Rambler. We saw a large quarter of this Rose in full flower, there being also an abundance of buds in all stages of development, so that the plants should go on producing clusters of flowers for some weeks. The colour of the flowers and the foliage is an exact counterpart of the type, but the blooms are rather larger.

Elizabeth Barnes is a Rose that will be in great demand for garden decoration when once its merits are fully recognised. The blooms remind one very much of Mme. Abel Chatenay, but the colour is a much deeper or richer shade of salmon rose and furnishes quite a glow at the bases of the petals. American Pillar, a lovely pink single with white centre, and White Killarney are two other beautiful novelties. Although that lovely variety, Dean Hole, is generally regarded as an exhibition Rose, one would not hesitate to include it for garden decoration could it be induced to flower as freely as it was doing in these nurseries. The long, tapering buds of silvery carmine and salmon hue are, indeed, beautiful, and those who prefer Roses of this shape should grow Dean Hole. Joseph Lowe or Lady Faire, the charming sport from Mrs. W. J. Grant, was also flowering well, its large salmon pink flowers appealing to us very much. Mme. Segond Weber is another of the newer Roses that possess buds and flowers of exquisite shape, the clear bright salmon rose colour proving most attractive. It has a vigorous habit and flowers very freely. Countess of Derby is a Rose that deserves to be very widely grown; the flowers are of perfect form, are borne freely on stiff, erect stems, the colour being salmon rose and the blooms delightfully Tea-scented. What more can man want in a Rose than this? We were pleased to see a good breadth of the pure white Dorothy Perkins, which promises to become as great a favourite as its pink prototype; it is equally as vigorous and produces its clusters of bloom in a lavish manner.

Among the older Roses that we noticed doing remarkably well, and which are worthy of inclusion in any garden, were Paul Ledé, Joseph Hill, Mme. Jules Grolez, Viscountess Folkestone, Killarney, Mrs. W. J. Grant and its climbing form, Frau Karl Druschki and Liberty.

Fruit trees are grown on a very extensive scale by Messrs. Low, and we inspected many thousands of all kinds, trained trees evidently being a great speciality. Peaches and Nectarines were particularly healthy and clean. Pears grown on the cordon system were to be seen in abundance, many being trained on the gridiron system, with three, four and five rods, these apparently coming into favour again with many growers. Some of the trees were carrying splendid crops of fruit, and all were in perfect health. The new Lowberry, which has so often been mentioned in THE GARDEN, was growing away freely and producing good crops of its luscious black fruits that have a decided Blackberry flavour. Phenomenal may best be described as an improved Loganberry. It is much sweeter, has a decided Raspberry flavour and is practically coreless.

In the numerous and extensive houses we were much interested in the enormous quantities of Orchids grown, and although it was a resting season for many, we saw a large number of first-class kinds, which, unfortunately, we have not room to describe. Perpetual-flowering Carnations are, as most of our readers know, a great speciality of this firm, and we saw several hundreds of thousands of plants of all sizes and in all stages of development. We think we are right in saying that Messrs. Low are never without Carnation blooms the whole year round. Malmaisons, too, are largely cultivated. These large nurseries are well worth a visit by anyone who wishes to see horticulture carried out on up-to-date lines.

KITCHEN GARDEN

VEGETABLES FOR USE IN EARLY SPRING.

MANY readers of THE GARDEN, and especially amateurs, will think it somewhat out of place to write on spring vegetables at this season of plenty, but of late there has been more interest taken in the vegetable garden, and I am pleased to observe that many amateurs at the present time pay more attention to quality. The hints given are written to show the importance of a good supply in the early part of the year, a season that may be termed one of scarcity. To have a reliable supply at the season named, preparations must have been made before this, but even now much time may be gained by close attention to details. Of course, the leading green crop will be spring Cabbages, and I will later on note the value of certain varieties for the work. Fortunately, with this vegetable mere size does not count, the small early varieties being vastly superior both as regards flavour and earliness. I do not intend to touch upon the value of what one may term more costly vegetables, such as Asparagus and Seakale, but upon those more easily grown and which, given proper attention now, will give a good return.

I fear many persons have none too great a liking for coarse Cabbages, and this is readily explained. We do not in April get enough variety, and Cabbage is forced upon us, with the result that the palate soon tires. This is not at all necessary, as there are other vegetables available. For many years I always planted a good breadth of Brussels Sprouts, the variety being Sutton's Dwarf Gem, a very dwarf variety and a splendid keeper also. This was planted in August and much closer than the large sorts, say, 2 feet between the rows. The plants gave a splendid return in March and April, and provided variety at a critical period of the year; but with careful selection there are other crops equally valuable.

CABBAGES.

These head the list owing to their great value if early, and though it may be full late to sow in

the northern part of the kingdom, so much depends upon varieties. Plants of good varieties can, however, usually be obtained.

Varieties.—These are fairly numerous, and it is impossible to go into details as to their value. Some of the best forms are useless when sown in the autumn and *vice versâ*. For many years Early Ellam's was a great advance on the old Nonpareil section, as the last-named was later and often ran to seed. Such sorts as Sutton's April, Flower of Spring and Favourite are small, but compact and early, and are difficult to beat. Veitch's Earliest of All, Carter's Early, Johnson's First Crop, Pearson's Conqueror, Wheeler's Imperial, Webb's Emperor, the Paris Market, Yates's Early Evesham and Blackwell Early are all excellent early sorts worth a trial, and there are others, such as Dobbie's Earliest, a great favourite in the North. Of course, a great deal depends upon planting, and this should be early, so that the plants are well rooted by winter. On the other hand, this does not mean a gross growth, but a firm one. Huge quantities of manure are not required, but firm planting is necessary. My best early spring Cabbages always followed spring Onions. The land was not dug, but merely hoed over and drills drawn. It is far better, I find, to feed just as growth is active early in the year with liquid manure or nitrates or a little guano. By growing these small early Cabbages less room is required; 18 inches between the rows is ample, and 9 inches to 12 inches between the plants. This last point the amateur should note, as it is important and a great saving of space in a small garden.

I have referred to Brussels Sprouts, and such vegetables as the late Borecoles are of great value. These are commonly known as Kales, and the hardy Arctic varieties are invaluable. Sutton's Arctic Curled is remarkably hardy, very dwarf and gives a great crop of good leafage. Of the older curled forms Sutton's A1 is a very beautiful winter variety, with a growth somewhat like a Brussels Sprout, producing a mass of small curled Sprouts of delicious quality, very hardy and prolific. Veitch's New Sprouting Kale is also a remarkably fine winter and spring vegetable, dwarf and hardy, and a great advance on the old curled varieties, as it remains good a long time without running to seed. A new Kale of recent introduction is Carter's Drumhead, a very distinct form with a solid Cabbage-like head and equal in quality when cooked to an early spring Cabbage. This I grew last winter, and with many other sorts badly injured or killed Carter's Drumhead was uninjured; it is a compact grower and worth room in all gardens.

ROOTS.

These may be made more use of than is often the case, but by this I do not mean the huge roots one often sees in shows; for instance, what is nicer than young tender Carrots? and by sowing in August or the early part of September in land well dressed with fresh lime and soot, young roots will be available from November to May. For this purpose such varieties as Sutton's Early Gem, Carter's Early Horn or Early Market are most useful, as though small the roots are sweet and make a good winter vegetable. The Carrot grown thus is quite hardy and may be left in the beds till April and used as required, as in severe weather it is an easy matter to place some long litter over a portion of the bed. The yellow-fleshed Turnips are worth a place. I am aware they are not appreciated by some, but in the early months of the year when properly cooked and well served they are delicious. Sown in August and September for use at that season they are most acceptable. Such sorts as Sutton's Yellow Perfection, Yellow Six Weeks, Golden Ball and the older Orange Jelly are all good and keep solid well into the spring. They should have an open position and plenty of room. They winter well in their growing quarters if a little soil is drawn up to the roots in winter. Other roots include such vegetables as Celeriac, Salsify and Scorzonera. G. WYTHES.

TREES AND SHRUBS.

MAGNOLIA GRANDIFLORA AND ITS VARIETIES.

IN the Midland and Northern Counties of England Magnolia grandiflora is grown, almost without exception, as a wall plant. Further South, however, it grows well in the open ground and attains a considerable size, sometimes forming a large bush branched to the ground, and at other times forming a trunk 1 foot or so in diameter with a good head of branches. In whichever way it is met with it forms an attractive feature, for it makes an excellent covering for a high wall, while in the open ground it forms a noble evergreen specimen. In addition to its usefulness as an evergreen, it has the advantage of producing extremely beautiful flowers, which are larger than those of any other hardy tree. The species appears to have been popular ever since its introduction in 1737, and during the early half of last century a great deal of notice appears to have been taken of it and variations from the type were eagerly sought after. Loudon mentions a nurseryman at Angers, M. Roy, who catalogued eighteen varieties; it is doubtful, however, whether all these were really distinct, and a comparatively small number now exist.

In its home in the Southern United States it is known as the Bull Bay, and it is stated to there form a tree 70 feet to 100 feet in height. In English gardens it does not attain to anything like its natural size, and specimens 30 feet high are an exception, while in the open ground 15 feet to 25 feet is its usual height. In the neighbourhood of London numerous fine examples are to be met with, and two fine bushes may be seen in the Azalea garden at Kew.

Like other Magnolias, this is impatient of root disturbance, and it should be planted in its permanent quarters when quite small. A rather light, well-drained soil suits it best, and it is partial to a little peat. Propagation is usually effected by means of layers, which take two years to become really well rooted. The species is too well known to need description, its immense leathery leaves and fragrant white flowers 9 inches across being familiar objects. Attention may, however, be directed to the varieties, some of which are well worth consideration.

M. g. angustifolia is readily distinguished by reason of its smaller leaves than those of the type. They are usually from 7 inches to 8 inches long and 2 inches to 2½ inches wide; the flowers are also smaller than those of the type.

M. g. ferruginea.—The principal distinctive mark of this variety is the thick, reddish felt which clothes the under-surface of the leaves. Though this felt is present to some extent on most plants of the type, it is much more prevalent in this variety. Leaves and flowers are similar in size to the type.

M. g. gloriosa is by far the most beautiful of all the varieties. It differs from others by reason of its exceptionally wide leaves and handsome, well-formed flowers. The leaves are frequently 9 inches long and 5 inches to 5¼ inches wide. It is probably the same as the variety mentioned by Loudon as M. g. obovata. It is by no means a common or well-known form.

M. g. lanceolata is sometimes called M. g. exoniensis. The leaves are somewhat similar to those of angustifolia, but the habit of the plant is stiffer.

M. g. undulata.—This differs from the type by reason of the margins of the leaves being undulated. It is not an improvement on the type.

M. g. præcox is a dwarf form which blossoms when but 1 foot or 2 feet in height; it is not often met with.

M. g. variegata.—It is rather unfortunate that this variety has been allowed to get into cultivation. The leaves are marked with yellow, but the variegation is not good and the plant is not nearly so effective as the type. W. D.

THE FRUIT GARDEN.

FRUIT NOTES.

TOP-DRESSING YOUNG TREES.—Generally speaking, when young fruit trees are well planted in soil that has previously been thoroughly prepared they make rather more growth than the grower desires in the first season, and it is commonly the case that they have to be lifted and replanted with a view to checking this tendency towards exuberance. There are instances, however, where the progress is not as good as it ought to be, and recourse must then be had to something that will encourage them to advance. To this end it is excellent practice to remove 2 inches or 3 inches of the surface soil and spread on a heavy dressing of thoroughly rotted manure, that from cows being peculiarly advantageous for this purpose, and then cover in with the soil that was taken off. There is not the slightest doubt that the trees will derive benefit from this during the present season and considerably more in the following spring, while in the early summer, after the application it will be seen that clean, excellent growth has been encouraged. In the event of this method of procedure not being convenient to growers, much good may be done by pricking over the surface and applying basic slag at the rate of 4oz. or 5oz. to the square yard from within an inch or 2 inches of the main stem to at least 3 feet away from it.

HOE AND WATER BORDERS.—These are two of the most important operations in connexion with the culture of fruit on walls, as well after the crop has been harvested as before. Many growers who do not appreciate this fact are prone to leave such work alone directly the fruits have been gathered, with the natural result that the previous good work will be largely nullified. Keep the hoe going through the surface of the soil right on into the winter, and as frequently during that period of cessation of growth as the state of the weather permits. Not only do we thus admit rain when it falls, but also fresh air, which keeps the soil pure and sweet, while at the same time we make it absolutely impossible for weeds of any kind to obtain a hold in the ground. The Dutch hoe should be utilised as a rule, but it ought to be put aside occasionally and the draw or cutting hoe used in its stead. Watering, again, is of paramount importance when the trees are finishing up for the year, and just as heavy soakings are given earlier in the season to assist the swelling of the fruits, so should they be continued now to help in the plumping up of the buds that are to carry the crop next year. The applications should commence close up to the foot of the wall and extend outwards at least two-thirds as far as the branches of the tree grow high.

TREES AFTER FRUITING.—During the time that trees are finishing their crops it is practically impossible to keep them as scrupulously clean as we should like, since nothing stronger than water is permissible, and even that has to be withheld at a certain stage. Therefore, immediately all the fruits are off the trees each one ought to be submitted to a particularly close inspection, and should any trace of insect pests be found let them be at once eradicated. In mild attacks vigorous hosing will do all that is necessary, but in serious cases it will be necessary to have recourse to one of the many excellent and perfectly reliable insecticides that will be found advertised in the pages of THE GARDEN. These should always be used in strict accordance with the instructions prepared by the manufacturers, since they know just what the washes will do when they are properly used. Home-made solutions of soft soap, quassia and paraffin are reliable and inexpensive, but the cultivator has the additional trouble of preparing them, and in any in which paraffin forms an important constituent this task is far from being as easy as it sounds. FRUIT-GROWER.

THE FLOWER GARDEN.

OW TO GROW WATER LILIES IN TUBS.

THE work of M. Latour-Marliac and others in the production of new Water Lilies has done much to add to the enjoyment of our gardens and grounds, and it is doubtful if the impetus these new plants have given the cultivation of aquatics is fully realised by any. They have added new features to our rdens, and now the lake, the pond, or the tank one of the most fascinating adjuncts to the rden during the time when these Nymphæas e in bloom. Those who possess in their gardens grounds such features as these are to be con-atulated upon their good fortune, for with eir charming occupants they are objects of e keenest enjoyment to the flower-lover.

Fortunately, however, the possession of these vely flowers is not confined to the owner of the tensive garden or to the man of means. The lla and the cottage garden need not be devoid these fine Nymphæas, and in lieu of the lake the pond, the simple tub may be the home of e of these exquisite flowers in the small garden, d a series of these will enable the owner to ltivate quite a good selection of Nymphæas ithout unduly trenching upon his space or his cuniary resources.

The first consideration in the cultivation of the ants is that of a suitable position for the tub tubs. It must be in a sunny place—one, eferably, where it will receive the sun from orning until night—as much of the success of e cultivator will depend upon the warming of e water, and in full sun the flowers will open rlier and will continue open much later, as ell as beginning sooner and continuing longer the season. Some stand the tub on the round, but the little receptacle can be made uch more natural-looking if sunk to its rim in e soil and with its edge covered with stones to itate a rockwork edging. I have found it an lvantage to secure a small ring of wood with ils round the interior of the tub, a few ches beneath the edge, and to fix on this stones to hide the wood of the tub itself. It is onderful what a difference to the appearance is makes.

Tubs are comparatively easily obtained. A troleum cask sawn in half will make two with-t much additional expense. Some use a larger ze form of cask, such as those in which oil r factories is purchased. This is cut in two a similar way. The cheapest tub of a satis-ctory kind is that formed of a cask in which eacle is supplied for farm and other uses. This well hooped; and here it is advisable to mark that casks with wooden hoops should ave these removed and others of metal sub-ituted.

The casks should be sawn in equal parts, the dges partly smoothed down, and the bore-hole, enerally in one end, plugged and made water-ght. Where the tubs are set on the ground, a lug-hole with a plug may be provided a few ches above the bottom, so as to drain off the ater if required. Where the tub is sunk this unnecessary, as the water will not need to be moved, all that is necessary being the replace-ent of the liquid lost through evaporation, &c. lthough the water may be a little dull at first fter putting it into the tub, it will purify itself, nd allowing a little of the confervoid growth hich will appear to remain will tend to keep e water pure, although this growth must not e allowed to become too dense. The tub in hich the Nymphæa shown in the illustration grown has been filled with water for about our years; this has never been changed, and o offensive odour has been perceived.

When the tub is in position, about 6 inches of ood soil, either ordinary or turfy loam, with the addition of a little decayed manure, may be put in. I prefer, however, to omit the manure where the tub is near the house, as an offensive odour may be emitted for some time.

In this soil the Nymphæa may be planted before the water is filled in. Should, however, the water have been put in previously, the Water Lily may be planted in something of the nature of an old Strawberry punnet or small basket, with plenty of holes about it through which the roots of the Water Lily may find their way. The crown of a straw hat may, indeed, be used in default of anything else. The plant is placed in this with a little soil above and below the roots, and this is weighted with stones and allowed to sink to the bottom of the tub. The best time to plant is spring, say, from March until May, but plants may be successfully put in much later.

There is considerable difficulty experienced in selecting the varieties to cultivate, as they are now so numerous and good. For small tubs there is a fascination in the small varieties, such as the Laydekeri section, including Nymphæa Laydekeri rosea, rose, passing to crimson; liliacea, lilac and carmine; purpurata, deep purple; or the more expensive fulgens, amaranth, pink and red. Then the little white N. pygmæa and its yellow variety Helvola are very fine for these tubs.

Yet, after all, the grower will yearn for the possession of some of the larger Nymphæas, delightful as are the foregoing, and the illustration of N. Marliacea albida shows that these may be cultivated in tubs as well as the smaller. It is, however, desirable to eschew the fine N. Colossea and others of great size; while a little more attention is required with the variety illustrated to ensure successful flowering. The smaller ones already named may be planted with the roots about 18 inches deep, but the large from 2 feet to 3 feet. This permits of the leaves and flowers arranging themselves nearer the centre of the tub instead of spreading well over the edge, which they will do if planted in very shallow water. Then, when the flowers begin to appear above the surface, the leaves ought to be thinned and the remainder so spread out that the flowers will receive the benefit of all the sun possible. This, I find, is one of the cardinal points in the cultivation of these larger Nymphæas in tubs.

The difficulty of selecting these larger varieties for tubs is great, but every satisfaction will be derived from those of moderate price. The Marliacea set all give good flowers, such as N. Marliacea albida, shown in the illustration, which is white tinged with flesh. N. M. carnea, pink, is also good, and I may mention that I had a plant of this flowering in August in an ordinary zinc pail. Chromatella, yellow, with beautifully marked leaves, is almost indispensable. Rosea, rose, is also excellent, and there are several other Marliacea forms more expensive but worth growing. Among the many others which are suitable I think highly of ellisiana, but, unfortunately, it always keeps comparatively high in price; it is bright rose. Robinsonii, carmine, tinged violet, may be substituted. Other good pink, rose or red varieties comparatively inexpensive are Aurora, caroliniana, Froebelii and rosea. Good white Nymphæas in addition to those named are alba plenissima, the double variety of our common Water Lily, candida, caroliniana nivea, odorata and tuberosa Richardsonii, double. Yellows of various shades will be found in chrysantha, flava, fulva, rosea sulphurea and Seignouretii (a wonderful combination of orange, rose and purple).

NYMPHÆA MARLIACEA ALBIDA GROWING IN A TUB.

Dumfries. S. ARNOTT.

WILD GARDENING.

No aspect of gardening will yield a richer floral reward in future than the creation of a wild garden or wilderness. At present there is such a wealth of vigorous-growing hardy plants available that some such extension is becoming every day more imperative, and it is only by frankly assigning such vigorous subjects as Senecios, Astilbes, Spiræas and Irises to the wild garden that we are ever likely to enjoy their luxuriance to the full. The same limitation is felt when treating those stately evergreen Bamboos as garden subjects; their place is in dell and by woodland walk, where they constitute a most effective background for all flowering plants, and in winter their evergreen character produces a pleasing effect in all woodland scenery. The whole idea of the wild garden is to employ plants capable of looking after themselves, grouping them in large masses in as natural a manner as the circumstances admit. The nature of the soil should always be studied and only

plants amenable to the prevailing conditions selected for planting. Another point to remember is that the highly dressed character of the more conventional parts of the garden should not intrude here.

The best position for a wild garden is the woodland, where the ground is sharply undulating, and if favoured with water, either in brook or lake, then its possibilities are of the highest. Less favourable positions, such as park drives, woodland walks and rides, and even meadow can be successfully planted, the latter inviting experiment more particularly with bulbous plants. It is essential to success that the initial work be performed in a thorough manner. The position ought to be well dug and manured, breaking up the soil for some distance beyond the actual line of planting, as the mere loosening of the soil in woodlands favours free rooting, thus enabling the plants to become early established, which is of the greatest importance where they receive little or no attention in after years.

The best effects in wild gardening are obtained by grouping one variety or species at a time. One thing to avoid is border planting, with its patchiness and over-regularity of height. We should aim at bold grouping, obtained either by the colour of the flowers or by the form of the leaves. Repetition, especially with plants having prominent characters, such as Gunnera, Cortaderia and Rheum, is mostly to be avoided unless the ground is so extensive that only one group comes under review at one time. Even with genera showing great similarity, like the Bamboos, it is possible to emphasise their distinctive characters by grouping those with broad leaves together, *e.g.*, Bambusa palmata and tessellata; medium leaves, as represented by Arundinaria Métake; upright growers, like Bambusa erecta and B. fastuosa; those with small leaves and graceful arching stems, such as Arundinaria anceps and Phyllostachys flexuosa; and, lastly, a goodly clump of P. nigra for the distinctive character of the jet black stems.

In wild gardening few plants come amiss, consequently native plants which appear spontaneously should be fostered, and if the following are absent from the locality it is advisable to procure these first: Loosestrife, Willow-herb, Foxglove, Gentianella and Marsh Mallow. Of exotic plants suitable for this form of planting it is well to be guided by those which are thoroughly perennial, vigorous in growth and perfectly hardy. This will include all the best of our flowering trees and shrubs, both evergreen and deciduous, and also embrace a large number of plants which under ordinary garden conditions fail to do themselves justice. Such examples occur among Astilbe, Anemone, Hemerocallis, Helianthus, Iris, Lupine, Papaver, Senecio, Solidago, Trollius and Verbascum, every one of which requires more space than ordinary gardens can supply, whereas in wild gardening one can plant by the dozen, score or hundred, and so obtain results that, in some small way, approximate to the effect produced by the same species in its natural home. Bulbous plants are never more beautiful than when enjoyed under wild garden conditions. Winter Aconite, Chionodoxa, Galanthus, Scilla, Fritillaria and Narcissus are the earliest plants to brighten the woodland in spring. Following these are many species and varieties of Lilium, some of which continue into late autumn, there to be joined by those lowly subjects, Colchicums and autumn Croci.

THOMAS SMITH.

Walmsgate Gardens, Louth.

A NOVEL WILD GARDEN PLANT (MECONOPSIS WALLICHII) IN A LINCOLNSHIRE GARDEN.

A CORNER OF THE WILD GARDEN AT WALMSGATE, LINCOLNSHIRE.

DAFFODIL NOTES.

TWO GOOD CHEAP VARIETIES FOR GARDENS.

THE incomparabilis variety, Leonie, is one of the best Daffodils for either entire beds or clumps in the border. It is very floriferous, holds its flowers well above the foliage and, in addition, it lasts a very long time in bloom. It has a fine broad, overlapping primrose perianth with a widely expanded yellow cup. As it has a grand constitution and as the price is only about 1s. 6d. per dozen, I would advise all who want a good garden plant to try it.

When I was at Lismore this spring, I saw in Miss Currey's gardens one of the most beautiful sights that I have ever seen. It was a very long bed of the old Baroness Heath, the orange red-cupped Burbidgei. I have known it for years, and can remember the time when everyone considered it a great flower; but I never thought more highly of it than I do to-day. Whether it was the sun just coming out from behind a cloud, whether it was the good Irish soil, or whether it was the enthusiasm of my hostess, I cannot say; but the fact remains, that the whole effect of the drooping, beautiful deep blue-green foliage, which seemed to have a silvery sheen all over it, and the upright, small, deep yellow and red starry flowers in their first freshness of opening standing up among the leaves, was something that once seen can never be forgotten. I have just referred to Baroness Heath in Messrs. Barr's list; it is still 3s. 6d. a dozen or 25s. per 100.

GROWING BULBS IN FIBRE.

This system has now become very fashionable. There is a great deal in it to commend it to all "sorts and conditions of men" and women. Most firms who make bulbs at all a speciality advertise some particular medium for growing them in. I have found by experience that the ordinary peat-moss litter, which is sold for bedding for horses, does very well indeed if it is well broken up and then passed through a fine

ddle with a quarter of an inch mesh. I mix me lumps of charcoal about the size of Hazel uts or a little larger with this fine peat to help keep it sweet. I know, too, a lady who only es ordinary light garden soil and who is most ccessful in the cultivation not only of Daffodils, t also with Tulips and Hyacinths. After all, e is only unconsciously going back in her actice to what Sir Thomas More advocated in 34: "These basons I caused to be filled with ry good Garden Mould and planted in the midst ulips, Hyacinths, Anemonys, Polyanthus-arcissus, Daffs, Crocus, double Snowdrops." The consequence was," he wrote, "I had them as full Perfection as in a Country Garden"—but the Tulips—"which were crowded too uch." The secret of good results consists in t giving too much or too little water and eping the bowls and vases in a dark, cool ace until there are plenty of roots and about inches of top growth. The edium they are grown in is t nearly so important a matter their treatment when growing.
erbum sap.

EPTH OF POTS FOR DAFFODILS.

A little matter that makes a nsiderable difference in the neral effect of a pot of Daffodils a sitting-room is the proportion e depth of the pot bears to the ight and size of the plants in it. ake my favourite variety, W. P. ilner. This in an ordinary tall ot loses much of its grace and egance, whereas if the 6-inch ot is only 4 inches deep a far tter result is obtained; in fact, am rather beginning to think at, except for a certain few rge and tall kinds, shallower ots in any size are the best. At olland House Messrs. D. Dowel nd Son of Hammersmith had a rge selection of various sizes. oubtless other firms supply the me, but at the present moment do not know of them. These warf flower-pots may be escribed as midway in height etween a seed-pan and an ordi-ary flower-pot, and can be had in ny size between 3¼ inches and 8 inches in diameter.

JOSEPH JACOB.

THE OURISIAS AND THEIR CULTURE.

LTHOUGH there are many beau-ful species belonging to this enus found in the Andes of outh America and in New Zea-nd, so far only one has become ell known in our gardens. This the popular O. coccinea, which makes such a vely display when planted in situations favour-ble for its development. On the margins of nall water-courses its creeping stems will amble over the damp stones, producing an oundance of somewhat oval leaves, deeply and regularly notched. From May to September ne lovely, drooping, scarlet flowers are produced corymbs on stems reaching to a height of early 12 inches. This species comes from the sland of Chiloe, situated off the south-west xtremity of Chili, and was introduced into cul-ivation by Messrs. Veitch and Sons in 1862. It readily increased by means of division in inter or spring. Another species, O. cæspitosa, as also been in cultivation, but is probably lost gain or is extremely rare.

The latest addition of the genus to our gardens the plant illustrated, O. macrophylla. It is a eautiful plant and comes from New Zealand, here in its native habitat it is said to be very effective. Seeds of it were received in this country in 1906, from which the present plants were raised and sent out by Bees, Limited, of Liverpool in 1908. The plants were grown in pots in a cold frame, in which they stood the winter, and will probably prove to be quite hardy.

They commenced to flower early in April and produced a succession of flowers for about six weeks. As will be seen in the illustration, the plants form a tuft of handsome leaves, from which the flower-stems are freely produced. These stems bear several whorls of white flowers, eventually attaining to a height of over 1 foot. It promises soon to become plentiful, for it has ripened plenty of seed, which was sown as soon as it was ripe. The seed germinated freely in about a fortnight from the date of sowing. Another species also now in cultivation, but of which I have not seen a flower, is O. cockayniana, also from New Zealand.

THE NEW OURISIA MACROPHYLLA.

All these plants require plenty of moisture, but at the same time the soil must not be allowed to get sour. Loamy soil with plenty of leaf-soil and sand is suitable for them, but when planting near the edges of water plenty of good-sized stones should be mixed with the soil. G. R.

THE SILK VINE (PERIPLOCA GRÆCA).

FOR covering arches, pergolas and buildings this free-growing climber is well adapted, and deserves wider recognition than it possesses at present. Commonly known as the Silk Vine, it is of rampant growth, and will succeed in any position and almost any soil. The leaves, which vary in shape from ovate to lanceolate, are of a bright green colour. The flowers are produced freely on the present season's growth during July and August, and though of a dull colour are, nevertheless, quaint-looking and interesting. E. BECKETT.

THE ROSE GARDEN.

ROSE LADY WATERLOW.

IT is quite a mistake to call this lovely Rose a climber, because one is apt to avoid it if no wall or arch space is available. In reality it will bloom as freely as a bush or standard as one could desire. I had it recently growing as a 3-feet bush, every shoot crowned with its exceedingly pretty buds and blooms. I am not at all surprised to find it is gaining in favour each year. I sent a note about it soon after its introduction, in which, I think, I predicted a popularity for it. I hardly know how to describe its colour. The catalogues call it salmon rose, edged carmine. This conveys no idea of its beauty with the lovely orange hue prevalent at the base of the petals or the delightful apple blossom tints of the inside of the outer petals. When the buds expand they reveal a flower of most delicate beauty. The growth is good and the foliage prettily serrated and elongated, proclaiming at a glance to the rosarian that it emanated from La France de '89. As I gathered a flower to make this note I was attracted by a lovely new wichuraiana Rose named Joseph Lamy, which would make a delightful companion to Lady Waterlow by growing it as a pillar Rose interspersed over a bed of bush plants of the latter. The tinting of Joseph Lamy is of the most delicate character, an exquisite pale carnation pink on an ivory white ground; in fact, the flower does not look unlike a Tree Carnation. There is a delicate fragrance in this climber, but Lady Waterlow is devoid of scent.

ROSE LA FRANCE DE '89.

THE huge and brilliant rosy red blooms of this grand Rose are shown up to great perfection upon a light-coloured wall. It is really a beautiful variety for this purpose, few red Roses surpassing it, for we have not only brilliancy of colour but size and quality of bloom also. On a bush it somewhat droops, so that the effect is lost; but grown against a wall or as a standard it is a beauty. Many individuals complain that the so-called climbing Roses possess but small flowers, but here we have a variety, though not recognised as a climber, that will grow to quite a good height and yield a splendid show of its Pæony-like flowers. I am persuaded we do not use this type of Rose enough upon walls and fences. They are superior to the many so-called climbers. Even some of the gorgeous Hybrid Perpetuals are grand for this purpose. If extraordinary vigour is desired, this can be attained by planting freer growers; but for ordinary 7-feet to 8-feet walls I prefer the type of La France de '89 and Mme. Isaac Pereire, where we not only obtain large flowers but a continuation of them also. Even Roses such as Baroness Rothschild, that are looked upon as being stumpy growers in bush form, will, if planted against a wall and practically left unpruned, attain to quite large dimensions. Then there are the delightful Teas of the Lady Roberts type, that never fail to charm, and which always provide us with a wealth of their beautiful flowers. P.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Large weeds on lawns must be destroyed at once; it is useless leaving them until the winter or spring time before dealing with them, as they increase in size and destroy more grass around them. If they are got rid of now, the grass will grow over the bare spaces, and by the month of May next there will be no marks left by the weeds. I am referring to such weeds as Dandelions, Thistles, Plantains and Docks. Procure some oil of vitriol in a stone or strong bottle, tie a piece of string round the neck of it with which to carry it, and wear gloves, as the vitriol burns and is poisonous. With the aid of a piece of ordinary stick notched at one end to hold the liquid allow one or two drops of the latter to fall right into the centre or heart of each weed. Weeds are more tender now than in winter-time, and so two drops of vitriol will be sufficient to kill the largest on the lawn. Many kinds of border plants make a lot of growth at this season, and if at all neglected they soon look very untidy. More work will be necessary at this season in connexion with the staking of late growths, the removal of weeds by hand and the clearing away of fading foliage, than at any previous time during the year.

Vegetable Garden.—Strong plants of Cabbages must now be put out in the open quarters where they are to remain until they are used next spring. There are few better positions than those that have been occupied by Potatoes. The only preparation the soil needs is its levelling and a peck of soot per rod being forked into the surface to a depth of about 4 inches. The dwarf, compact-growing varieties should be planted in rows 15 inches apart and 12 inches from plant to plant in the rows. For larger varieties allow a space of 18 inches between the rows and the plants in the latter. Do not put out any blind or club-rooted specimens. After rains the earthing soil often slips down in places from the rows of Celery. In replacing the fallen soil care must be taken to make a flat foundation for it, and not place it on the sloping surface, else it will be liable to fall down again. Tomato plants will need close attention now. Only very early varieties which were strong when first planted out will bear satisfactorily in the open air this year, and as much aid as possible must be given them. This will constitute the removal of all side shoots while the latter are quite small, and the topping of every plant above a truss of fruits which have attained a size equal to those of Barcelona Nuts. All fruits that are smaller will not mature.

Fruit Garden.—Autumn-fruiting Raspberries are always welcome; the berries may not be as sweet as the summer-ripened ones, but they fill a big gap and prolong the season of bush fruits very much. At the present time we may expect strong winds from the south and south-west, and so timely support must be afforded the young canes. The old canes of the summer-fruiting varieties must be cut out without delay. They are, in themselves, quite useless now, but if left uncut they will rob the young canes of sunlight and air, and it is highly essential that they be fully exposed, so as to become well matured before the leaves fall off. A commencement may be made in the work of cutting out the old wood from Black Currant bushes. The younger wood left will greatly benefit by the early removal of the old.

Greenhouse and Frames.—Zonal Pelargoniums intended for autumn and winter flowering must be placed in a cool, airy greenhouse at once. If left outside any longer, the plants will not continue to progress satisfactorily, as the new wood will not be as firm as it ought to be. In the drier atmosphere and warmer temperature of the greenhouse it will. Old plants of Isolepis gracilis may now be divided and repotted in a light, sandy compost and then placed in a damp part of the structure. Repotting now is better than leaving the plants until next spring, as so much grass would, in that case, turn yellow. Plants now put in cold frames must be placed on boards instead of ashes. In all frames less moisture will be needed, and all watering must be done in the early part of the day. B.

1.—HONEYSUCKLE SHOOT ON THE LEFT SUITABLE FOR MAKING A CUTTING; ON THE RIGHT THE CUTTING IS SHOWN READY FOR PLANTING.

CULTURE AND PROPAGATION OF THE HONEYSUCKLE.

PLANTS of a climbing and twining character have a special value in all gardens where real beauty is desired; but I doubt whether there is any more popular subject than the beautiful Honeysuckle, that yields its quaint and fascinating blossoms in the greatest freedom when planted in a proper manner. There are several varieties of the European Woodbine or Honeysuckle (Lonicera Periclymenum), and there are a number of other species, each of which has a charm peculiarly its own; but in the present instance I desire to call attention to the European Woodbine. Of the last-mentioned there is the Early Dutch, that comes into flower earlier in the year than the common variety, and its blossoms are larger, of a creamy colour and deliciously fragrant. This is largely grown by nurserymen and is known by the botanical name of L. Periclymenum belgica. The Late Dutch (L. P. serotinum) is equally as good as the early variety, and evolves reddish flowers in the late summer and early autumn.

The climbing species revel in good, rich soil, and the evergreen types should preferably be planted against walls and fences having a south or west aspect. The deciduous types appear to do well in any aspect, and are especially adapted for covering porches, arbours, trellises, fences and walls. Should the soil of any garden be poor in character, add good, partially decayed manure quite freely to enrich it. The periods of planting are during October or November and in March or April. I prefer to plant in the

2.—CUTTINGS PLANTED IN A SHELTERED CORNER IN THE OUTDOOR GARDEN.

autumn in country gardens and in the spring in town and suburban gardens. As soon as the Honeysuckles are planted, shoots of the previous season's growth should be shortened back to within 1 inch or 2 inches of their base; this will have the effect of causing them to break into vigorous growth, which will not, however, flower very satisfactorily in the succeeding season; but successive seasons will reap the benefit of this somewhat drastic treatment.

At the present, however, we are chiefly concerned in the propagation of the Honeysuckle, and this may be done either by the insertion of cuttings or by layering shoots that are making free growth. Cuttings of the Honeysuckle should be made from the firm shoots of the present year's growth, and ought to be about 8 inches in length. It is possible to make several cuttings from one long growth, but I prefer to make one from a shoot of lesser length. In Fig. 1 the kind of shoot from which good cuttings are made is shown, and a cutting properly prepared ready for insertion. The shoot on the left of the picture gives a good indication of its firm character, and to prepare it the berried top has been severed, the shoot cut through immediately below a joint and the lower leaves removed, finally representing the cutting properly prepared as shown on the right of the illustration. When the roots are detached with a "heel," they are less likely to fail during the rooting process, and for this reason I prefer to utilise them to ordinary cuttings.

.—A SUITABLE SHOOT OF HONEYSUCKLE FOR LAYERING.

The cuttings should be inserted during the tumn months. Some prefer October and ovember, choosing a sheltered corner of the rden outdoors for this operation. I prefer a ld frame for the purpose. The cuttings are serted 4 inches deep in sandy soil in a cold ame, observing a distance between the cuttings some 4 inches, more or less, and fully this stance should be observed between the rows. rinkle the surface soil with sand before anting. When completed the bed outdoors the cold frame should be represented as shown Fig. 2.

Layering the shoots may be done during the mmer months and at the present period. This ethod of increasing the Honeysuckle is an tremely simple one. Select shoots of good ngth, such as the one represented in Fig. 3. oots of a shorter character cannot be dealt with tisfactorily, as it is necessary to bend down e shoot to the earth, to make a slight incision it just below a joint, and then to bury this rtion of the shoot below the surface soil, at e same time pegging this down as is commonly ne when layering the Carnation. Fig. 4 rtrays a layered shoot when the operation is mpleted.

Shoots layered in the summer may be vered in the succeeding autumn; but those ing this work at the present time must of cessity sever their layered shoots much ter. D. B. C.

POTTING CINERARIAS AND CALCEOLARIAS.

HE final potting of these plants must not be t off too late in the season. The Cinerarias pecially deteriorate if the plants are allowed to t potbound, flower-stems show prematurely, d then no amount of care will prevent poor wers developing on weakly growths.

The grower must examine the roots in the pots which the plants are now growing, and if enty of roots are found forming a network on e ball of soil, it will be quite time to do the potting. The first dealt with should be the nerarias, as these form roots more rapidly than e Calceolarias.

The Soil.—This must be good and quite rous; fibrous loam two parts, leaf-soil one rt, well-rotted manure and sand one part. his will do for the Cinerarias. Rather more am in proportion must be used for the lceolarias. If the plants are finally placed 5-inch pots, a lot of feeding will be re-ired later on; if placed in 6-inch pots, less eding will be necessary; but I advise culti-tors to use 6-inch and 7-inch pots for both nds of plants. The soil must not be pressed wn too firmly. Use a cool frame for both the nerarias and Calceolarias; the latter will rive best in a cold frame facing the north. rotection from frost must be given, and it will necessary to move the plants to a greenhouse out the beginning of November. I like to see drops of dew on the leaves of the Calceolarias in the early morning in autumn, when the lights can be well tilted during the night; and later, when the plants are necessarily shut off from exposure to rain or dew, I like to see drops of moisture on the leaves. This condition will obtain if the cultivator keeps the plants on a bed of moist ashes.

INSECT PESTS IN AUTUMN.

DURING the latter part of summer and the early days of autumn gardeners have to contend with the attacks of many insect pests. Dahlias, Chrysanthemums, Nasturtiums, Endive and Lettuces are all damaged, more or less, at this season by the enemy. In order to keep the precious plants quite safe from serious attacks, a great amount of labour is necessary, and it is very important that that labour should be well directed.

Earwigs are, perhaps, the most difficult to deal with, because they are so cunning. They lodge in safe places during the day and poach in the night-time; therefore we must set traps for them. The old-fashioned plan of catching them in hollow Bean-stalks is still one of the best. The stems are cut into pieces about 1 foot long and then fixed among the foliage of the plants; I here refer chiefly to that of Dahlias and Chrysanthemums. Very early each morning the stems are examined and the insects in them are shaken into a pailful of water and, in due course, destroyed. Where canes are used for stakes the earwigs often take refuge in the hollows near the top, so these also should be examined. Blooms of early Chrysanthemums and some of the fading Dahlia flowers may be placed in the branches of these plants; earwigs will attack them, and if the cultivator will carefully examine the blooms in the evening about ten o'clock, he will probably be able to destroy many insects.

Caterpillars eat away the young, unfolding petals of Chrysanthemums, and these pests must be looked for at night and under the leaves in the daytime. Sometimes one monster caterpillar will eat away a portion of many buds. Aphides also must be reckoned with. Do not allow any to get established in the young, unfolding flowers, else they will soon spoil the latter. Very small caterpillars do a lot of damage to Nasturtium plants at this season. Where there are only a few at work, hand-picking may prove successful; but if there are many, scatter a very fine shower of dust dry powdered lime on the plants and immediately afterwards syringe or gently shake them. If much lime is used do not syringe, else the leaves will be burned. More powder may be scattered on the caterpillars fallen to the ground. Slugs will greatly damage Endive and young Lettuce plants now unless they are prevented. Dry lime judiciously scattered under the plants will do much good; but hand-picking must be the rule where plants are growing in frames. SHAMROCK.

4.—A SHOOT OF HONEYSUCKLE AFTER LAYERING HAS BEEN COMPLETED.

THE TOWN GARDEN.

SWEET PEAS.—The plants are now making a last effort to produce flowers and seed-pods. The latter must not be allowed to form, and to this end it will be necessary to pick off every faded flower and not permit seed-pods to swell. The presence of the latter prevents a free growth of young flower-buds, and, of course, that means few flowers after they have once formed. The town gardener is generally very fond of his Sweet Peas and likes to see them growing on the plants; but to make the best use of the blossoms they must be gathered regularly at least three times each week. Daily gatherings would be better still, as the more the flowers are cut, or the more regularly those approaching full development are gathered, the more persistently will the plants produce others. Many of our leading exhibitors cut off every flower showing colour about a fortnight before the date of some particular show. The strength of the plants then goes to the production of those extra fine blossoms that we see staged at our large exhibitions. Thus the town gardener must follow such an example if he would enjoy plenty of Sweet Pea blossom indoors and outside as well.

FERNS.—A few plants in pots in windows and glass porches facing north, north-west and north-east, make them look very cosy and give a furnished appearance. The Maidenhair and similar Ferns are the most suitable for growing in such positions. No attempt must be made to repot the plants at the present time. The end of next February will be a more suitable date for that work, but plants which have filled the pots with a mass of fibrous roots should be assisted, and weak applications of liquid manure will do much good. Half a pint of the liquid manure to three pints of clear water will constitute a suitable dose. Twice each week the manure-water may be given, and always after a watering with clear water. A pinch of some approved concentrated manure will also prove very beneficial. Then there are the hardy varieties growing in pots, tubs and boxes in the open air, and they do very well indeed in yards and in partially shaded places; but here, again, we must strengthen the plants. In the case of the outdoor Ferns very little improvement may be seen in them this autumn, but the stimulating food applied will have its good effect on the young fronds which will be the first to grow next year. We must produce stronger, not weaker, fronds every year.

PINKS.—Clumps and edgings formed with these plants should now be examined. In many instances the older specimens have become rather ragged, and a simple trimming of the outer grass will not greatly improve their appearance. When once these plants have got out of hand, as it were, they must be dealt with in earnest. The best way is to propagate them by inserting cuttings—pipings they are often called—or they may be improved by lifting, dividing and re-planting. The first way is the best, but the time of year is rather too far advanced for an amateur to successfully carry out the work. He may, however, be quite successful in lifting the old plants, neatly pulling them into small parts and replanting the best with roots attached. The long-stemmed portions must be thrown away. If it is absolutely necessary that these plants must be grown in the same position again, the soil should be deeply dug and well enriched with rotted manure; if of a clayey nature, add some gritty soil and leaf-mould, too. Make the ground firm by treading it when dry if it be of a sandy nature, and put in the younger parts of the old plants again. While this work is being done the cultivator must take care not to allow the plants lifted to get dry. Place them in the meantime in a cool position and water them overhead. After they are replanted give more water, and then frequently if the weather is dry; daily syringings will be helpful, too. AVON.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

SHRUBS AND TREES.—Although too early to commence planting, it is none too early to begin to make preparations, especially where planting is to be done on a large scale, so that there shall be no delay when the time does arrive. All land intended for shrubs and trees will need to be thoroughly trenched, and manure added if required, so that the roots may have ample room to travel and food near the surface to keep the plants healthy and robust. In some situations, where the soil is of a wet, clayey nature, draining may have to be done. When planting shrubberies there should be a plan of all the more choice and important plants it is intended to leave permanently, filling up with less valuable shrubs, to be removed as the choice kinds require more room to develop.

Lawns.—Keep these constantly mown to give a neat appearance, and cut the grass once more in the wild garden, so that the leaves can be more easily swept or raked up in autumn. All bulbs intended for early spring flowering should be planted as soon as they arrive. See that the soil is in good condition and the bulbs planted at the right depth.

Irises.—The tuberous varieties are numerous, and among them are some very beautiful colours; they are perfectly hardy, and if suitably arranged make a splendid effect. Plant them about 3 inches deep in a rather rich, light soil and they will give no further trouble.

FRUIT GARDEN.

Hardy Fruits.—Notes, if not already taken, should be made of all useless varieties to be removed this coming planting-time and a selection made of different sorts which it is intended to grow in their stead; only those of the best and those that will give a lengthy supply should be selected. Those intending to plant will do well to pay a visit to some good fruit nursery during the time the fruits are in season and make a selection of suitable varieties.

Peaches and Nectarines.—Go over the trees once more and remove any new soft growth. Syringe daily in fine weather those trees where the fruits are not too advanced, also where the fruits have been gathered. See that the late sorts do not suffer from dryness at the roots, and feed well if the crop is a heavy one. Remove the nets from all fruit trees and bushes as fast as the fruit is cleared, and if not required for further protection tie them up when perfectly dry and store them in a dry place.

KITCHEN GARDEN.

Spring Cabbages.—Plant out as soon as they are ready a good breadth of Cabbage plants for spring supplies. Let the land be moderately firm and well enriched with decayed manure. Ellam's and the smaller type may be planted rather closer than the larger-hearted varieties. Plant firmly, and should the weather prove dry, give them a good soaking with water to settle the soil and to give the plants a good start. Those who grow a few Reds for pickling should plant at this season.

Onions.—These will soon be ready for pulling. Keep the varieties separate and see that the bulbs are frequently turned over till they become thoroughly ripe for storing. The bulbs winter well loose in any dry, airy shed, or they may be roped and hung up to the roofs. Cut and dry all kinds of herbs required in winter, such as Mint, Tarragon, Sage, Thyme, Basil and Marjoram.

H. MARKHAM.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

FLOWERING PLANTS.

BULBS.—Catalogues being now at hand, orders should be despatched at once and the bulbs or roots when received be potted or boxed to ensure a supply of flowers when the present abundance has become a pleasant memory of the past.

Roman Hyacinths are perhaps the most easily grown, and, withal, the most satisfactory of any comprising the long and varied list of winter-flowering bulbous plants. Potted at once, it is possible to have these in bloom by the middle of November by affording them a slight warmth at, or just before, this date. The size of pots used is unimportant, but those 5 inches or 6 inches in diameter are very suitable for placing in vases or window-boxes. Crock these in the usual way and three parts fill them with good sandy soil. Make firm, and upon this surface place the bulbs nearly close if decorative specimens are required; but if for cutting only, more room may be given or shallow boxes used instead of pots, when finer spikes of blooms will probably be attained. Fill the spaces between the bulbs with soil, leaving the crowns visible and sufficient depth inside the rims of the pots to facilitate watering. Place the pots when finished upon a level surface out of doors and cover to the depth of a few inches with coal-ashes, which will prevent rapid evaporation and, what is of more importance, will keep the bulbs in place as roots form and until these get a hold of the soil.

Tulips.—The Duc Van Thol section, in several distinct colours, is best for early use, and similar treatment to that described for Hyacinths will answer equally well for these, except that the bulbs may be inserted rather more deeply in the soil.

Lachenalias.—These are excellent subjects for hanging baskets as well as for pot plants. For the former line the interior with moss to retain the soil, placing the bulbs all around, tier above tier, as the latter is filled in. From six to twelve bulbs are sufficient for 6-inch pots, and a compost of loam, leaf-mould and dry cow-manure is suitable. L. pendula, L. tricolor and L. Nelsonii are the best of this somewhat small genus.

FLOWER GARDEN.

Propagating.—The time is near at hand when this must again be undertaken, though one is often reluctant to disturb the bedding arrangement when at its best for the purpose; but if carefully carried out and only such shoots as show an undue lead are first taken, an improvement rather than a defect may ensue.

Geraniums.—These require first attention, and, being full-grown at present, no difficulty should be experienced in getting the necessary number of cuttings. Those that have attained a certain amount of solidity are best, as if very sappy, damping rather than the emission of roots is likely to follow. Short-jointed shoots are preferable, so that two joints may be inserted in the soil, which should be of a friable nature, the better to counteract the effects of damp in winter. Pots, boxes or a bed prepared under glass all answer. In the latter case the plants would be potted when well rooted.

ROCK AND ALPINE GARDEN.

As many plants produce seed freely, and for some reason this germinates more kindly where it falls around the parent plants than under more artificial conditions, a great number of plantlets may often be obtained without trouble. These if carefully raised and transplanted to a prepared bed, or some of the more fastidious in this respect to pots or boxes, and afforded shade and close attention in regard to moisture for a few days, would in all probability become well established before winter and make excellent material for permanent planting in due course.

JAMES DAY.
(Gardener to Sir Malcolm M'Eacharn.)
Galloway House, Garlieston, Wigtownshire.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Exhibiting hardy herbaceous flowers (*A. K.*).—The Lobelia is generally admissible, and we should not disqualify it. The Montbretia and Lilium may both be shown in a collection of hardy herbaceous plants, provided bulbous-rooted sorts are not excluded by schedule regulations on the one hand, and provided also that you exhibit of the latter those species or varieties that are reliably hardy generally. You do not say what species or varieties you contemplate showing, and if you exhibit greenhouse-grown examples of certain plants, the judges may decide that you are not acting within the spirit, even though you may be acting within the letter, of the schedule. Should this occur, and should another exhibitor who is running you very close conform to both the letter and the spirit of the schedule, the judges may decide against you.

Christmas Roses (*M. Murray Wilson*).—The Christmas Rose (Helleborus niger) is a hardy perennial herb of about 1 foot high, and is not a bulbous-rooted subject at all. The best time for planting this is in September, and the soil should be deeply dug and, if wet or ill-drained, old mortar rubbish or road sweepings should be added freely. Leaf-mould and old manure should be freely incorporated with the soil. The plants are very deep-rooting, and a depth of not less than 2½ feet of soil should be prepared for them. It would be better to plant a bed or group, so that in winter a frame-light could be placed over them to keep the flowers pure and clean. These plants require time to become established, and any flowers that appeared this year would not be of a representative character. Plants may be obtained from any of the nurserymen who make a speciality of hardy plants.

TREES AND SHRUBS.

Pruning a Holly hedge (*H. C. R.*).—You may cut your Holly hedge at once if rough, but if of moderately close growth it can be left until spring. There is really very little to choose between the times, except that if cut now mutilated leaves will be seen until new ones appear next year, while if cut in April new leaves soon hide the damaged ones. If the bottom of your hedge is thin, it will be as well to plant a few small plants between the existing ones at once. It is sometimes a difficult matter to get the bottom of a Holly hedge to thicken up well, but the introduction of a few small, bushy plants usually suffices.

Elm shoots for inspection (*W. G.*).—There is nothing to be seen on the Elm branches you send to account for the leaves falling. The probability is that there is something wrong with some other parts of the trees, roots or trunk. Excessive flowering and fruiting sometimes affects the foliage. You may have had a bad attack of insects, either thrips or red spider; none could be found on the leaves, but marks were visible which might have been caused by insects, sunburn or premature decay through being cut. It would be advisable to carefully examine the trunks and collars at the ground line and a few inches below to see whether any fungoid agency is at work.

aucarias dying (*Charles Wright*).—It is sible to say what has caused the branches of your arias to die without examining the trees. Branches ently die out in a natural manner, and this may be se. On the other hand, something may be wrong he roots or the lower part of the stem between the and roots. The dead branches ought to be cut out he wounds tarred over; it is, however, impossible to e further treatment without knowing more of the

THE GREENHOUSE.

lacs to flower at Christmas (*A.*).—Lilacs to flower at Christmas and ards are not grown under glass, it being very ssary to grow them out of doors under the ence of air and sunshine, in order to induce to form plenty of flower-buds. The Lilac with at Christmas is generally the produce tarded plants—that is to say, bushes well with flower-buds, which in their normal e out of doors would have developed during previous spring; but they have been kept in ozen state in refrigerators, and are con- ently ready to start away at once in a more al temperature. To flower from the end of uary onwards, neat little bushes grown cially for the purpose can be purchased in autumn. They are for the most part grown pots plunged out of doors. This ensures a pact mass of roots and prevents too vigorous rowth. With such plants all that is neces- is to pot and take them into the forcing- se a month or so before they are required be in bloom. If you purpose growing cs yourself, the great point is to see that are in a good, open situation, are kept e clear of suckers, while they must not be wed to become dry. The most popular kinds forcing are Marie Legraye, single white; rles X., single lilac; Mme. Casimir-Perier, my white, double; Mme. Lemoine, white, ble; and the smaller-growing Persian Lilac.

egonias attacked by mite (*M. L.*).—Dip the ts at frequent intervals in a wash made by taking a lful of soft soap and kneading into it some flowers of hur, dissolving the mixture in one and a-half gallons ater. Frequent dipping is necessary, as this wash does affect the eggs, and the young should be killed as they natched out.

eating a greenhouse (*G. E. M.*).—For a e of the dimensions given and sheltered as yours is, w and return of 4-inch piping carried along the front for 5 feet at the end will be sufficient to keep up a nhouse temperature during the winter. There should o difficulty in maintaining a minimum temperature of which will be sufficient for greenhouse plants in eral.

ROSE GARDEN.

ome good crimson Roses (*A. ley*).—The varieties you name are all very d of their colour and hold up their blooms ly well. We think, perhaps, General Baron ge might be replaced, as it is so much addicted mildew. You should certainly plant Hugh kson. It is a strong grower, but a really gnificent Rose and the best crimson we have. few other grand crimsons and scarlets that e erect stems are Liberty, Richmond, General carthur, Duke of Wellington, Earl of Pem- ke, Duke of Connaught, Louis van Houtte, her Holmes, Duchess of Bedford, Comman- t Felix Faure, Alfred K. Williams, Charles febvre and Laurent Carle. The latter is a nd Rose, not exactly crimson, but a very lliant rose crimson and of fine form.

ose Dorothy Perkins refusing to bloom (*W. M.*).—We have never experienced an instance of the you name. Even bushes planted in April this year e flowered beautifully. Are you sure the Rose is othy Perkins? It sounds uncommonly as though you e a plant of Aglaia instead of the true Dorothy, as this e is very tardy in blooming. If you have any doubt, us a piece of growth and we will tell you whether it or not.

aths for small Rose garden (*Hybrid Tea*). t have the paths pegged out; then remove turf and to a depth of about 4 inches. A layer of chalk, gravel linkers about 3 inches deep would make a good base assist drainage. The cost of these would vary, but could soon ascertain how far a load would reach. e the material well rolled; then procure bricks known "hards." Lay these flat and fill in the interstices with sand or cement. About four bricks would go to the square foot and would cost about 2d., exclusive of sand or cement.

Stocks for various Roses (*Walsall*).—Gottfried Keller and the Lyon Rose do well on seedling Briar, but we prefer Briar cutting. Tausendschön also grows best on either of these stocks; but the Manetti is best for Hiawatha and Dorothy Perkins. You should endeavour to put in some cuttings of the last three sorts, as they are far more satisfactory than budded plants. As to removing bulbs, something depends upon what they are. We should advise you to heel them in some sandy compost, or, better still, plant them in some boxes which could be removed intact.

MISCELLANEOUS.

Use of ammonia water (*J. Watt*).—Plants are unable to make use of ammonia unless it is combined with an acid, as in sulphate of ammonia. At times ammoniacal fumes even prove detrimental to plant-life. It would, therefore, be very inadvisable to use even very dilute ammonia liquor from the gas-works in watering plants.

Sweet Peas in a cold greenhouse (*M. H.*). Varieties that would suit you as regards colour are Earl Spencer, Kitty Clive, Edrom Beauty, Henry Eckford and Helen Lewis; but you will have to shade to keep the colour. St George is doubtful, because it is a poor grower and a shy bloomer in many places. There is nothing quite like Lady Grizel Hamilton, but you ought to try Masterpiece. You omitted to send your address.

Making a lawn (*J. H.*).—You would do best by turfing your tennis lawn if you wish to use it next spring, for if you sow grass seeds in September the grass will not get strong enough for a lot of running about on by spring. If the ground could be left for a year you could sow it with advantage; but as you wish to use it so early you had better provide good turf. The earlier you get it down the better, providing you are in a position to keep it well watered in case of a spell of dry weather setting in. There is really no reason why you should wait until September if the ground is vacant.

Obtaining employment at Kew (*M. H.*).—To obtain employment at Kew men must be between the ages of nineteen and twenty-four, and must have had at least four years' experience in good gardens. The engagement terminates at the end of two years, but a man can leave earlier if he wishes. The wages are one guinea per week, with extra pay for Sunday duty. Courses of lectures are given on five different subjects, the courses being spread over the two years. It is necessary that a man should have had at least a good elementary school education, and if he has had the advantage of higher education so much the better. With all, he must be a good workman and have laid the foundation towards making a good gardener. Application forms, with full particulars of employment, can be obtained from the curator, Royal Gardens, Kew. For particulars of employment in Hampton Court Gardens, apply to the superintendent.

Renovating a lawn (*A. J.*).—There is a book on lawns issued by Messrs. Sutton and Sons, who are great authorities on this subject, which may be obtained from Messrs. Sutton, price 1s. 2d., post free. With respect to the remaking of your lawn, you will do well to dress it heavily with fresh-slaked lime and fresh soot at once. This will soon wash in and help to kill much of the moss. A couple of weeks later tear out as much of the moss as you can with a sharp-toothed iron rake and remove it. This will give the grass a chance to improve a little this season. But if you have the whole lawn forked over, do so 6 inches deep, and throw out, dry and burn all the grass and roots. Then give the surface a dressing of 4oz. per square yard of superphosphate of lime and kainit, very finely crushed, in equal quantities, and 1oz. of sulphate of ammonia. Well scratch this in with a steel fork; then, having well levelled the soil and made it firm, sow grass seeds. Do this early in October. The seedsman will tell you as to quantities.

Names of fruit.—*Subscriber.*—*a*, Waltham Abbey Seedling; *b*, Yorkshire Beauty; *c*, Lady Sudeley; *d*, Stamford Pippin. The other varieties you mention we do not know; the names must be local.

Names of plants.—*Regular Subscriber.*—Lychnis haageana. The Pea is a form of P. sativum with uncommon purple pods.——*G. H.*—The Carnations are evidently seedlings, either taken direct from the seedling plants or from layers propagated from seedlings. There is no disease on the leaves; it is merely caused by sudden climatic changes.——*E. L.*—Buddleia variabilis magnifica. ——*Rhagatt.*—Anthemis tinctoria.——*C. J. E.*—Rose Perle des Jardins. The other plant was very shrivelled, but looked like Tiarella cordifolia.——*E. P. N. Howes.*—1, Lonicera involucrata; 2, Spiræa japonica Anthony Waterer; 3, Olearia Haastii; 4, Spiræa canescens.——*S. S.*—1, Not recognised; 2, Pride of Penshurst; 3, Duchess of Fife; 4, Mrs. Flight; 5, Raby Castle; 6, a form of the Old Clove; 7, Asphodel; 8, Isinglass; 9, Old Clove.——*B. S.*—1, Pelargonium peltatum variety; 2, Begonia metallica; 3, cannot name without flowers; 4, Cassia corymbosa; 5, Stachys lanata. A true hybrid is the result of crossing two species, not varieties.——*J. C. K.*—1, Cimicifuga racemosa; 2, Rodgersia podophylla; 3, Epilobium hirsutum. ——*Reader, Watford.*—1, Ailanthus glandulosus; 2, Spiræa Aitchisoni; 3, Deutzia crenata; 4, Cercis Siliquastrum (Judas Tree). The Apple was not mature enough to name; send again later.——*A. G. W.*—The common Trumpet Flower (Tecoma radicans), also known as Bignonia radicans.—*G. J. Padbury.*—Heuchera sanguinea and Asparagus Sprengeri. The latter can be increased by division in spring.—*V. de T.*—Ascepias cornuta.

SOCIETIES.

READING HORTICULTURAL SOCIETY.

THE annual exhibition arranged in connexion with the above society was held in the Forbury Gardens, Reading, on the 25th ult., when a splendid display of flowers, fruits and vegetables was made. Unfortunately, the weather was none too good, but a large number of visitors attended.

OPEN TO ALL.

For a group of plants arranged for effect in a given space, two competitors entered, first honours going to Lady Cooke, East Thorpe, Reading (gardener, Mr. J. Wynn), who was the first-prize winner last year. This was a splendid oblong group, and contained, among other subjects, well-grown Liliums, Cannas, Gloxinias, Campanula pyramidalis and Streptocarpus. Second prize fell to Mrs. Bland Garland, Lower Redlands, Reading (gardener, Mr. Wilson). This group, although it contained some good material, lacked the brightness and finish of the first-prize exhibit. We noticed several good Coleus and Begonias among the plants used.

In the class for six Fuchsias, distinct, first prize was won by J. Friedlander, Esq., Whiteknights Park, Reading (gardener, Mr. T. Bright). The plants shown here were remarkable pyramids some 9 feet or 10 feet high and well covered with flowers from top to bottom. Second honours went to Miss K. Ratcliffe, Westfield, Reading (gardener, Mr. H. Booker). The plants here were smaller but well-flowered specimens. Third prize was awarded to Mr. J. Read, Reading.

For six double-flowered Zonal Pelargoniums competition was good, first prize being won by Lady Cooke with splendidly flowered specimens; S. B. Joel, Esq., Maiden Erleigh, Reading (gardener, Mr. F. Johnson), was a good second; and third prize went to Miss K. Ratcliffe.

In a similar class for tuberous Begonias there were only two entries, the first and second prizes being won respectively by W. Pole Routh, Esq., Oakfield, Reading (gardener, Mr. H. House), and Miss C. Russell, Erleigh Road, Reading (gardener, Mr. W. Gregory), each exhibitor staging well-flowered plants.

For twenty-four Dahlias, show or fancy, distinct, there were three entries, first prize being won by Mr. G. Humphries, Langley Nurseries, Chippenham, with a very fine lot of blooms; Miss P. McKenzie, A. Ocock, Standard and John Forbes were four that were extra good. Mr. J. Walker, 8, High Street, Thame, was a close second, his flowers being rather smaller than those of the first-prize exhibit.

In a similar class for twelve blooms there were three entries, Messrs. J. Cheal and Sons, Crawley, being placed first, their blooms of Tasmania, A. Rawlings and Warrior being very good indeed. B. C. Shepherd, Esq., Knowle Hall, Bridgwater (gardener, Mr. J. Stuckey), was placed second.

For twelve bunches of single Dahlias, the first and second prizes were won respectively by Messrs. J. Cheal and Sons and Mr. J. Walker, High Street, Thame, these being the only competitors. Both staged blooms of superb quality.

Four competitors entered the class for thirty-six Cactus Dahlias, twelve varieties, three blooms of each, first honours, including the silver medal, being secured by Mr. G. Humphries, Chippenham, with a superb lot of well-developed blooms. Dr. G. G. Grey, Helium and J. H. Jackson were sorts that called for special mention. Second and third prizes were won respectively by Messrs. J. Cheal and Sons and Mr. J. Walker.

For twelve bunches of Pompon Dahlias, distinct, ten blooms of each, Messrs. J. Cheal and Sons were first among three exhibitors, their flowers, especially the varieties Whisper and Nerissa, being of very high quality indeed. Mr. J. Walker and Mr. G. Humphries followed in the order named.

In the class for twelve Roses, distinct, there were five entries, J. B. Fortescue, Esq., Dropmore, Maidenhead (gardener, Mr. C. Page), being first with a good dozen, Hugh Dickson and Mons. Joseph Hill being the two best. Mr. G. Humphries, Chippenham, was second with mostly Hybrid Perpetual varieties. Third prize went to Mr. T. Rigg, Caversham.

For twelve Gladioli, single spikes, there were only two entries, first and second prizes being won respectively by Mr. Fred Eames, Frome, and Mr. J. Walker, Thame, both staging very clean flowers.

The Rev. C. Turner, Woburn Park, Weybridge (gardener, Mr. A. Basill), was first for nine bunches of Sweet Peas, distinct, staging good blooms of Helen Lewis, Frank Dolby and Mrs. Henry Bell.

For twelve vases of cut flowers, distinct, first honours were won by J. B. Fortescue, Esq., Dropmore, Maidenhead (gardener, Mr. Charles Page), who had splendid Phloxes, Roses, Gladioli and Buddleias. S. B. Joel, Esq., Maiden Erleigh, Reading (gardener, Mr. F. Johnson), was second, and Mr. G. Humphries, Chippenham, third.

TRADE EXCLUDED.

For four stove or greenhouse plants first prize was won by G. J. Pievens, Esq., Woolton Hill, Newbury (gardener, Mr. F. Lock), a splendid specimen of Clerodendron balfourianum being included in this exhibit. Second prize went to Mrs. Bland Garland, Reading (gardener, Mr. H. Wilson). In the classes for Ferns and Fuchsias in this section the exhibits were not of a very high order.

For twelve Cactus Dahlias, distinct, there were three entries, first prize being well won by L. McKenna, Esq., Twyford (gardener, Mr. A. Backshall), for some very good flowers indeed. Second prize went to J. N. Stillwell, Esq., Yateley, Camberley (gardener, Mr. W. H. Chapman), and Mr. F. Hall, Chiddesden, Basingstoke, was third.

In a class for twenty-seven Cactus Dahlias there were three entries, L. McKenna, Esq , being again the champion with a grand lot of flowers. J. P. Stillwell, Esq., was second and H. W. Dunlop, Esq , Earley, third. The first-prize collection here was by far the best.

For six Cactus Dahlias the prizes were won by L. McKenna, Esq., Mr. F. Hall and J. P. Stillwell, Esq., in the order named.

Four exhibitors entered the class for six bunches of single Dahlias, first honours going to J. N. Stillwell, Esq., for a very pretty lot; Mr. C. Walker was second with smaller blooms. J. N. Stillwell, Esq., was also first in a similar class for Pompons.

The competition for six vases of Sweet Peas, distinct, was very good indeed, G. W. Tyser, Esq., Oakfield, Mortimer (gardener, Mr. S. W. Sherlock), being first with very fresh flowers, Evelyn Hemus being particularly good. Second and third prizes were won respectively by Mr. E. D. Marshall, Reading, and G. J. Plevens, Esq., Woolton Hill, Newbury.

The first of Messrs. Sutton and Son's prizes, offered for nine bunches of Sweet Peas, was won by Mr. E. Marshall, Reading, H. M. Robertson, Esq., Farnham, being second. The Sweet Peas as a whole were not good.

The challenge cup, medal and cash prize offered for a group of plants in Class 33, open to subscribers where not more than two gardeners are employed, was won by W. Pole Routh, Esq., Oakfield, Reading (gardener, Mr. H. House). This was an excellent group and contained some good specimens of Lilium auratum, Gloxinias and Humeas. Miss K. Ratcliffe was the only other competitor in this class, being awarded second prize for a moderately good group.

FRUIT AND VEGETABLES.—OPEN TO ALL.

For six dishes of fruit, distinct kinds, except Grapes, there were only two entries, first prize being well won by Colonel H. Walnole, Heckfield Place, Winchfield, Hants (gardener, Mr. J. Gardner). The Grapes, Peaches and Apricots shown here were very good indeed, the black Grapes being well finished. G. W. Tyser, Esq., Oakfield, Mortimer (gardener, Mr. S. W. Sherlock), was second, this exhibit being a long way behind the first.

For three bunches of Black Hamburgh Grapes there were seven entries, first prize being awarded to G. W. Tyser, Esq., whose bunches were of good size, but the berries were small owing to their being left too crowded. Second prize went to W. H. Myers, Esq., Swanmore House, Bishop's Waltham (gardener, Mr. G. Ellwood), these being large bunches of good-sized berries, but not quite sufficiently well coloured. J. Friedlander, Esq., Reading (gardener, Mr. F. Bright), was third.

In a similar class for any other black variety five competitors entered, first prize being won by Colonel H. Walpole, Winchfield, with splendidly finished bunches of Cooper's Black; G. W. Tyser, Esq., was second; and W. H. Myers, Esq., third.

Four exhibits were staged in a similar class for any white variety, W. H. Myers, Esq., being first with moderately well-finished bunches of Muscat of Alexandria. Colonel H. Walnole and L. Walker Munro, Esq., Brockenhurst, Hants, followed in the order named.

For six Peaches, one variety, G. W. Tyser, Esq., was first with well-finished and good-sized fruits, second and third prizes being won respectively by Colonel H. Walpole and J. Friedlander, Esq. In a similar class for Nectarines the prize-winners were J. B. Fortescue, Esq., Maidenhead, Colonel H. Walpole and G. W. Tyser, Esq., in the order named.

The class for three dishes of Plums, distinct, was well contested, and some very good fruits were shown. First honours were secured by S. B. Joel, Esq., Reading (gardener, Mr. F. Johnson), with splendid examples of Belgian Purple, Comte du Hathem's Gage and Washington. W. H Myers, Esq., was a good second, and third prize went to Colonel H. Walpole. In the classes for Apples and Pears the fruit generally was not ready for gathering, and ought not to have been exhibited.

The collections of vegetables generally were of very high quality. Messrs. Sutton and Sons' special prizes offered for collections of vegetables, ten distinct kinds, to be selected from a given list, were not keenly fought for, first prize falling to W. H. Myers, Esq., Swanmore House (gardener, Mr. G. Ellwood), who put up a most praiseworthy collection. His Onions, Leeks, Celery, Carrots, Parsnips and Runner Beans were superb.

In a similar class for six kinds, prizes offered by Messrs. Sutton, competition was very good indeed, first prize falling to the Rev. C. Turner, Woburn Park, Weybridge (gardener, Mr. A. Basill). The Onions, Peas and Potatoes here were superb. Colonel H. Walpole was a good second, G. J. Perkins, Esq., Woolton Hill, Newbury, third, and H. M. Robertson, Esq., Farnham, fourth.

Messrs E. Webb and Sons' prizes for collections of eight kinds of vegetables, distinct, brought forth several exhibitors, first prize being won by Mr. H. Keep, Aldermaston, an amateur, who staged splendid Onions, Carrots, Celery and Leeks. Mr. G. Winkworth, Aldermaston Street, Reading, was second, and third prize went to Lord Decies, Sefton Park, Slough (gardener, Mr. J. Irvine).

In the class for six kinds of vegetables, open to cottagers and artisans residing within three miles of Reading, the prizes were won by Mr. William Nash, Highgrove Street, Reading; Mr. W. Sapp, Sherman Road, Reading; and Mr. J. Read, Reading, in the order named. In a similar class, open to those residing within ten miles of Reading, Mr. H. Keep, Mr. A. J. Higgs and Mr. James Bartlett won in the order named.

NON-COMPETITIVE GROUPS.

Messrs. James Veitch and Sons, Limited, Chelsea, secured a large gold medal for a magnificent display of fruit trees in pots, Peaches, Nectarines, Figs, Plums, Apples and Pears being freely displayed. Mr. Charles Turner of Slough also received a gold medal for fruit trees in pots and hardy flowers, these being of very good quality indeed. A similar award was given to Mrs. Phippen of Reading for excellent floral designs, and Mr. Fred Eames of Reading also secured a gold medal for a collection of hardy flowers. Silver medals were awarded to Messrs. J. Holder and Sons, Reading, for a group of plants; Miss Vinden, Reading, for floral designs; Mr. T. Rigg, Caversham, for cut Roses and Roses in pots; and Mr. G. H. Leaver for a combined weed extractor and bulb planter.

ROYAL HORTICULTURAL SOCIETY.

AT the fortnightly meeting held at Vincent Square on the 31st ult. there was a splendid exhibition of flowers and fruit. The collection of Grapes from Wisley, the bunches from the old Vine at Hampton Court and the fruit trees in pots were very good indeed; and the wonderful collection of photographs taken by Mr. E. H. Wilson on his last Chinese tour attracted much well-deserved attention.

ORCHID COMMITTEE.

Present: Mr. J. Gurney Fowler (chairman), Messrs. James O'Brien, Harry J. Veitch, H. Little, W. Boxall, J. Forster Acock, F. J. Hanbury, W. H. Hatcher, A. N. A. McBean, C. H. Curtis, Walter Cobb, W. P. Bound, Arthur Dye, J. Charlesworth, H. G. Alexander, W. H. White, H. A. Tracey, Gurney Wilson, H. Ballantyne, W. Bolton, de B. Crawshay and Stuart H. Low.

Messrs. Sander and Sons, St. Albans, staged a nice bank of well-grown plants, Cattleyas being chiefly represented. These were mostly small plants, but all were well flowered. Silver Flora medal.

H. S. Goodson, Esq., Fairlawn, Putney (gardener, Mr. G. E. Day), also exhibited a small group of well-grown plants, including Cattleyas, Cypripediums and several other genera. Epidendrum prismatocarpum, Miltonia cordia grandiflora, Cattleya Vesta, Lælio-Cattleya St. Gothard and Brasso-Cattleya Mme. Hye were a few of the most interesting sorts. Silver Flora medal.

Messrs. Charlesworth and Co., Hayward's Heath, had a beautiful little group arranged in their usual high-class style. The plants shown here were of splendid quality and extra well flowered. We specially noticed Cycnoches maculatum, Zygopetalum roeblingianum, Cattleya Venus, C. Rhoda, C. Harrisonæ alba and Trichopilia Turialvæ as being of extra merit. Silver Flora medal.

Messrs. William Bull and Sons, King's Road, Chelsea, had a small group of Cattleyas, these being well-flowered specimens. C. Maronii, C. pittiana and C. Pittæ were the best shown.

Messrs. Stuart Low and Co., Bush Hill Park, had a superb collection in the annexe, this comprising many beautiful specimens of much merit. Cattleya Harold variety Hildegarde, C. fulvescens, C. gaskelliana alba, C. aurea, Dendrobium formosum giganteum, Cypripedium niveum and C. William Lloyd magnificum were only a few of the good things to be seen here. Silver Banksian medal.

Lieut.-Colonel G. L. Holford, C.I.E., C.V.O., Westonbirt, Tetbury, Gloucester (gardener, Mr. H. G. Alexander), put up a very beautiful though small collection of more than usual interest. Among other superb plants was Lælio-Cattleya Golden Oriale Westonbirt variety, a most gorgeous flower of great purity, and which received an award of merit. Silver Flora medal.

Mr. E. V. Low, Vale Bridge, Hayward's Heath, staged a small group of choice plants, among which were Cattleya gaskelliana alba, Anguloa uniflora and several splendid Cypripediums.

R. G. Thwaites, Esq., Christchurch Road, Streatham, also staged several very good plants.

FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), Messrs. C. T. Druery, H. B. May, A. Kingsmill, J. Green, G. Reuthe, W. Howe, J. Jennings, C. Blick, A. Turner, R. W. Wallace, William Cuthbertson, E. H. Jenkins, W. J. James and Charles E. Pearson.

Herbaceous Phloxes, Gladioli, Kniphofias, Montbretias, Pentstemons and other showy hardy flowers were included in a large group from Messrs. Barr and Sons, Covent Garden, who also displayed Lobelia Firefly, perhaps the most brilliant of the L. cardinalis group of these fine summer flowers. Veronica subsessilis, a really fine blue-flowered plant 2½ feet high, was also noted. Silver Banksian medal.

Messrs. Carter Page and Co., London Wall, staged a particularly fine lot of Cactus Dahlias at the western end of the hall, and the flowers, arranged in baskets and Bamboo stands, made a most effective display. Draped with Asparagus and Ampelopsis trails and interspersed with pot-grown examples of Kochia, the group was a great attraction. Dainty, in yellow and pink, was very charming. Single and Pompon varieties were also freely shown. Silver-gilt Flora medal.

Messrs. J. Cheal and Sons, Crawley, brought single and Cactus Dahlias, Phloxes, Pentstemons and other showy hardy flowers in great variety, a few flowering shrubs, as Leycesteria formosa, Weigelas, Tamarix and the like, being noted.

Messrs. W. Wells and Co., Limited, Merstham, brought a fresh-looking lot of the early flowering Chrysanthemums, Phloxes and Pentstemons, Leslie, a fine yellow of the first-named, being particularly noticeable and good. The yellow colour is deep and the flower of capital form on a free habit of growth.

Mr. A. Ll. Gwillim, New Eltham, had a very fine lot of single, double and crested Begonias, the colour shades being most intense in many of the varieties. Yellows, whites, salmons, crimsons and scarlets were excellent.

Messrs. J. Peed and Sons, Streatham, S.W., showed very fine lot of Phloxes, Statices and Sunflowers, Knip flas, Scabiosa and other things being good.

Mr. F. Eames, Frome, Somerset, had a full-length ta of herbaceous Phloxes, Pentstemons, Montbretias a other good hardy flowers, the Phloxes being splendi displayed. The collection of these was a most comp hensive one, the group containing the finest of these present in commerce. Silver Flora medal.

Mr. W. Pfitzer, Stuttgart, had a collection of Gladioli many named varieties, the standard of which was mu below that usually seen.

Some excellent vases of Sweet Peas came from Mess Dobbie and Co., Rothesay, the group containing sor forty varieties. The flowers for so late a date were al excellent, and such notable varieties as Masterpie (lavender), Sunproof Crimson, Mrs. Hugh Dickson (an i proved Mrs. Henry Bell), Mrs. Ireland (a bicolor variety cream and pink) and The Marquis (mauve shaded flowe were among the best of a capital lot. Silver Banksian meda

Mr. Frank Brazier, Caterham, Surrey, had a larg exhibit of early flowering Chrysanthemums, Phloxes a herbaceous plants generally. The Chrysanthemums i cluded Nina Blick, Brazier's Beauty (semi-double blus white), Leslie (fine yellow), Polly and others. Carnation too, and the annual Scabiosas were well displayed.

Messrs. T. S. Ware, Limited, Feltham, had a prett rockwork display with alpines, also an imposing bank Artemisia lactiflora, which in the mass was particular effective.

Mr. G. Reuthe, Keston, Kent, brought many interestin plants, notably the double form of Erica vulgari Tamarix, Gypsophila paniculata fl.-pl., Gaura Lindheime and others. Erica vulgaris Allportii, a deep-coloure form, is a most effective and good variety. Silve Banksian medal.

Messrs. Gunn and Sons, Olton, near Birmingham, had particularly fine lot of herbaceous Phloxes, the varietie being very numerous and displayed to advantag Crimsons, salmons, whites and other shades were a excellent. A mass of Viola cornuta atropurpurea was ver effective and good. Silver Banksian medal.

Messrs. Harkness and Son, Hitchin, had a nice displa of hybrid Gladioli, chiefly seedlings, some of these i salmon and cream shades being particularly goo Messrs. Harkness also had a lovely group of Roses, which Victor Hugo (very dark), Lady Ashtown (pink) an Edu Meyer (a lovely apricot tone) were delightful in th extreme. Hugh Dickson (reddish scarlet) was also notable Silver-gilt Banksian medal.

Mr. Amos Perry, Hardy Plant Farm, Enfield, had particularly showy group of herbaceous flowers, of whic Lilium auratum rubro-vittatum, L. Batemanii and tigrinum in variety were good. Phloxes, Pentstemon Kniphofias, Lychnis grandiflora, Asclepias tuberos Coriaria terminalis with orange fruits, and Sagittari japonica fl.-pl. were excellent. A basket of the Belladonn Lily was very showy. Silver Banksian medal.

Messrs. R. Wallace and Co., Colchester, had a remark able exhibit of the newer Montbretias, a table lengt being occupied by the cut sprays. The collection repr sented the cream of these flowers as raised at Westwick and is, without doubt, quite unique. Pageant, of orang shade, is remarkable for stature and colour; Kin Edmund, of a clear apricot orange, is also of fine stature while Prometheus, the darkest of all, is unmistakably th king of the lot. Dark in colour in bud and proportionatel so in stem, it is a remarkably handsome plant and quit unique. St. Botolph (yellow), Lady Hamilton (orang yellow), and Norrie (with dark buds and stems an orange flowers touched reddish crimson externally) wer also good. Messrs. Wallace also exhibited a very nic collection of Gladiolus, among which the hybrids of G primulinus were particularly interesting and beautiful The shades of rose, cream, cherry red and the like wer very remarkable. The blue-flowered section of Gladiolu were also well shown, and Lilium Henryi was very goo Silver-gilt Flora medal.

Messrs. Kelway and Sons, Langport, had an exception exhibit of Gladiolus, the bold spikes of flowers in a wo derful range of colours being very striking and effectiv Golden Measure, Valdora (pink and rose), Morris Dance (salmon), Lady Rosemary Portal (pink and yellow), Lad Moyra Cavendish (pale salmon) and Prince Henry of Yor (flame scarlet) being among the best in a really formidabl lot. Silver Flora medal.

Messrs. H. B. May and Son, Edmonton, had an excellen table of flowering plants—Heliotropes, Veronicas, Bou vardias and Carnations in free-flowered and well-grow plants. In the last-named group Coronation, The Belle Elizabeth (scarlet), Mrs. Burnett and Fair Maid were see to advantage. Silver Banksian medal.

Mr. L. R. Russell, Richmond, had a capital display o Clematises, Lady Northcliffe (deep blue), integrifoli Durandi, Beauty of Worcester (clear blue) and Mrs. G Jackman (white) being noted. Silver Flora medal.

Messrs. James Veitch and Sons, Limited, Chelsea brought a compact group in flower of the Javanico jasminoides section of Rhododendrons, among whic President (apricot), Primrose, Multicolor Ruby, Brilliant Taylori (pink) and Cloth of Gold were excellent. R jasminiflorus carminatum was also very fine. Messrs Veitch also brought a fine collection of new tree and shrubs recently collected in Central and Weste China, among which Magnolia Delavayi, Artemisia lacti flora compacta, Eleutherococcus leucorrhizus, Buddleia in variety, Thalictrum dipterocarpus, Tilia Oliveri Viburnum rhytidophyllum, Ilex Henryi, Viburnum Henry with crenate leafage, Berberis Gaignepainii (very distinct) Cotoneaster rugosa Henryi, Veratrum Wilsonii with crea flowers, and Davidia involucrata were among the best Silver-gilt Flora medal.

THE GARDEN.

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EDITORIAL NOTICES.

ery department of horticulture is represented in THE DEN, *and the Editor invites readers to send in questions ing to matters upon which they wish advice from petent authorities. With that object he wishes to make 'Answers to Correspondents" columns a conspicuous ure, and, when queries are printed, he hopes readers kindly give enquirers the benefit of their assistance. communications must be written clearly on one side of the paper, and addressed to the* EDITOR *of* THE DEN, *accompanied by name and address of the sender.*

e Editor welcomes photographs, articles and notes, he will not be responsible for their safe return. All nable care, however, will be taken, and, where stamps enclosed, he will endeavour to return non-accepted ributions.

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he Editor will not be responsible for the return of artistic terary contributions which he may not be able to use, the receipt of a proof must not be taken as evidence an article is accepted. Publication in THE GARDEN *alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

DISA GRANDIFLORA AND ITS CULTURE.

THE beautiful group of well-grown and superbly flowered plants of this lovely Table Mountain Orchid exhibited at the meeting of the Royal Horticultural Society at Vincent Square on August 17 by Mrs. Bischoffsheim (gardener, Mr. Taylor) proved a source of great attraction and pleasure to a large number of visitors. The rich scarlet, purple and gold of the wing-like petals, combined with the white to rose colour of the upper hooded part, veined as this was with delicate lines of richest purple, presented so rich and brilliant a combination of colouring as is scarcely possible in any other flower. No wonder it is sometimes called the flower of the gods.

This group brought to my mind the large collection of these plants which I had under my charge a good many years ago when gardener at Chatsworth, and where the then Orchid foreman succeeded so well in their culture. It is a singular phenomenon that, although in the hands of some cultivators it is one of the easiest and simplest of all plants to grow, yet in the hands of others, equally competent in other respects, the plant has proved incorrigible and will not grow at all.

Seeing that it is a plant of such rare beauty when successfully grown, that it only requires the accommodation of an ordinary cool greenhouse, and that no particular trained skill is required in its culture, I venture to give a few particulars of this in the hope that some readers of THE GARDEN who have not previously undertaken its culture may be induced to try.

To start with, we will take the plant as we saw it the other day in full bloom. I will suppose that the grower has an ordinary span-roofed or lean-to greenhouse (with sufficient heat to keep out frost in winter), with a path in the middle or side as the case may be. Immediately behind the door in a corner of the house and on the sunny side clear a space on the stage sufficiently large to accommodate the number of plants you wish to grow. This will suit the plant admirably both summer and winter. While in bloom give abundance of air during fine days, opening the door wide and the ventilators to their full capacity, and leave a chink of air on both top and bottom ventilators all night also, shading from bright sunshine.

Watering.—During its season of growth the Disa requires an abundant supply of water. It used to be thought that the soft-water supply in use at Chatsworth, collected as it was off the peat moors lying between Chatsworth and Chesterfield, had something to do with its successful culture there. Be this as it may, it is useless, in my opinion, to try and grow this plant where the water is strongly charged with lime or chalk. In such cases rain-water must be used.

Reverting again to the plant in bloom. While the flowers are fresh and there are any buds left to expand, the roots must be kept moist (always at all times watering the plants overhead from a can with a fine rose to it). When the flowers and stems have faded and the latter die down, they should be cut off and water applied sparingly at the roots for a time. It will not be long, however, before young growths will appear at the base of the old flower-stalk. These must be encouraged to grow by occasional applications of water, and by the end of September or beginning of October the time has arrived for the plants to be repotted.

The Potting Compost.—In speaking of this with the object of making clear to the grower the quantities of each constituent to be used, I cannot do better, I think, than reduce each to a certain measure. To begin with, procure some best Orchid peat full of fibre and fairly hard—peat that will not easily crumble away into dust or small particles. Pull it to pieces the size of small Walnuts with the hands, sifting away all the finer portions from it. To a gallon of this add another gallon of live sphagnum moss, cutting it small with a pair of sharp shears. To this add half a gallon of clean crocks broken small, the dust to be included. Mix the whole thoroughly together, and you will have an ideal compost for the growth of this plant.

The next thing to do is to prepare the pots. Where a large stock of the plant exists it is a good plan to select the stronger growths at potting-time, placing seven or eight of them in an 8-inch pot. These treated as one plant will grow into fine specimens, most of the growths giving from five to seven blooms each; but in the case of those with a limited stock it is better to place each growth at the time of potting into a single pot—the largest into 5-inch or 6-inch pots, the medium into 4-inch pots, and the small ones into 3-inch pots; these latter will not flower the first year. The pots and the crocks must be scrupulously clean. The latter should be broken into pieces the size of a Cob Nut and the dust sifted away, filling the pot with them to one-third its depth.

Potting.—First turn the plants carefully out of their pots; then divide the growths into sizes of 1, 2 or 3, potting the first size in a 5-inch or 6-inch pot, according to its strength, and the weaker ones smaller pots, preserving to each growth every particle of live root which may

belong to it. The plants should be so fixed in the pots that their base is at least 1 inch higher than the rims. Place the compost carefully round the roots as potting proceeds, pressing it firmly down with the hands.

After-treatment.—The newly potted plants must be placed back in the sunny corner behind the door, having first washed the glass and woodwork clean, elevating each plant on to the top of an empty inverted 6-inch pot. This secures a freer and better circulation of air among the plants than would be the case if placed directly on the stage. The plants will continue to grow slightly until the end of October, and must be kept fairly moist at the roots by an occasional sprinkling overhead. After this date the plants will remain dormant during winter, receiving but little water, but never allowed to become too dry. Air must be admitted on all favourable occasions, and the temperature should not be allowed to fall below 47° Fahr. In frosty weather it is much better to protect with mats than to force the temperature up with fire-heat.

As spring approaches and the warmth of the days increases, so must the plants receive more copious waterings, always overhead, with a rosed pot, and abundance of air be given when the weather is favourable, with slight shade from hot sun. OWEN THOMAS.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

*** *The dates given below are those supplied by the respective Secretaries.*

September 14.—Royal Horticultural Society's Exhibition of Flowers and Fruit, Vincent Square, Westminster, 1 p.m. to 6 p.m. Lecture at three o'clock on "The Physiology of Pruning," by Mr. E. A. Bunyard.

September 16. — National Rose Society's Autumn Exhibition, Horticultural Hall, Vincent Square, Westminster, 1 p.m. to 6 p.m.

National Vegetable Society.—This newly formed and important society is quietly forging ahead, and already has some good work in hand. Trials of spring Cabbages and autumn-sown Onions are being made at Guildford on gravelly soil, at Twickenham on marshy land and at Romford on stiff Essex clay, and the seeds are sown and the young plants making good progress. What the new society now wants is members, and there must be many of our readers who have a great interest in vegetables and who would derive much benefit from the society. As previously stated in our columns, His Grace the Duke of Portland, K.G., is the president. The annual subscription for members is only 5s., and we appeal to our readers to come forward and support the committee in its praiseworthy endeavours to promote the culture and more extensive consumption of high-class home-grown vegetables. A circular has been prepared setting forth clearly the aims of the society and inviting membership, and a copy of this will be sent to anyone who will write to the hon. secretary, Mr. E. G. Quick, for it. His address is Kelmscott, Harrow View, Wealdstone, Harrow.

Home bottled and preserved fruits and vegetables.—A show of the above, including fruits bottled in water and in syrup, jams, &c., will be held from December 1 to 4, 1909, at the Horticultural Hall, Vincent Square, Westminster. Dried or bottled fruits and vegetables of any kind may be shown, subject to the conditions of (*a*) there being no chemical preservative or (*b*) artificial colouring matter used, and (*c*) of their being tasted by the judges; (*d*) provided also they have been grown in the British Islands. Tomatoes are considered vegetables. Bottles with glass lids are greatly to be preferred. Awards of cups, medals and other prizes will be made. For particulars apply to the Secretary, the Royal Horticultural Society, Vincent Square, S.W.

Mr. Wilson's Chinese photographs.—As we were unable in our last issue, owing to the pressure on our space, to refer in greater detail to some of the more important photographs taken by Mr. E. H. Wilson when in charge of the Harvard University Expedition to Central and Western China in 1907-9, we take this opportunity of doing so in the interests of our readers and by reason of the unique character of the collection. The exhibited portion of the collection numbered some twelve or fourteen dozen out of a total of several hundreds taken by Mr. Wilson, the pictures being subsequently developed and printed by Mr. E. J. Wallis of Kew. The photographs were of a very comprehensive character, and embraced the flora, fauna and scenery of the country visited by Mr. Wilson on his third trip to China. Among those we regarded as particularly interesting were Davidia involucrata, thickly set with the whitish bracts which we are waiting to see on cultivated examples in England; while of Cypripedium tibeticum a very fine group was shown. Of Paulownia imperialis a well-flowered tree and a big truss of the huge Foxglove or Pentstemon like flowers were separately displayed. Very interesting and good, too, were the fruits and fruiting sprays of Actinidia chinensis; while the picture of a grove of the rather columnar-looking Populus euphratica, trees of about 100 feet high, growing outside the city of Tatien-lu also showed a snow peak estimated at 23,000 feet high in the far distance. Fields of the Opium Poppy, a great wealth of Nelumbium speciosum, Primula sinensis and P. Veitchii in their wild state on nearly perpendicular banks were of much interest, though perhaps of even greater interest still were giant examples of rare trees, which revealed their bark and stems in a most remarkable manner. This unique collection of pictures was admirably displayed, and well merited the gold medal awarded by the council.—E. H. J.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Verbascum pulverulentum.—Allow me to observe that the Mullein you publish in your issue for August 28 (page 422) is not the Verbascum pulverulentum of Villars, but the V. olympicum of Boissner (*vide* "Flora Orientalis," Vol. IV., pages 322 and 324). So far as I can see by the photograph, the leaves are entire, as are those of V. olympicum—those of V. pulverulentum are if anything crenate—and the flowers are not in small fascicles separate, but seem to form long spikes, as do those of V. olympicum, and the whole aspect of the plant is that of the beautiful V. olympicum, which is one of the highest biennial plants. The two plants grow wild in the Orient; but pulverulentum is an European species, too, and is found in our country, where it is very common. V. olympicum is the best of the Mulleins, but rather too big for a small garden.—H. CORREVON, *Geneve.*

A garden theatre.—Gardeners in these days of pleasure pursuits are constantly being required to provide as parts of the garden pleasure grounds, croquet, tennis and bowling lawns or courts, and, on a much larger scale where there are parks, golf courses, all of which, not merely in the making, but also in the upkeep, require much additional labour and expenditure. All these pleasing amenities are provided in a liberal—indeed, in an almost sumptuous—way in the pleasure grounds and park attached to Esher Place, Surrey, the residence of Sir Edgar and Lady Helen Vin The grounds are well timbered and fu some splendid landscape views. Beech does many superb trees being in the grounds, alth perhaps the noblest tree of all is a really g Tulip Tree, its rich, luxuriant green leafage wide-spreading branches giving to it all regal aspects of a woodland monarch. Exp as it is on its elevated site to all the fierce w of the south-west, it seems to withstand t all quite unharmed. But interesting from Elizabethan associations and beautiful as the grounds, a remarkable addition to t was made last winter in the shape of *al fresco* or lawn theatre. This is construc out of the deep slope of lawn which runs f the mansion, with a huge covered tennis cour its eastern side to a westerly direction, the st being west and the auditorium east. Tnis p of the excavation, for that is what the thea really is, has from side to side at the top a wi of about 98 feet, and the circumference of semi-circle thus found on the upper level 198 feet. The lower centre is a level or floor stalls of a semi-circular form 42 feet wide, a from the front of the stage to the apex of t bow 36 feet. Then, beside and behind this flo to which in each case access is obtained by a ser of turf steps, are four terraces. These are their level surfaces each 3½ feet broad, a rise 2 feet one above the other. The ban to these terraces are slopes at an angle 45°, and each is some 3½ feet deep on the fa The upper terrace is of great breadth, givi ample room for seats in rows four to five dee The width of the lower terraces is suited each one row of seats and ample walking room front to reach them from the respective fligh of steps. It is no exaggeration to say that least 1,000 persons might be conveniently seat in this huge auditorum. The stage, which elevated 2 feet above the level of the stall flo is 56 feet wide in front for a depth of 20 feet a has a further depth of one-half that width 20 feet more. This narrower part is margined enclosures for retiring-rooms for the performe Along the front of the stage is planted a row pink China Roses. All other parts of the st are partially enclosed with Yew hedges, b these have yet to make material growth. T entire surface of stage, dressing-rooms, steps a auditorum is of soft turf, and is mown eve week. It would be thought that the mowing the terrace slopes with a lawn-mower would ha been very difficult, but that is easily overcon as while one man propels the mower from belo another with a stout cord and walking on t edge of the terrace above keeps it in exa position. The practical designing and carryi out of the novel work of formation was done the able gardener, Mr. T. Gibbons, who al formed the golf course and the tennis a croquet courts. Work of this kind needing co siderable constructive abilities serves to illustra something of the nature of the duties gardene are in these days required to undertake and ho essential it is they be exceptionally capable me Necessarily, the formation of the theat necessitated the moving of a huge body of so It only needs to be seen to satisfy the mo exacting that the work was carried out wi singular success.—A. D.

Antholyza paniculata.—The note this plant by Messrs. Barr and Sons in T GARDEN, August 28 (page 428), may be suppl mented by the remark that this bulb is hardi than is generally understood. We cultivate in the open in the South-West of Scotland wit out any protection whatever, except that w cover it with 2 inches of litter or ashes the fi winter after planting. It is a handsome bulbo plant, and, if left alone, soon makes good clump which are of striking effect in late autumn. is desirable toallow the old foliage to remain the plant ntil spring removes all danger severe frosts, but it requires in after years other protection with us. I approve of de

ting, and my corms are at present about ches deep. The fine variety A. p. major is handsome, but is a poor bloomer with us, as flowers generally come much later than those ne type. This year only one spike will be in er in September, and even this is quite sual, as it is seldom that they are able to before frosts destroy the buds.—S. ARNOTT, *nymead, Dumfries.*

Rose Dorothy Perkins.—I am fording you a photograph of a fine specimen of e Dorothy Perkins grown on the wichuraiana k. I think this is as fine a standard as can een in the environs of London. It is growing my ordinary garden at Tottenham, within en miles of the city; it is 8 feet high and 15 in circumference, and looks a perfect huge quet of flowers, scarcely any of the green es showing. As I have been for many years ader of your valuable paper, and obtained all hints from it, I thought this illustration ld be interesting to other readers.—W. J. OMAS, *The Limes, Northumberland Park, tenham, N.*

Roses on their own roots.—I write ay that I can supply a number of Roses of ain varieties on their own roots. Perhaps cH." might like to know. I am inserting an ertisement to this effect in THE GARDEN. OLLO MEYER, *Clophill Rectory, Ampthill, lfordshire.*

— Noticing the enquiry of your correndent "McH." for Roses on their own roots, eg to say that I have been supplied with good ntities of these—mostly large plants—by lliam Paul and Son, Waltham Cross, Herts, they do well with me. I get them first to d me a catalogue with those marked which be supplied on their own roots from the open und. The wichuraiana varieties are specially d.—MISS ROBINSON, *Hants.*

The Shrewsbury Horticultural ow.—As a visitor to this great exhibition, I ngly sympathise with the comments of the ter of your excellent report of that show en referring to what he well describes as the tchedly inadequate space allowed for the orated fruit tables. It was possible to see side only of each of these superb arrangents, and their beauty and effect was thus atly marred. What is needed is such room rded to each table right in the centre of the t that at least 6 feet wide should separate m, so that visitors might see all around each ; but the same comment applies to so many he superb exhibits in the show. In the great ape class, for instance, exhibit followed exhibit close that it was difficult to tell where one gan and the other ended. In the flower decora- classes grand bouquets—the finest ever seen vere so crowded that some almost hid others m view. In the great plant classes, especially the decorative groups, there was really no ce allowed between each other, and thus it s not easy to define their bounds. Practily in so many directions greater space tween each exhibit was much needed, yet in ne other cases there was ample space and to re. Certainly the committee uses every inch room with tents it is permitted to occupy, d a marvellous exhibition results. That makes all the more regretful that, because classes are numerous—really, in so many sections, needsly numerous — things have to be crowded duly, much to their detriment, as also that of s show. I note a complaint that enough vards were not made to honorary exhibits; t is it worth while to admit so many of these norary exhibits that occupy valuable space d do so little to add interest to the show? ot a few single-dish classes in the vegetable nt were unworthy of the show, and their room ght have been far better occupied. Evidently e only course open to enable the show to be hat it ought to be is to materially cut down sses and inferior exhibits.—VISITOR.

BISHOPSGATE GARDENS IN SUMMER.

BEING in the neighbourhood of Windsor recently, I was privileged to inspect these beautiful gardens, which are situate on the outskirts of Windsor Park and adjoining those of Baron Schröder. Although I wish to describe the charming arrangement of so vast a collection of choice flowers and shrubs, I am compelled to trust to the imagination of the reader and confine myself to a brief outline of the many subjects which help to build up such a series of natural pictures. Needless to say, the most exquisite taste has been displayed throughout by Lady Marcus Beresford, who is a genuine lover of gardening. From time to time Lady Beresford has been able, through the kindness of His Majesty King Edward, to take into the garden several old Oaks, which add considerably to the surroundings, the beauties of which have been greatly enhanced by the grouping of choice shrubs. Here can be found beds of Japanese Acers, including the varieties atropurpureum, aureum, dissecta, colchicum rubrum and californicum aureum, the last-mentioned being one of the best; also I noted good specimens of the variegated Maple (Acer Negundo) and the golden variety, both enjoying partial shade. A bed of large dimensions is also filled with bright-coloured Azalea mollis, which revel in the leaf-soil, peat and sand; this had contained in addition 100 or more massive spikes of Lilium auratum platyphyllum, many of them 10 feet high.

Other Lilies to be noticed were several hundred L. davuricum just passing out of flower, L. Leichtlinii, L. Brownii, L. speciosum magnificum, L. Batemannæ, L. candidum, L. pardalinum and many others. Rambling Roses have been extensively planted, and include Philadelphia, Wallflower, Lady Gay, Mrs. F. W. Flight, Blush Rambler, Gardenia, Alberic Barbier, Climbing La France and several others, some growing in isolated positions, while others have the support of tree stems; but most attractive of all was a charming hedge of Crimson Rambler some 70 feet or so in length and in perfect order. This alone when in flower must be beautiful. Rhododendrons included all the best varieties procurable, and have been so distributed about this beauty spot that even when not in flower they act as a foil to the attractiveness of some other object. Mr. Markham, the head-gardener, told me they had none so good as Pink Pearl, which had been planted in fair quantity; but others worthy of note were R. Cynthia, Michael Waterer, Prometheus, The Queen, Lord Lansdowne, Kate Waterer, John Waterer, Martin Hope Sutton and several dozen plants of Veitch's Early Gem. Several beds were used for the display of dwarf Roses, the most striking of all being one of Ulrich Brunner, a Rose which is loved by all. Mme. Abel Chatenay, Lady Ashtown and Caroline Testout are all varieties to be seen massed together to give a delightful effect from some point or other, with here and there a weeping standard wichuraiana. Great care has been given to the selection of ornamental and flowering shrubs as well as to their arrangement. These include Viburnums in variety, Dimorphanthus, Colutea arborescens, Sophora japonica, Cæsalpinia japonica, Rhus Cotinus, Ailanthus glandulosa, Buddleias, Cotoneasters, Cerasus in variety, Exochorda grandiflora (Pearl Bush), gold and silver Cornus, Forsythias in variety, massive specimens of Spiræa Lindheimeri, flowering Almonds, Arbutus Unedo, Garrya elliptica and others too numerous to mention. Some of the flower-beds about the house were planted with more tender subjects. Strikingly beautiful were several Begonias, the varieties most noticeable being Lafayette and Count Zeppelin; these were edged with the new white Ivy dentata variegata, and gave a handsome finish to each.

ROSE DOROTHY PERKINS IN A NORTH LONDON GARDEN.

No vegetables for eating are grown, the entire kitchen garden being devoted to flowers for cutting, such as Roses and Sweet Peas, while the houses, which are not numerous, are utilised for growing Malmaison Carnations, choice Ferns and other plants suitable for home decoration. The herbaceous borders, four in number, are well filled with only the very choicest of plants that can be found, and reflect the greatest credit on Mr. Markham. GEORGE BURROWS.

Shendish Gardens, Hemel Hempstead.

THE ROSE GARDEN.

THE NEWER ROSES.

THE Rose season of 1909 will probably go down in most rosarians' calendars as a disappointing one. It has been a black year to many. To few can it have been satisfactory, and even those would have some qualifying remarks that would discount the satisfaction. The exhibitions have been held and the prizes have been won, but the Rose at its best has been present only at few of them, and then in small quantities. I do not propose to enter into any detail as to the causes, but the effect has been there for all to see, and these remarks are only made as a preface to discussing the newer Roses of the season of 1909. Speaking generally, they have not had a fair chance of showing us what they are capable of.

Well-established favourites like White Maman Cochet have been conspicuous by their absence almost from our gardens, and one hesitates, therefore, very much before one condemns any Rose on its 1909 record alone; but I think one may pause and ask whether we are not getting too many new Roses. I know the reply is that one need not trouble, that they are bound to find their level; but there is a good deal of unnecessary disappointment in the process, and it is with the hope of preventing some of it that these notes are written.

The original notes have been made through the entire season at shows, at nurseries, in the gardens of leading rosarians, but mostly in my own. They have been compared with similar notes made in former years, and the reader can take it that just as no Rose is recommended without fair justification, so no Rose is condemned without due reason. At the same time, many things influence Rose growth and Rose flowers, and a bad grower and poor flower in one district sometimes, but not often, becomes a good grower with a good flower in another. My own garden is not an ideal one by any means for Rose culture; it is too exposed and windswept, but it is undoubtedly healthy, and a Rose has a fair chance to show what it is capable of. I find that the characteristics it produces in my garden are normal, judging from what I see of it elsewhere.

As to what are and what are not new Roses, as a general rule I shall not go further back than the year 1906. Roses with few exceptions get into general cultivation in about three years. Occasionally a good one is missed, but as a rule the trade finds them out in two years and the public in three or four. Roses, then, introduced into commerce in 1906, 1907 or 1908 cover the ground of these notes; but I shall not refer to Roses that are too well known of the first of the three years named, and may possibly refer to the few Roses of 1909 that I have been able to grow and flower at the end of these notes.

I have always written of the newer Roses under the three heads of Hybrid Perpetuals, Hybrid Teas and Teas, and I propose to continue that division as the most convenient, and will, as far as possible, keep them in alphabetical order. A correspondent writes and suggests that I should put them in order of merit, but that is asking rather too much. The first half-dozen or dozen might not be difficult to place, but there ceases to be any distinction after that number is passed; besides, who can place garden Roses in order of merit? At any rate, I for one do not intend to try. I hope these notes will continue week by week until they are completed, so that they can be concluded before the catalogues arrive and orders are given, and I will start with the Hybrid Perpetuals next week.

Purley. HERBERT E. MOLYNEUX.

(To be continued.)

ROSE ECARLATE.

WILL this brilliant Rose surpass Richmond and Liberty for massing purposes? I am inclined to think it will. There is not the beautiful form which we have in Liberty, but it makes up for this in a much more intense scarlet colouring and there is less of the bluish shade in the older flowers. It appears much like a seedling of Marquise de Salisbury. Certainly the newcomer will supplant this old sort in course of time. I have before me as I write some brilliant clusters of Ecarlate, which compare favourably with Grüss an Teplitz, although devoid of the exquisite velvety scarlet which we have in this good Rose. Ecarlate will be splendid as an edging to tall pillars of Grüss an Teplitz, or, if this latter is planted as a hedge, a row of Ecarlate in front would be very effective. I saw recently a splendid hedge of Grüss an Teplitz in the beautiful gardens of H. Pearson, Esq., Brickendonbury, Hertford. The clever gardener, Mr. Smith, had raised all his plants from cuttings, and planted a long line of over 300 yards with this Rose, each plant a yard apart. During this month the beauty of this hedge will be great. In these beautiful gardens one saw what skilful planting can do in the matter of growth. Here were beds of Mme. Ravary, Prince de Bulgarie and Pharisaer, only planted some two seasons ago, rising to a height of 3 feet to 4 feet, with great, thick growths crowned with marvellous clusters of buds that will be a picture this autumn. Here also was an instance of the quick effect obtained by planting the long-shooted pot-grown plants of various rambler Roses, such as Hiawatha and Lady Gay, for although only planted two years, they were covered with blooms on growths fully 12 feet high. P.

THE FRUIT GARDEN.

GROWING PEACHES IN A SMALL GREENHOUSE.

[*In Reply to a Correspondent in North Lancashire.*]

YOU do not say whether you wish to make Peach-growing or flower-growing the chief feature of your unheated greenhouse. You cannot grow them both well together. I presume you mean to give the preference to the Peaches, and proceed to try and help you how to go about the business. The first thing to take in hand must be the border, and the first essential to success in making a border is that it should be effectively drained. In your part of the country it will be better for the border to be inside than outside. The present soil should be taken away to the depth of 3 feet and to a width of 6 feet, and, of course, as long as the house is. After fixing the drain-pipes with a proper outlet, place over the whole of the bottom of the border, to a depth of 6 inches, a layer of broken bricks, ash clinkers or stone, in order to secure effective drainage (should your subsoil be of a light, gravelly nature, through which water percolates freely, no other drainage is necessary). On the top of these place turves, grass side downward, to prevent the soil choking the drainage.

The next step to take is to prepare the soil for planting. This should consist of the following mixture: To one barrow-load of turfy soil add half a peck of old mortar or plaster rubble, two quarts of quicklime and the same of bone-dust; mix well together before placing in the border. The quantity required will, of course, depend on the size of the border—the space should be filled to the level of the surface and made fairly firm as the work of filling in proceeds. The end of October is a good time to plant the young trees. You would be well advised to get the nurseryman who supplies the trees to have them properly pruned, root and branch, ready for planting. The trees will appear much smaller when pruned, but you must not mind this, as it is important for the future success of the tre that they should be properly pruned at the ti of planting. The trees should be planted 7 inch deep; this will allow of the higher roots to covered with about 3 inches or 4 inches of soi Make the hole large enough for the roots to extended their full length, and be careful place the soil with the hands firmly round th roots. If there is room for more than one tre they should be planted at least 9 feet apart.

Having planted the trees, the next thing to d will be to provide a trellis for them to be traine to. I am presuming that your greenhouse what is commonly understood as a lean-to. Th trees should receive a good soaking of water a soon as planted, and will afterwards require bu little attention until growth starts in spring For treatment afterwards, consult the weekl calendar of seasonable work or write to th Editor again. The best and most satisfactor varieties to grow are: First early, Abec; second Royal George; for a moderately late season Barrington is hard to beat. The best Nectarine are: First early, Lord Napier; Pineapple an Elruge. OWEN THOMAS.

THE FLOWER GARDEN.

THE HARDY LADY'S SLIPPER ORCHIDS.

THE hardy Cypripediums are all beauti ful plants and worthy of being mor extensively grown than they are a the present time. Given suitabl conditions in cool, sheltered spots i the rock garden, fernery or ope woodland, several might be established wit little trouble, where they would make a mos attractive feature when in flower. In choosin a situation in which to plant any of these hard Lady's Slippers, the first care must be to avoi places exposed to winds or cold draughts. Thes are fatal to their well-being, as is also a close heavy soil. In making up a bed for thes plants the original soil should be taken out to depth of about 1 foot. Then place plenty o broken bricks in the bottom for drainage; ove this fill in with a mixture of rough peat, loa and leaf-soil, with a good portion of sharp sand This mixture will suit most of the differen species, exceptions among others being C Calceolus and C. macranthum. The two latte species require a more loamy soil, with th addition of some old mortar rubbish.

The best time for planting is in the autum as soon as the roots can be procured. I planting, take out a wide hole and spread ou the roots in a horizontal direction, with th crowns 2 inches or 3 inches below the surface o the ground. Work the soil well in between th roots and press the whole down firmly, takin care to avoid injuring the crowns. Whe established they will only require a good mulchin occasionally with well-decayed leaves.

There are many beautiful species in cultiva tion, but for general purposes the following wil be found to give satisfaction: C. Calceolu (English Lady's Slipper) is the most handsom of all our native Orchids and often reaches height of 18 inches, with one or two flowers o each stem. These flowers have yellow pouche and brownish purple sepals. C. macranthum, beautiful Siberian plant, grows about 12 inche high and bears large, rosy purple flowers, one o each stem. This, with the first-named, ar lime-lovers, and there is also a natural hybri between these two in cultivation (C. ventricosum) which is quite intermediate in character betwee its two parents. Perhaps the finest of all is C spectabile, which is found in the peat-bogs o North America. It grows about 2 feet high with stout, leafy stems bearing from one t three large white flowers flushed with pink. Thi is a very handsome favourite, and will grow i moister places than the others mentioned.

. pubescens, the yellow Lady's Slipper, is a tall-growing, beautiful plant from the thern United States and Canada with yellow vers. The illustration shows a plant grown pan, for which kind of culture this and the ers are well adapted. They are grown in l, shady frames, with the pots plunged to ir rims in ashes. C. acaule is an interesting nt with a pair of broad leaves and a large plish rose flower, the pouch of which is split vn the face. C. montanum is a choice little nt bearing a raceme of white-pouched flowers stems about 9 inches high. It and C. acaule ne from North America. W. I.

SWEET PEA CHAT.

w VARIETIES.—There have been several additions to the so-called yellow group during the sent season, but none of them proaches more closely to the real non Pure than those that we e had for a year or two. In nes Grieve and Clara Curtis, latter unassailable for exhibin purposes, we have the best our up to date, but there are l rumours of the Coreopsis low being a thing of fact. We l all enthusiastically believe it en we see it. Among the erican novelties Asta Ohn is tainly one of the most promis-; it belongs to the already ensive lavender group and came te true in many gardens. The vers are excellent in their ncer form, and are of fine size l substance. The plant is rkably free-flowering, and the iety is bound to come into at popularity during the forthning season. In somewhat the ne style but differing in colour Tennant Spencer, which is ther wonderfully floriferous t that will be welcome both for den decoration and for exhibin.

n the flaked Spencers there are east two which will be specially lcome, and these are Mrs. W. J. win and America Spencer. rora Spencer is an exquisite our and particularly refined, , as I have seen it and had it, her too small for exhibition rposes. Those who especially ire a variety for cutting must overlook it if flakes are appreted, which is by no means the e in all gardens. Mrs. Unwin ne of the best that has come m Histon, which is saying ch, and will probably take k as the finest red or rose flake stripe before a couple more sons have passed. The variety t will rival it is America ncer, which was raised by Mr. Stevenson, who, I understand, parted with the entire stock Mr. R. Sydenham. It is a gnificent flower as far as size, stance and shape are concerned, and cant fail to be popular for showing. Yankee, e of Messrs. House and Son's varieties, is close it, but perhaps not quite so lively in colour. A crimson that is well worth keeping in mind inclusion in the collection next season is Mrs. ncan, which was shown by Messrs. Stark and n. The flowers are large and the colour brilliant, d as far as one could judge shows little, if any, gns of burning in the sun. Will there ever be end of the pinks? We have scores already, d still they come, some being good and, there-e, welcome, while others are either bad or indifferent, and, therefore, not wanted. There is no disputing the fact that we have already several grand varieties in this group, and those who cannot bring us something that is either absolutely distinct in shade or vastly superior in some other important attribute might just as well keep their flowers at home. This season there are three marked for special notice, and they are Edrom Beauty, which has been described as an improved Helen Lewis; Charles Foster, which is so distinctly a new shade that no one knows how to describe it in such a manner that anyone else will understand what is meant; and Mercia, which the floral committee of the National Sweet Pea Society specially commended as a market variety. The first of this trio was raised by Mr. Alexander Malcolm; it is a bloom of exceptional substance and will make a place for itself in the near future. The second comes from Mr. Robert Bolton, and is one of the most distinct varieties of the year; as I cannot manufacture a description of my own, I will fall back on that attached to it by Mr. Charles Foster himself—a shade of pastel pink. Anyway, it is a splendid variety and will be very welcome. Mercia, from Messrs. Stark and Son, may be commended for the home, as well as the market garden, for the colour is bright pink with a charming suffusion of orange.

Mr. Breadmore received honour from the floral committee for Dazzler, which is an excellent name, for the colour is dazzlingly brilliant; it was one of the best sorts at Reading and attracted a full share of attention. Mr. W. Deal's Colleen, a bicolor, was commended by the floral committee as a market variety, but it is not a Sweet Pea that many of us will run after while we have Mrs. Andrew Ireland to grow and admire. SPENCER.

ONE OF THE HARDY LADY'S SLIPPER ORCHIDS (CYPRIPEDIUM PUBESCENS).

TRANSPLANTING THE CHRISTMAS ROSE.

[*In Reply to "A. I. L."*]

IN hardy plant gardening there is no plant more frequently mismanaged or more generally misunderstood than the Christmas Rose. And I am reminded of its importance and the seasonableness of the subject by an enquiry sent to me by the Editor from the above-named correspondent, who, with commendable brevity, asks, "How and when is the best time for moving Christmas Rose plants?" As to "when is the best time," the answer is that September is assuredly the month of months for doing this important work, just as this same month stands high in the estimation of those who plant bulbs and desire the "best" results from the same. Indeed, while there is nothing of the nature of a bulb in the root system of the Christmas Rose, its periodic root-production is so nearly allied to that of many bulbous plants that in both instances the planting should be done while the subject is in its most dormant mood. This periodic root production in the Christmas Rose is the one thing in the past that hardy plant gardeners in the main have failed to realise, or even adequately to gauge its importance, the result being that the plants have been regarded as "fastidious," "impatient of removal," and so forth That they are none of these things we know full well, though they may be "impatient of removal," and display unmistakable evidence of the fact when disturbed at an unseasonable time.

The oft-repeated instruction of text-books to transplant herbaceous perennials when so many inches of new growth have been made in springtime is, in the case of the Christmas Rose, a delusion and a snare. It is irrational, too, and the plant by its subsequent behaviour resents it as such. The reason of it all is clear for those who have eyes to see and intelligence to comprehend. The Christmas Rose produces but two sets of roots each year, the main or basal roots in early autumn and the lateral or fibrous roots in early spring with the coming of the new leafage; and it is of the greatest importance that the principal set of roots should be preserved intact if the secondary set of root-fibres are to exist at all or to exercise their functions. This root-preservation is the more important in the case before us, because of the brittle nature of the main roots and, equally, because, when broken or mutilated, they frequently decay to the base of the plant, and are not only rendered useless to the plant thereby, but preclude the possibility of the production of the lateral roots which, in the natural order of things, follow in spring. Hence, with the destruction of these roots by spring planting, the subject is thrown upon its own resources for many months for its existence, and no further roots being possible of production to sustain life and vigour, a debilitated

condition is set up, which, by the unthinking, has been translated into "impatience of removal."

September planting of the Christmas Rose, therefore, resolves itself into the rational and natural performance of such work, because it is at that time when the new main roots may be seen issuing from the shortly formed rhizome or rootstock, and at this time also when the work of lifting, dividing and transplanting may be done with impunity.

Our correspondent also enquires how to do this work, and the instructions on this head might well be prefaced with the negative that Christmas Rose plants should never be transplanted bodily in large specimens; nothing is more fatal to success. Attention to this and September planting are the chief essentials to success, and the instruction might well be in large type in every gardening book of to-day. The best way to divide a clump is to lay it on its side, take two small hand-forks, place them back to back, thrust deeply into the thick part of the rootstock, and by wrenching outwardly and in opposite directions the crowns will be severed without loss. A knife is bad, and the spade, with a stalwart jobbing gardener in command, may quickly make mincemeat of the entire lot. Plants of two or three good crowns and a couple of leaves are best for planting and give excellent results, and where large groups are desired early the ordinary methods of grouping at 9 inches or 12 inches apart should be indulged in. Many years ago a gentleman living near Manchester divided his plants to nearly single crowns every two or three years, and certainly no one has ever produced finer flowers or healthier examples, while the adoption of the method for years is, perhaps, the most complete answer to those who talk about fastidiousness and impatience of removal. The best proof of health in these plants is a vigorous tuft of evergreen leafage, and this assured, all else will follow as the natural outcome of such a development.

The soil cannot be too deeply or too well prepared, as the plants send down their main roots to a depth of 3 feet or more. Old mortar or sandstone chippings should be added freely to all but the lightest soils, and a good drainage should be ensured. Shade, *i.e.*, partial shade, as opposed to that from a dwelling which shuts out all sun and warmth, is good, and equally so a spot removed from cold and biting winds. These, then, are the essentials which make for complete success in the Christmas Rose, than which our gardens contain no more welcome or precious flowers in winter-time and none more hardy or enduring when rightly understood.

Lifting the plants and forcing in heat for winter work is one of the best ways of destroying valuable stock, and plants required for this purpose should be grown in large pots or tubs. The best varieties to grow are maximus, major or Bath variety, and juverna, also known as angustifolius, the trio yielding a supply of blossoms from November to January inclusive in the order given. All are varieties of the typical Christmas Rose, which is known as Helleborus niger.

E. H. JENKINS.

Hampton Hill, Middlesex.

CAMASSIA LEICHTLINII.

THE Camassias, which are hardy North American plants, are ornamental subjects for the border, and are particularly valuable for the wild garden, for they associate well with the herbage and hold their own against the natural vegetation. The plant figured in the accompanying illustration is the ivory white form of Camassia Leichtlinii, which has an imposing effect in the border. The leaves are about a foot in length, and the bold spikes, 4 feet in height, carry nearly 100 flowers about 2 inches across with evenly disposed lanceolate petals. The upper 2 feet of the spike is covered with blossoms arranged in a light, graceful manner. The styles and stamens project at angles from the flowers, and add greatly to their effect.

CAMASSIA LEICHTLINII IN A SOUTH DEVON GARDEN.

Camassia Leichtlinii is very variable, and there are several forms. One named alba is pure white and a magnificent plant, the blossoms appearing as if frosted. Atrocærulea is a dark blue variety with broad-petalled, star-like flowers of great size, and is one of the finest of the Camassias, being stouter and taller than the type. Other Camassias are C. esculenta, styled by the Indians, who eat the roots, Quamash. It is 18 inches in height, and bears from twenty to thirty purple-blue flowers each 1 inch across. It is useful for massing in the wild garden. There is also a white form. C. Cusickii attains a height of 4 feet, and the upper 2 feet of the spike is densely clothed with upwards of 100 lavender blue flowers with yellow anthers. The individual blossoms are star-like and 1 inch in diameter, and are closely packed together. The leaves are glaucous, 2 feet in length and 2 inches in breadth. It is the earliest of its race to flower and is sometimes injured by late frosts. C. Fraseri is a comparatively slender plant 18 inches in height, bearing pale porcelain blue flowers less than 1 inch across. C. montanum is intermediate between C. esculenta and C. Leichtlinii, and produces dense spikes bearing about fifty flowers, each 1 inch across, with lanceolate petals. The anthers are very large, golden yellow in colour and set off the blue of the flowers. It is the latest of the race to bloom. C. Brownii grows 3 feet in height and bears lavender blue flowers about 2 inches across, which are prettily shot with metallic tints.

The culture of the Camassias is very simple, as they will grow anywhere in good soil and need a minimum of attention. They should be planted in colonies, as a single specimen has but a poor effect. They appear to excellent advantage when associated with Eremuri. Camassias do not produce many offsets, so that propagation by that means is a slow business, but they may be easily raised by the thousand from seed, and the seedlings will reach the flowering stage in their fourth or fifth year.

W. FITZHERBERT.

South Devon.

COLOURED PLATE.

PLATE 1382.

NOTES ON TULIPS.

THE COMING-OF-AGE OF THE DARWIN.

IN almost all classes of life, except possibly among the very poorest, the day when a young man or a young woman attains the age of twenty-one years is marked in some special way. It would ill become me with my great love for the glorious race of Tulips not to greet, on the first opportunity that I have, the coming-of-age of one of the youngest members of this ancient family with my heartiest congratulations and good wishes for what I feel assured will be a long and useful life in our gardens; and I would at the same time suggest that it would only be in accord with the earliest-known traditions of this flower of the East if we planted it in increased numbers in our beds and borders to mark this festal occasion.

FOUR GOOD DARWIN TULIPS.

Pink, Edmee. Pale Pink, Clara But
Mauve, Bleu Amiable. Crimso
Whistler

Kearns, Ltd., Printers, London, S.E.

Twenty-one years ago, in 1889, the great firm f Krelage of Haarlem took the floral world by torm in cataloguing for the first time Darwin ulips. They are a magnificent, strong-growing ace of breeders, distinguished by their striking olours and large, handsome flowers. No one nows exactly where they came from. At a Horticultural Club dinner last year, when the ulip was the subject for the after-dinner dis-ussion, Mr. Ernest Krelage, who was present as distinguished visitor, was asked how his firm ame by them. "It is sufficient," he said, that we have them." Although my historical nstinct would like to have been satisfied on this oint, on more mature consideration I am not at ll sorry that the birth of this noble scion of the reat Tulip race should be shrouded in mystery. he whole family is mysterious. Their traditions re mysterious. We do not know how the Turks ame to have those floral treasures in their ardens that Busbecquius saw for the first time n 1554. We cannot say if the "breaking" of flower means disease or full-grown maturity. We are puzzled to explain how in some well-known and carefully searched districts in Savoy nd round Florence in Italy a new stranger will uddenly appear and then just as suddenly isappear. Neither Mr. Bentley nor Mr. Needham, with all their years of practice, can guarantee that the same Sir Joseph Paxton bulb will next year throw as correct markings as it did this. There is mystery everywhere.

The appearance of the coloured plate in o-day's issue of THE GARDEN, which has been so happily timed to appear at this planting eason by the Editor, enables me not only to offer my small tribute of words and thoughts on his interesting anniversary, but it also calls ttention to the fact that this late-born son is, n another characteristic, a true child of the East. His gorgeous clothing, as we see the great waving colour masses in the Tulip fields of Holland, England or Ireland, is truly Oriental n its barbaric, unrelieved splendour. Acres of scarlet, crimson, and pink, with dashes of the deepest purple and the palest blush, are indeed a fine and fascinating sight. I have seen them in Holland, and it is my own fault that I have not seen them both at Wisbech and at Rush, near Dublin, as well. Messrs. R. H. Bath and Messrs. Hogg and Robertson have given me the kindest of invitations to see their brilliant shows, an invitation which I feel I am right in saying they would readily extend to any Tulip-lover who wished to come.

The particular flowers from which the painting for the coloured plate was made were grown by Messrs. R. H. Bath of Wisbech. Whistler stands for vividness, Edmee for harmony, Clara Butt for beauty and Bleu Amiable for quietness.

The vivid red of Whistler reminds me of Isis, Europe, Mr. Farncombe Sanders, Pride of Haarlem and van Poortvlist; and my thoughts wander to the richer, deeper colouring of Millet, Henner and Donders, and then on to the rich deep purple of Grand Monarque and Velvet King and to the almost black Zulu and La Tulipe Noire. With the pale-edged Edmee I associate such varieties as Mme. Krelage, Baron Tonnage, Suzon and Loveliness, beautiful flowers all, but not more beautiful or harmonious than Edmee.

In Clara Butt we have a variety that figures in every catalogue. No one would dream of leaving it out. "Exquisite." "A universal favourite." "Of the highest refinement in beauty and colouring." "The most handsome of all the Darwin Tulips." "Perfectly shaped." These are the descriptions that I find in the first five lists that I happen to take up. Need I say more?

Bleu Amiable has, in common with all the pale mauves, lilacs and heliotropes, something very restful about it. The contrast between the roses, reds and pinks and the quiet Bleu Amiable, Ergustes, Rev. H. Ewbanks and Mauve Clairs is just what is wanted for the one type to set the other off. A garden without either loses much. There are, of course, other shades than those already mentioned. There is the lovely Margaret with its sea-shell pink interior, the almost white White Queen and the sad deep rosy mauve Remembrance. Let us include them all, and if we want size, let us not forget the early old rose-coloured Nauticus and the huge new Prince of the Netherlands. Without all these some of the best of the Darwins will be wanting. JOSEPH JACOB.

TREES AND SHRUBS.

OLEARIA NITIDA.

THIS species of Olearia was introduced into this country from New Zealand in 1886. Though an extremely handsome shrub, it is, curiously enough, rarely met with in gardens at the present time, although such species as O. Haastii, O. stellulata (often misnamed O. Gunnii, which is quite a distinct species) and O. macrodonta are fairly common. In its native country O. nitida is said to reach the size of a small tree and to grow at an elevation of about 4,000 feet. It is, therefore, probably as hardy as O. Haastii, which is found at the same altitude, and hardier than O. stellulata; but as the number of plants of this species grown in the open in this country is decidedly limited, this is, at the present, rather a matter of conjecture.

A FREE-FLOWERING AND RARE HARDY SHRUB (OLEARIA NITIDA).

The specimen shown in the accompanying illustration is just 6 feet in height, with a rather greater branch-spread, and it has several times been exposed to 12° of frost; but, although totally unprotected, not a leaf or shoot has been injured. It is the largest example known to me in the South-West. As will be seen from the illustration, it is a very attractive object when in full bloom. The small, white, Hawthorn-like blossoms are about half an inch in diameter and are borne so freely on loose, branching racemes that, as shown in the illustration, they entirely hide the foliage. The leaves are leathery in texture, 3 inches in length and 2 inches in breadth, deep green on the upper surface and silvery white on the reverse. The flowers were this year borne in such profusion on the plant in question that when the withered bloom-clusters were cut off they filled three bushel baskets, showing the enormous number of blossoms that the shrub carried.

South Devon. W. FITZHERBERT.

THE SCARLET-FRUITED ELDER-BERRY.

WHEN bearing a good crop the Scarlet-fruited Elderberry (Sambucus racemosa) forms a very attractive feature in park, garden or woodland, its clusters of small scarlet berries being conspicuous from a considerable distance. As the name implies, the inflorescences are in racemes, not in flattened heads as in the common S. nigra; they are, however, borne quite as freely, and in most places the plant is no more difficult to cultivate than the native species. S. racemosa is widely distributed through the Northern Hemisphere, and is met with as a low-growing shrub or as a bush 12 feet or more in height with a considerable spread. It blossoms early, and the fruits ripen during July and early August. Beautiful, however, as a well-fruited bush of the type is, the species is less widely cultivated than the numerous varieties, some of which are conspicuous by reason of their finely cut leaves and rich golden colouring. The best of these are sometimes used as summer bedding plants in mixed beds planted for colour effect. They are also used for specimen beds on lawns and for groups in shrubberies.

Two of the best of the golden-leaved varieties are foliis aureis and plumosa aurea, while pretty green-leaved varieties are laciniata, plumosa, serratifolia and tenuifolia. All these are distinguished by means of their finely cut leaves. They thrive best in a rather shaded position in cool soil, and are not usually a success if planted in hot, sandy ground. Cuttings of these varieties may be rooted, and those who have not tried them for the purposes previously mentioned would do well to take them in hand. The type may be used as an undergrowth for thin woods or for massing in the wild garden, though the berries are eaten greedily by birds as soon as they are ripe. D.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN. — Privet and hedges of a similar kind, where the growth is young and dense, must be kept closely cut. The final cutting of such hedges must be made in October; but in the meantime it is advisable to trim the fences now so as to keep them as perfect as possible. Very little new

1.—THE SHOOT ON THE LEFT IS A HALF-RIPENED ONE OF LAURUSTINUS SUITABLE FOR MAKING INTO A CUTTING, AND ON THE RIGHT IS SHOWN A CUTTING PREPARED READY FOR PLANTING.

growth will be made after the end of September, and if all such be cut away in the following month there will be none left for the frosts to kill and thus spoil the appearance of the hedge in winter-time. The cutting of evergreen shrubs should be done with a knife, and not with shears, as it is wrong to sever the large leaves as well as the stems; but at this season of the year cut such shrubs as little as possible, only where it is absolutely necessary. If much new growth was made now as a result of cutting back branches, the frosts would probably badly damage it. All cuttings already inserted of bedding-out plants should be carefully examined, and if some have failed to strike, the losses must be made good forthwith. Every box and flower-pot containing cuttings must be placed under the protection of frame-lights now, and all fresh cuttings inserted, too. Those of the tenderer kinds, such as Iresines, Coleuses, Alternantheras and Mesembryanthemums, must be plunged in a gentle hot-bed at this season, in order to induce quick root-action.

Vegetable Garden.—Another batch of Endive plants must be lifted very carefully this week and forthwith planted in a cool, dry frame. Some of the outer leaves may be removed, but all others must be preserved and not damaged in any way. When planted in the frame, give water carefully so as not to moisten the leaves, ventilate freely, and at the end of a week or so place some mats on the frame. On a warm border a few Radish seeds may be sown thinly broadcast. Wood's Early Frame is a good variety, as it attains to a large size quickly and is very tender. Onions that are ripe must be harvested without delay. To tell when the bulbs are ripe the cultivator should gently pull one over sideways; if it is ready for gathering it will part from the soil very freely, but if it does not and requires force to pull it up, then leave the crop for a short time. The bulbs must be pulled on a fine day and partially dried on the ground; but if there is a likelihood of rain, spread out the Onions thinly on mats in an open shed prior to storing them for the winter. A few seeds of winter Spinach may now be sown. This plant will do well under fruit trees, but a naturally dry soil on a warm border is most suitable for it. Seeds of Mustard and Cress must be sown in boxes at this season and placed in frames.

Fruit Garden.—The gathering and storing of Apples and Pears are very important matters. These fruits, both for dessert and cooking purposes, are very valuable, and as their keeping in a sound condition for a long time depends, to a great extent, on the way in which they are gathered and stored, much attention must be given to them. Do not bruise the fruits, but place each one carefully in shallow baskets and with equal care put them in single layers on dry shelves in cool, dry, well-ventilated rooms. The Pears should be put in the warmest part and the Apples in the coolest. Fallen specimens must be placed by themselves and not with the sound ones. It will be necessary to once more examine the Strawberry plants and cut off any late runners found growing on them.

Greenhouse and Frames.—The temperatures in the greenhouse must now range as follows: Day, 55° to 65°; night, 50° to 55°. There will be no difficulty in the matter where there is heating apparatus. Climbers must be untied, surplus shoots cut out, the woodwork washed and also the glass where soiled, before the branches are tied up again. Make the latter clean and their surroundings also. Plants which are suitable for growing in frames during the summer months must now be taken to the greenhouse before their lower leaves turn yellow. The frames must not be allowed to remain empty, but be filled with hardier subjects. B.

INCREASING THE LAURUSTINUS AND THE OLEARIA.

THE Laurustinus is classified by the botanist under the name of Viburnum, in which family of plants is also included the Guelder Rose or Snowball Bush. The proper name of the plant under notice is Viburnum Tinus. It is a very old garden flowering shrub and is evergreen. Like many other of our beautiful so-called hardy flowering shrubs, it suffers somewhat in the extremely cold and hard weather of our British winter, but, generally speaking, in a normal season, especially in sheltered situations, it gives a good account of itself. The plant will succeed very well in any ordinary garden soil, but its prospects are improved when planted in well-drained borders made up largely of sandy loam.

There are several varieties of the Laurustinus. Besides the common one already mentioned, there is V. Tinus lucidum, which may be regarded as one of the very best. The flower-clusters of this variety are larger and whiter than the type, and on this account it is better liked for forcing purposes. V. Froebelii and others are more or less distinct from the common form, but they are all beautiful as evergreen flowering plants.

The Laurustinus is increased by cuttings of half-ripened shoots taken at the end of August and throughout September and inserted in pots containing sandy soil. For small growers this method answers very well, especially if a hand-light or bell-glass be utilised for covering them to assist the rooting process.

Fig. 1 represents on the left a half-ripened shoot of the Laurustinus that should make a capital cutting. On the right of the same illustration a cutting properly prepared is shown. In this case, it will be observed, the lower leaves have been detached with care and the stem of the shoot cut through immediately below a joint, as it is from the latter that the roots are emitted. The cuttings as prepared are then inserted half their length in sandy soil in pots, and special care taken to see that the soil is pressed firmly at the base of each cutting before being satisfied that this apparently simple operation is properly done. When this operation is completed the pot of cuttings should be represented as shown in Fig. 2. The cuttings should be watered in with the aid of a fine-rosed can and be subsequently covered with a bell-glass.

When propagated in a cold frame, make the bed of sandy soil quite firm; then proceed to insert the cuttings about 3 inches apart and in rows 3 inches to 4 inches asunder. Shade from bright sunshine and maintain the soil in a condition that is just moist, not saturated with water. Cuttings may be rooted in beds outdoors in October; but there is an element of risk in this procedure. The growths may also be layered in October or a month earlier.

The Daisy Bush, or Olearia, is an increasingly popular flowering shrub. There are several species that are mostly evergreen and are quite hardy. The genus is a near relation to the Aster, so well known to most readers. They are useful and handsome shrubs of easy culture, possess a good habit and are extremely free flowering. Olearia Haastii is perhaps the most valuable of the series, on account of its hardiness and its distinct beauty. This plant comes into flower in late August and flowers quite freely in perfection, when other shrubs are flowerless, for several weeks. In appearance this Olearia is not unlike a Box plant, the leaves being oval, leathery, shining green above and hoary underneath. This Daisy Tree is a native of New Zealand and grows 2 feet to 4 feet high, forming a compact bush with small Aster-like flowers that are borne in profusion. The Olearias are regarded chiefly as Australian and New Zealand shrubs, where they

2.—CUTTINGS OF LAURUSTINUS PLANTED IN A POT. THEY MAY ALSO BE PLANTED IN A COLD FRAME.

are found at high altitudes. Other good species are O. stellulata and O. macrodonta. These latter should be given a warm and sheltered quarter of the garden, as they are not quite hardy.

The Olearias are not difficult to increase. Propagate by cuttings of firm young shoots some 2 inches to 3 inches long; and these pieces may be obtained in large numbers from a well-grown bush. On the left of Fig. 3 a typical shoot of O. Haastii is shown. Note its sturdy character and its Box-like leaves of oval form. To prepare

3.—SHOOTS OF OLEARIA. THAT ON THE LEFT IS AS TAKEN FROM THE PLANT, AND ON THE RIGHT THE SHOOT IS PREPARED READY FOR PLANTING.

uch shoots as cuttings, quite half of the lower eaves should be removed, the stem cut through ust below a joint, and the cutting be completed nd ready for insertion as represented on the ight of this same picture. When detached ith a heel it is unnecessary to cut through the tem of the cutting.

A cold frame is an ideal place in which to root he Olearia. Here the cuttings should be nserted in sandy soil in September, dibbling hem in firmly half their length in rows, observing distance of about 2 inches to 3 inches between he cuttings and a similar distance between the ows. Arrange the cuttings in the rows so that hey alternate. Water in and keep fairly close luring the rooting process, and shade the uttings from bright sunshine. When rooted dmit air freely, ultimately removing the frame-ight altogether. The cuttings may be rooted n pots if more convenient, covering these with hand-light, &c. Plunge the pots in cinder-shes to keep the soil moist during propagation. The cold greenhouse may be utilised for this purpose. The Olearia may also be raised by seeds, sowing these in pots or in the cold frame n autumn or spring. D. B. C.

POTTING ARUM LILIES.

THE Arum Lily is known also as Calla æthiopica and Richardia africana. It is a noble-looking plant, extremely useful for growing in greenhouses and conservatories during the winter and spring months. Some cultivators allow the plants to rest in their pots during the summer-time and then repot them as new growth commences; others put out the plants in the open border and encourage growth throughout the summer. In the latter case it is necessary to lift and pot the plants before frosts come. It is not a wise plan, however, to put off the lifting until very late in the season, as these plants always do best when they can be left on the north or north-west side of a wall or fence for several weeks after they are potted and prior to their being placed under glass. So treated, the plants get well established in the pots and make a very strong, steady growth at the same time. Close confinement under glass immediately the plants are lifted and potted causes a weaker growth and is highly prejudicial to their flowering condition afterwards. The plants must not be lifted direct from the ground. A week before this is done the cultivator must drive in the spade straight down, about 1 foot from the leaf-stems and all round the specimens, in order to loosen the roots in the soil. At the end of a week the plants may be finally lifted and removed to a cool shed. It will not be possible to retain all the garden soil attached to the roots, nor is it desirable to do so. A good compost must be prepared for potting the plants in; but the mode of lifting recommended will assist greatly in preserving the roots, a very important matter. Provide a rich compost—fibrous loam two-thirds, leaf-soil and rotted manure one-third, and a peck of sand or washed grit to two bushels of the above. The pots should be just large enough to contain ample drainage material, the roots and a nice quantity of the compost. They should be well filled with new roots before Christmas; then a little feeding will be beneficial, but the feeding of the plants prior to the flush of flowers at Easter-time will be still more beneficial.

HINTS ON WATERING CUTTINGS.

CUTTINGS of bedding-out plants must be very carefully watered during the weeks immediately following their insertion. Although cuttings of such plants as Heliotrope, Alternanthera, Fuchsias, Ageratum and Lobelia are greatly benefited by occasional light syringings, those of Zonal Pelargoniums, Gazanias and Musk, if treated similarly, would damp off. The best way to supply the needful moisture to the latter is to use a watering-can without the rose and saturate the soil without wetting the leaves.

HOW TO PREPARE MANURE FOR MUSHROOM-BEDS.

IT is a fact that, owing to the bad preparation of the manure, many cultivators have failed to grow Mushrooms satisfactorily. It is never wise to be in a great hurry in collecting the manure and the making up of the bed. On the other hand, it is equally unwise to delay the making up after the manure is in a fit condition; neither should the beds be formed while a severe frost prevails, as the frozen outer portion of the manure would heat too violently afterwards. Manure from the stables must be collected every morning and spread out thinly in an open shed. Continue to add fresh manure every day until a sufficient quantity has been collected to form the bed. Every second day the material must be turned over; if this is not done overheating and burning will occur, and then the manure will be useless for hot-bed purposes. Two-thirds must be pure horse-manure and one-third the shorter portion of the litter, the long, unstained litter being picked out. When the right quantity has been collected, form one large, loose heap and allow it to remain so for two nights and one day; then spread out the material once more to allow the rank gases to escape, and it will be fit to form the bed. SHAMROCK.

4.—OLEARIA CUTTINGS PLANTED IN A COLD FRAME.

THE TOWN GARDEN.

CLIMBING ROSES.—These Roses now form a quite distinct feature in our gardens, and in future years they will be still more prominent. Even if a plant is left unpruned the following year, it will bear a fair amount of bloom and the inexperienced amateur will be quite satisfied with the results. The properly pruned plant, however, gives the most satisfaction. It is not the proper time now to do the real pruning of Rose trees; but in the case of climbing Roses growing on pillars, pergolas and arbours, much good may be done by cutting away some of the old wood and, furthermore, by tying out the young branches—those strong basal shoots which have made such good progress this year—so that they may mature through full exposure to the light and air. They will not ripen if they are left partly covered by the leaves and stems of the older wood. I daresay many readers of THE GARDEN have noticed how badly the ends of the young shoots of climbing Roses become blackened during the months of January, February and March, owing to exposure to frosts and cold east winds. The portion of the shoot so damaged is the unripe one; and my advice is, try and get all the shoots of the current year's growth as well ripened as possible now by exposing them to the air and sunshine, which will harden and mature at a time when Nature best does this work—in the autumn. There are many cool but very draughty places in town gardens, especially in narrow passages and corners with north aspects. Roses generally thrive very well there in the summer-time, but it is in the early part of spring when the youngest shoots of the trees suffer most.

THE PROPAGATION OF WINDOW PLANTS.—During this week as many cuttings as possible consistent with future requirements must be propagated. Those persons who are reluctant to spoil the beauty of the flowering plants, yet have, perforce, to depend upon them for the cuttings, cannot delay this work any longer without risking great losses among the cuttings owing to non-striking. It is now too late in the season to place newly inserted cuttings of Zonal Pelargoniums in the open air without any protection from the weather. The crudest frame, however, will suffice at the present time. Zonal Pelargoniums, Fuchsias, Gazanias, Heliotropes, Marguerites, Lobelias, sweet-scented Geraniums and Calceolarias may be placed in pots and boxes in such a frame. The Calceolarias may be inserted in a sandy bed made very firm in the frame itself. Where it is possible to procure cuttings of the above-named plants from the borders, there will be no need to deface the window plants. The cultivator must not use a very rich compost in which to insert the cuttings. If the soil is rich—made so with manure—some of the cuttings will fail to emit roots and will quickly decay. Others which root into the soil will grow very grossly, and thus be more difficult to keep through the winter on account of their susceptibility to damping off or being frozen. Some rotted manure may be used in the bottom of the pots and boxes, but it is unnecessary if the soil is of good quality. The pots and boxes must be well drained and the compost pressed down firmly in them; it should contain coarse sand, and some of the latter must be scattered on the surface of the soil so that a portion will be borne down by the stick when holes are made for the cuttings. The sharp sand keeps the soil open and allows water to run through it freely, but the coarse grains contain moisture, and as they are lodged around the base of the cutting, they induce the free emission of roots from it. Water must be given freely directly the cuttings are inserted, and also afterwards when the soil gets dry; but although light syringings will benefit the foliage of the other kinds, the cuttings of Pelargoniums would quickly damp off under the same treatment. AVON.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUIT DEPARTMENT.

VINERIES.—All late Grapes should be well ripened by the end of the month if they are to hang and keep sound for several weeks. Those which may be in a rather backward state will need to be pushed forward by employing extra fire-heat day and night and the ventilators kept a little open to encourage a free circulation of fresh air. Attend also to the roots, keeping them well supplied with water, both clear and liquid manure, until the berries have finished colouring. If the borders are outside, take care they do not get too soddened, and should the weather prove very wet, use glass lights or tarpaulin to protect them.

Early Vines which have been cleared of their fruit may be half-pruned and kept very cool, but do not let the roots get too dry at any time. Examine twice a week the bunches of Grapes which are ripe and remove any bad berries as soon as they are detected, thus preventing others from being spoiled, Attend to Muscats, and where the foliage is rather dense pull the leaves a little away from the bunches to improve and assist the colouring of the berries. All unnecessary lateral growths will need to be removed, and if the borders are inside a mulch over with a little sweet strawy manure will be helpful in preserving moisture at the roots.

Peach Trees.—The earliest trees if not dealt with already may be gone over and slightly pruned, removing pieces which have borne fruit and are thus of no further use. The young growths trained during the summer for fruiting next season will have a better chance to mature. Always preserve and train in the sturdy, medium-sized shoots when possible; do not syringe the foliage too much during dull weather, but syringe thoroughly in the morning so that the leaves may get dry by night. Late trees ripening their fruits should be gone over daily, and if for packing to travel long distances the fruits should be gathered a little under-ripe, otherwise they will not arrive at their destination in a satisfactory condition. As soon as the trees have been cleared of their crop, give the roots a good soaking and the foliage a thorough cleansing.

PLANTS UNDER GLASS.

Stove Plants.—The stove should at this season be thoroughly overhauled, the glass and woodwork well washed and the plants put in order for the winter. Any potting to be done ought to be attended to at once. Young plants of Pandanus, Dracænas, Crotons and many other kinds will benefit greatly by giving them a small shift at this season.

Begonia Gloire de Lorraine.—Plants will still be growing freely, and should be kept in an intermediate temperature and supplied with a little artificial manure. Clay's Fertilizer will be found very useful for feeding and keeping the foliage in a healthy condition if applied at intervals in a rather weak state and when the pots are filled with roots.

Chrysanthemums.—Attend to the requirements of these, feeding liberally if the roots are rather cramped in small pots. Attend also to the removal of useless side shoots and secure the growths retained to the supports before they get damaged by wind. Some of the early flowering varieties in pots may be removed to the conservatory, and will give a cheerful appearance for some weeks, there being many excellent coloured varieties to select from.

H. MARKHAM.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

COOL ORCHIDS.

ODONTOGLOSSUMS.—Most of the varieties of this interesting species require some attention at this season. Some may require repotting, and all will be greatly benefited by having the surface material removed and replaced by fresh. The plants should be turned out of the receptacles and have all the decayed compost carefully removed, preserving as many fresh roots as possible, but cutting clean away any that are of no further use. The new compost may consist of equal parts of peat and moss, with a sprinkling of finely broken crocks, charcoal and coarse silver sand. If the moss is very long and difficult to manipulate in small pots, it may be cut before using. The pots may be three-parts filled with crocks, and should be of sufficient size that no further disturbance will be required for two or three seasons. The plants should, when finished, be slightly above the rims of the pots, and the compost be made moderately firm and quite even.

Re-surfacing.—Where this will suffice, as much inert material as possible should be worked from about the roots with the aid of a penholder and be replaced with other rendered more fine than that used for potting, so that no damage is likely to accrue to these or others just emerging from the base of the plant. The same care in watering should afterwards be practised.

HARDY FRUITS.

Strawberries.—Plants layered some time ago will now be ready for putting out, which should be done before the roots get closely wound inside the pots, or, in case of turves, before they extend beyond these and get hold of the surrounding soil. Preparation of the site having been carried out as previously advised, the whole surface may now have a dressing of soot or lime (not both at the same time), or if burnt refuse is at hand this is an excellent fertiliser. Incorporate this with the soil by means of a rake, and when quite dry tread or roll until all is firm. The distance apart at which to plant depends somewhat upon the methods of culture followed. If the plants remain only two years, 2 feet between the lines and half that distance from plant to plant is ample; but if much longer, more space must accordingly be given. The natural fertility of the soil and the vigour of the varieties grown have an important bearing upon this point, for although moderately close planting may prove satisfactory in a dry season, it may be equally disastrous when an excess of moisture prevails.

Raspberries.—As the fruit is gathered, cut away the old canes, and, after thinning the current year's shoots to the requisite number, secure those reserved to the supports for future fruiting. Autumn-fruiting kinds must be protected from birds, previously removing surplus growths that the ripening process may be accelerated. Mulching applied to the roots of fruit trees some time ago may now be removed and the soil beneath lightly stirred as an aid to aëration.

VEGETABLE GARDEN.

Cauliflower Seed, in view of next summer's requirements, may now be sown upon an open, well-exposed site. Early London, Erfurt and Carter's Emperor are all good and fairly hardy.

Lettuces.—Cos and Cabbage varieties may also now be sown to stand the winter, although more than one sowing is advisable in case the plants get too large. Bath Cos and Hammersmith Cabbage are well-tried sorts. Both these and Cauliflowers should be sown thinly and be transplanted in good time to induce sturdy growth; if crowded in the seed-bed the plants are sure to succumb to frost and damp.

JAMES DAY.
(Gardener to Sir Malcolm M'Eacharn.)
Galloway House, Garlieston, Wigtownshire.

BOOKS.

French Market Gardening.*—The author is to be congratulated on the comprehensive, inclusive and thorough character of this work. Every point of importance in relation to the intensive culture of choice vegetables in winter and spring, and fruit in summer, in the Parisian market-gardens is impartially and effectively discussed and plainly set forth; so that anyone who may be seriously contemplating the taking up of this work may find in the pages of this book all it is possible to learn from reading alone. Having had a long experience in the growth of such products as are here dealt with, both under glass and outdoors, we are prepared to admit that it is quite possible to extract from the soil of England (in favoured localities and situations), as from the soil of France, by the aid of glass frames and bell-glasses (cloches) the enormous returns spoken of as produced by French growers, provided, however, that the same experience is brought to bear on the work and the same intense (almost slavish) industry is exercised here as in France. What the labour associated with the successful carrying out of this work means is very well described in a passage quoted by the author from a French authority, "Courtois Gerard," and is well worth reproducing. This was written in 1844. The conditions now, we think, are even intensified. "Everyone is awake before daylight and the women play their play as well as the men. In summer they are often up at two o'clock in the morning, and in winter at four o'clock, so as to be ready to sell the produce at the central markets. When they return home they attend to such work as weeding, packing, or pulling the vegetables for the following day's market. In all their work they are assisted by their daughters, and although the work is not exactly rough, it is nevertheless very tiring, because they are often obliged to kneel on the ground for the greatest part of the day regardless of the weather or season. The men commence to work immediately the women have gone to market. At seven in the morning they munch a crust while at work, and at nine o'clock all go to breakfast. In the summer-time they rest in the middle of the day for one or two hours, and all have dinner together as one family. After dinner each one works on again until supper-time, which takes place at ten o'clock in summer and eight o'clock in winter. During the evening the men water the crops, make mats, carry leaf-soil, manure, &c. At the same time the women arrange the produce in baskets, &c., for market, after which the waggon is loaded, so that everything shall be ready for market." We may add that the most rigid economy is exercised and that most of the sleep the workers get is on the cart-shaft in going to and coming from market. Our object in placing this picture of the hard and laborious lives of the Parisian market-growers before our readers is not to dissuade anyone from taking up this business, but to protect our readers from embarking on it without some knowledge of the hard work, sacrifice and risk entailed. Those intending to take up this business will be well advised to spend a year or two in a Parisian market-garden before they risk any capital or labour in the work. It is an old industry in Paris, dating back, so the author tells us, to at least the seventh century. Notwithstanding the above-mentioned difficulties and hardships attending this mode of culture, we hope before long that it will take deep root in England and grow into as large an industry as it is in France, where we gather that in the neighbourhood of Paris alone there are 1,300 growers cultivating about 3,000 acres under this system, the annual value of the produce amounting to the sum of half a million sterling, giving an

* "French Market Gardening." By John Weathers, price 3s. 6d. (John Murray, Albemarle Street, W.)

average income to each grower of about £400. The book is well illustrated, each illustration teaching some practical and useful lesson, and may be unreservedly recommended to those seeking information on the subject it deals with.

NEW PLANTS.

SOPHRO-CATTLEYA BLACKII.—This is said to be a hybrid between Sophora grandiflora and Cattleya hardyana, and has the colour of the former with a decided Cattleya shape, both in flowers and foliage. The blossoms are of good size, measuring about 5 inches in diameter. Shown by R. G. Thwaites, Esq., Christchurch Road, Streatham. Award of merit.

Lælio-Cattleya Golden Oriole Westonbirt variety.—This is one of the most beautiful Orchids we have ever seen, and is a wonderful advance on Golden Oriole itself, which is, of course, a glorious flower. The Westonbirt variety has the richest yellow sepals and petals it is possible to imagine, and, added to this, the labellum is a much brighter and more glowing scarlet-crimson than the type, the flowers also being larger. Shown by Lieutenant-Colonel Holford, C.I.E., C.V.O., Westonbirt, Tetbury, Gloucestershire. Award of merit.

Montbretia Pageant.—This is among the finest of these useful flowering plants we have yet seen, and in stature and vigour compares with the giant Prometheus. The flowers are large and of a rich, clear reddish orange colour, a nearly complete ring of crimson encircling the base of the segments. The inflorescences are freely branched and the plant one of the most effective of its kind. Exhibited by Colonel Petre, Westwick, near Norwich. Award of merit.

Montbretia G. Henley.—A very delightful novelty with flowers of large size and coloured a clear apricot yellow. The blossoms are well disposed on the elegant sprays, and we regard it as one of the finest self yellows yet raised. Shown by S. Morris, Esq., Thetford. Award of merit.

Gentiana ornata.—A delightful species of lowly alpine stature and a free, stoloniferous habit of growth that promises well. The 3-inch-high blossoms are about 1½ inches across, trumpet shaped, tapering, of a rich intense blue, and issue from tufts of linear glabrous leaves. The mature rosettes of leaves are about 2 inches long and are arranged in whorls. This beautiful plant was found by Mr. E. H. Wilson when travelling in China for Messrs. Veitch at an altitude of about 12,000 feet, and in much the same region as Meconopsis puniceus. Shown by Messrs. J. Veitch and Sons, Limited, Chelsea. Award of merit.

All the above were shown before the Royal Horticultural Society on the 31st ult., when the awards were made.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London, W.C.

AN INTERESTING HONEYSUCKLE FROM SOUTH DEVON.

Mr. W. Fitzherbert, Kingswear, South Devon, sends us a spray of Lonicera hildebrandiana, which is very interesting indeed. He writes: "I am sending you a flower-spray of Lonicera hildebrandiana. My plant is blooming very freely, having over fifty flower-clusters on it. The handsome blossoms are 4 inches long and measure 3 inches across at the mouth. They are first white and the tube reddish, but change later to gold and the tubes to bright orange. The leaves, which are evergreen, are 4 inches in length and 3 inches in breadth, and are very ornamental. My plant is growing against a north-west wall, where it only enjoys three hours' sunshine during the day. It was the only piece of spare wall I had at my disposal at the time I obtained the Honeysuckle, and remembering what the late Mr. Henry Ewbank said about it, namely, that it must have the sun shining on it continuously from the time it topped the horizon until it set, I had little hope of its blooming. However, the year after it was planted it had two flower-clusters, the next year twenty, and this year over fifty. It has slight protection in the winter, but has never been harmed, though the specimen in a glass house at Messrs. Robert Veitch's nursery at Exeter lost every leaf the winter before last and was almost killed, although protected by a glass structure. The scent of the flowers of this Honeysuckle is very delicious and is far stronger than that of any other member of the family."

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR OF THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Plants for Rhododendron beds (*E. M. M.*).—The Irish Heath (Dabœcia polifolia) would make an excellent undergrowth for your Rhododendrons, or, if you do not care for that, try Erica cinerea. The Delphiniums will be rather coarse-growing to mix with Rhododendrons, and some good Lily, such as L. pardalinum, would be preferable. Cornus Kousa and C. florida rubra are very good shrubs where they do well, but they succeed in comparatively few places, and are risky shrubs to plant without you are sure that they flower well in the district. There is little doubt but what C. Mas will flourish and flower well, for it flowers almost anywhere. If, however, you decide to plant the other two, they will grow in the soil you describe if it is well worked, but it is doubtful whether they will flower freely.

Plants for herbaceous border (*D. M. M.*).—The following plants should be of service to you for the border in question. Low-growing plants of a few inches to 1 foot high should include Achillea umbellata, A. Clavennæ, A. rupestris, all white-flowered; Antennaria tomentosa, yellow; Phlox amœna, rosy red; P. canadensis, blue; Iris pumila, in several varieties; I. nudicaulis, blue; Alyssum saxatile fl.-pl., yellow; Hepaticas in white, blue and pink; Primula rosea; P. denticulata; Saxifraga Wallacei, white; S. Guildford Seedling, crimson; Megasea cordifolia, pink; Adonis vernalis, yellow; Gentiana acaulis, blue; Anemones of the fulgens and hortensis class with tuberous roots; Arnebia echioides, yellow; Auriculas; Campanula muralis, C. Profusion; C. G. F. Wilson; C. pulloides, Cheiranthus alpinus, yellow; Aster alpinus, blue and white; Geum montanum, yellow; and many more. For the taller plants, Lychnis Viscaria plena, dwarf Flag Irises, single and double Pyrethrums, Campanula carpatica, C. c. alba, C. turbinata (in shades of blue), C. c. Riverslea (dark), C. Hostii, C. H. alba, Aquilegia cærulea and others could be employed with advantage, preferably always in free groups or patches.

Soil and situation for hardy plants (*A. H.*).—Primula pulverulenta may be regarded as requiring a moist position like P. japonica if its fullest development is desired. Scabiosa caucasica will grow freely in sandy loamy soils in the open positions of the border, and requires periodically to be raised from seeds in those districts where, after a prolonged flowering, it sometimes perishes. The Onosma prefers a fairly dry and sunny situation where a deep rootrun in sandy loam, without manure, can be given it. Full cultural instructions were given recently in THE GARDEN concerning Ostrowskia, and to this we refer you. Iris cristata and I. gracillipes are dwarf growing and almost frail members of the rhizomatous Irises, and should be grown in a fairly sunny spot in sandy soil. The Polemonium is never quite so happy as when grown in the rock garden in a mixture of sandy loam and mortar rubble or sandstone chips without manure. The Alliums are a very numerous set, and with many the trouble is how to get rid of some of them when once established. They are by no means all alike, and if you have any particular species in mind, please say so, and we will help you.

ROSE GARDEN.

Roses for two beds (*Grace Gardener*). The two varieties, Frau Karl Druschki and Mme. Abel Chatenay, would make two fine beds, and we can strongly recommend them. As to whether you have two varieties more nearly resembling each other is a matter of taste. If you preferred a pink to go with Mme. Abel Chatenay, we advise Betty or Lady Ashtown. Both are charming Roses and would flower freely all the summer and autumn. The two Polyanthas, Aschenbrodel and Mrs. W. H. Cutbush, would be delightful and make a continuous show. The other sorts you name we do not recommend. Charlotte Klemm is fine and makes a brilliant bit of colour. If you elect to plant this, then Ecarlate would be a splendid companion. It is even more brilliant than this very bright sort. Other splendid bedders are: Reds, General Macarthur, Richmond, Lady Battersea, Liberty; pinks, Caroline Testout, Mme. Leon Pain, Mrs. E. G. Hill, La France; whites and flesh, Prince de Bulgarie, Pharisaer, G. Nabonnand, Peace; yellow and buff, Mme. Ravary, Joseph Hill, Melanie Soupert and Edu Meyer. You will require more than six bushes to plant a bed 25 feet by 3 feet. To make a good show you would require two rows of plants, the latter 2 feet apart. Even if a single row the beds would take twelve plants.

Roses producing strong, sappy growths (*H. D. H.*).—Such growths are, as as rule, more objectionable in the Hybrid Perpetuals than the Teas and Hybrid Teas. In the latter groups they will most probably bloom towards late autumn and yield a cluster of beautiful flowers. With the Hybrid Perpetuals we prefer to stop such growths by pinching out their points as soon as it is seen they are not going to bloom; then in March they are cut down hard to one or two eyes, unless they are sufficiently hard and well ripened to suffer them to remain; but usually such growths are much too pithy to be serviceable. By removing them entirely in summer-time we check root-action, which is unwise. If they crowd the other growths too much, they can be tied out to a stake. We prefer to go over all our Hybrid Perpetual Roses and some of the Hybrid Teas in late September and remove the old growths, reducing the shoots to five or six of the soundest and hardest of the current season's growths. Sometimes we remove these soft growths at this time, supposing the plants to have sufficient well-ripened growths to enable us to dispense

with them. If you remember that one well-ripened growth will produce three or four new shoots next year, you will readily see that five or less such growths will be ample for one bush to carry; therefore, there is no need to retain soft, pithy wood.

Sample of soil for Roses (*Lady M. E. C.*).—We fear you would have much difficulty in growing good Roses in the soil of which you send us a sample. There is an entire absence of humus, and it appears little better than ashes. We certainly advise you to have the soil excavated to a depth of 2 feet in the beds or borders where you propose to plant your Roses, and replace with the best loam you can procure locally. Perhaps you could arrange with certain contractors or builders to deliver some top soil such as they remove from a meadow when about to commence building operations. A few cartloads of such soil would enable you to grow splendid Roses. You would need to incorporate some good farmyard manure, or Wakeley's Hop Manure, which is an excellent substitute, and some half-inch bones also added would be advisable. This latter is a very enduring fertiliser, and is far safer to use than ordinary chemical manures. We recommend you to plant mainly bush Roses, but a few standards and half-standards interspersed would give a nice effect.

Roses for garden and exhibition (*Caroline Testout*).—We think the following selection of Hybrid Teas will meet your requirements. William Shean is a very good Rose, and we should certainly include this variety. Other fine sorts are Florence Pemberton, Clara Watson, Earl of Warwick, General Macarthur, Joseph Hill, Joseph Lowe, Lady Ashtown, Lyon Rose, Mme. Segond Weber, Mrs. Theodore Rooseveltand Princesse Mertchersky. A dozen good standards of Hybrid Teas and Hybrid Perpetuals would be as follows: Caroline Testout, Mamie, J. B. Clark, Hugh Dickson, Charles J. Grahame, Killarney, Charles Lefebvre, Frau Karl Druschki, Richmond, Mrs. R. G. Sharman Crawford, Gustave Grunerwald and Laurent Carle. Six good pillar Roses of vigorous growth are Mme. Alfred Carrière, Climbing Caroline Testout, François Crousse, Mme. Hector Leuilliot, Conrad F. Meyer and Ards Pillar; or if you desire ramblers to run up tall poles and eventually to arch over the paths, then we should advise Hiawatha, Lady Gay, White Dorothy Perkins, Goldfinch, Rubin and Blush Rambler.

Rose Gloire de Dijon not growing (*Perplexed*).—The wood of the Rose plant appears to be healthy. Probably the roots were damaged when transplanting, or they are in uncongenial soil. We advise you to cut down all the growths to within 1 foot of the ground at once; then keep the plant well syringed morning and evening. If the roots are healthy, you will soon find that new shoots will commence to start out. The soil around the plant should be just lightly forked up, and if you have reason to think the roots are not in well-moistened soil, give the plant a good watering.

Rose William Allen Richardson from cuttings (*G. H.*).—The cuttings will root freely at this season of the year if provided with a little bottom-heat. It would be best to prepare some 5-inch pots with plenty of crocks and sandy soil; then dibble the cuttings around the edge, placing a very small inverted pot in the centre to keep the foliage well up to the light. The pots are then plunged in some Cocoanut fibre upon a gentle hot-bed or under a propagating frame in the greenhouse. Some fresh stable manure well turned and then made into a hot-bed would answer best, but be careful the violent heat subsides before placing the pots upon the bed. Another good plan and a very simple one is to make a shallow frame in full sun. Place about 1 foot of fresh stable manure in the bottom, then about 3 inches or 4 inches of sifted loam, and on to this 2 inches or 3 inches of silver sand. Press firmly and well water; then next day insert the cuttings about 1½ inches apart. Cuttings are made from the growths that have just borne blossoms. They should contain two eyes or buds. Remove the leaf from the bottom eye and cut the wood level just beneath the eye. The top leaf is left on the cutting. After dibbling in sand, give the cuttings a good watering and keep them sprinkled every hour during sunshine for about a fortnight. In about a month the cuttings may be potted off or planted outdoors in gritty soil, and kept shaded with canvas screens for a week or more and gently sprayed at frequent intervals. Some bell-glasses or cloches would answer as well as a frame, but a gentle bottom-heat is needed. Be careful to shade the glass by painting it with some flour mixed with water; this adheres better than whitewash. Should there be any branches of young wood near the ground, these could be layered in the same manner as Carnations.

Rooting standard Briars (*B. Billericay*).—The method of rooting these young Briars is novel, but it is not one we should advocate, for the simple reason that the Briars would take too long to gain strength, and a miserable, weak standard Rose is about the most ugly thing one can see in a garden. The side shoots one inserts the buds into should be nearly as thick as one's little finger. We take it yours are nothing like this. We agree with you that the large knob often sent with a standard Rose is anything but desirable; but this shows an error in trimming, as most of this should be cut away, then plenty of fibrous roots are formed. If you care to send us one of the Briars later on, we will give you our opinion of the same.

Roses failing to develop their flowers (*M. F. B.*).—Several of the buds enclosed were from Comtesse de Serenye, a notoriously bad sort to expand. Others appeared to be some of the very dark Roses, such as Jean Liabaud, which in such a season as we have had are almost sure to fail to develop, as their blooms are so very double. A few buds have rotted on the plants. This has happened in many gardens, especially upon such double varieties as Queen of Spain, Mildred Grant, &c. We should advise you to obtain some of the lovely Hybrid Teas, whose flowers never fail to unfold, as they are not overcrowded with petals. They are far and away the best tribe for the novice to grow, and will provide you with bloom the whole of the summer and autumn.

Roses with curled foliage (*M. F. D.*).—The foliage you send has been attacked by the larvæ of the leaf-rolling sawfly. The sawfly appears in May and early June; the colour is black and shiny. The eggs are laid on the leaf. The larvæ are all green. They fall to the ground when full-grown, enter the soil in August and at once form a cocoon, in which they remain until February or March. The best remedy is to remove the injured foliage immediately they are observed and destroy them. No spraying would seem to be really effectual. Where the plants are old it would be advisable to transplant them into fresh soil, and in doing so have the roots well washed, as this pest is often found attached to the roots of the Roses and may even be introduced to one's garden in this way.

THE GREENHOUSE.

The treatment of Chrysanthemum buds (*A. W. B.*).—If the side shoots were removed now the crown buds would probably not swell, because the shoots have made too much growth. It would be much the best plan to retain three side shoots from each main stem, *i.e.*, each stem bearing crown buds, and secure terminals in due course. You may then disbud or allow all buds to open. Those specimens which are not disbudded will bear beautiful sprays of blossoms.

Sowing seeds of an Epidendrum (*F. L.*).—Take off the seed-pod which is just splitting and lay it in a piece of paper in a dry place for a few days. Directly the seeds are shed they should be sown, as, owing to their minute character, Orchid seeds had better be sown as soon as they are ripe. The best way to treat the seeds is to sprinkle them on the growing sphagnum of a pot which contains a plant. If you have a plant of the Epidendrum itself in which the sphagnum is in a good condition, you may sow seeds thereon; but, if not, any Orchid that thrives in the same temperature will do. The sphagnum is in the best condition for seed-sowing in a month or so after the pot has been top-dressed with it, as it will be then starting freely into growth. This is better than old-established moss. Of course, care must be taken not to wash the seeds away in watering, while the sphagnum must not be allowed to get dry. When the young plants are large enough to handle, they must be pricked off in a mixture of peat and sphagnum, the latter predominating. As the roots are so delicate, the peat and sphagnum for this purpose must be cut very fine.

How to grow the Amaryllis (*Arthur H. R.*).—In the first place, the Amaryllis does not require stove treatment, as at any season the temperature of an intermediate house is quite sufficient for it. When repotting is needed it should be carried out directly the flowers are past, but annual repotting is not considered so necessary as it once was; indeed, we have this season seen some collections in good health that had not been repotted for three years. It all depends upon the condition of the roots, as, if they are in a good state, the bulbs may be allowed to remain undisturbed. In this case they must be given an occasional stimulant during the growing season. After flowering, whether repotted or not, the plants must be encouraged to make good growth. Then, by the end of July or so, they may be fully exposed to sun and air in order to ripen the bulbs. At that time they should be watered as before till they show signs of going to rest, when the supply of moisture must be lessened. When totally dormant they may be kept quite dry or nearly so till a month or so of the New Year has passed. Then under the influence of a little additiona warmth and increased moisture the plants will start into growth. In a structure with a minimum winter temperature of 45° Amaryllis may be safely kept at that season.

Mignonette in frames (*Ceris*).—Some forms of Mignonette are far more robust and of much stouter growth than others, so that they should always be chosen for growing in pots. Perhaps the most popular of all for flowering in pots is that known as Machet. Seeds may be sown any time from now to the month of March, a suitable compost being good fibrous loam, rendered porous, if it is of too adhesive a nature, by a little leaf-mould and sand. Five-inch or 6-inch pots are a very suitable size in which to sow the seed. It is a good plan to sow the seed in the pot in which it is to grow, as Mignonette transplants badly. The pots must be effectually drained and filled to within half an inch of the rims with the potting compost, pressed down firmly and made level. In sowing the seed it must not be done too thickly, as from three to five plants are quite sufficient for pots of the sizes named. Still, more seeds than this must be sown, and they can be thinned out later on. The pots should be stood in a cold frame or quite a cool greenhouse. They must have a good, light position and be so situated that there is a free circulation of air around the plants. As the pots get furnished with roots, an occasional dose of liquid manure will be helpful.

Plants dying in conservatory (*Riada*).—It is quite impossible for us even to hazard a guess as to the cause of the plants in your conservatory being so badly affected. At first we were inclined to think that the water was at fault; but as the plants in the greenhouse have not suffered, this theory is disposed of. Whatever it is, the cause is undoubtedly local, and a practical person on the spot might be able to put his finger on the origin of the trouble. In what way is the water stored? We ask this because water from a new galvanised cistern will often prove injurious to plants, and also from tubs or drums which have contained any poisonous wash or paint, tar or paraffin. Watering the plants when the sun is on the house will not affect them in this way.

Plants for autumn flowering (*Chrysanthemum*).—We do not advise your friend to entirely discontinue the culture of Chrysanthemums, as they are so valuable for decorative purposes. At the same time, there are many other plants that flower during the last two or three months of the year, so that there is no need to limit the display to Chrysanthemums alone. Among them may be especially recommended the Tree Carnations referred to by you, and also Salvia splendens, with scarlet flowers, and Salvia azurea grandiflora (syn. Salvia Pitcheri), whose blossoms are of a delightful shade of blue. Zonal Pelargoniums, too, flower beautifully in the winter if the plants are grown in a fully exposed spot during the summer. Impatiens Holstii, a shrubby member of the Balsam family, is now represented in our gardens by many varieties whose blossoms range in colour from white to deep red. They flower freely during the autumn and winter months. Begonias, too, of several kinds are available, notably the socotrana hybrids of Messrs. Veitch, Gloire de Lorraine in its several forms, and Begonia semperflorens gigantea, which flowers freely throughout the greater part of the year. What may be regarded as ordinary greenhouse plants for autumn and winter flowering are also available. They include Cyclamen, Cinerarias, Primulas, Roman Hyacinths, Paper-white Narcissi, Bouvardias, Lilies of the Valley, Arum Lilies, &c. More uncommon plants that bloom at that time of the year are Calceolaria Burbidgei, Cheiranthus kewensis (a changeable-coloured Wallflower), Eupatorium petiolare, Leonotis Leonurus, Reinwardtia trigyna and Tecoma Smithii. Hard-wooded plants include Heaths, represented by Erica caffra, E. hyemalis and its white variety, E. gracilis and E. Melanthera, Epacris of sorts, the deliciously fragrant Daphne indica and Azalea obtusa, with its white variety alba. The little red blossoms of this Azalea are at their best before any other member of the family. The Lilacs and Wistarias recommended by you would form a charming feature from February onwards, but they cannot be counted upon to be at their best in early winter.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

TREATMENT OF VINES IN INDIFFERENT HEALTH.

THE time has now arrived when this important question will force itself upon many owners of Vines in indifferent health—as to which is the best course to pursue to bring them round again as soon as possible into a vigorous and fruitful condition of growth. Among gardeners there are two well-known methods advocated, around which controversy has waxed warm for generations, and still the question remains open and in abeyance.

One method advocated by a certain school of gardeners is to destroy such Vines and replant young ones in a new border. No doubt in many respects the advocates of this method of renewing vineries with healthy and fruitful Vines stand on fairly firm ground. They argue that in this way in the course of a few years their vineries are re-established with healthy, vigorous and fruitful Vines, which not only produce heavy crops of excellent Grapes, but such young Vines are justly an object of pride to the gardener who has had everything to do to make their growth a success, as well as a source of pleasure to his employer and friends who admire them. But the time comes, and sometimes rather quickly, when the same Vines show signs of distress from one cause or another, especially in cases where they have to be cropped heavily, and the question again presents itself: What is to be done now? Are we to go over the same ground again at so much cost in labour, money and the loss of a crop of Grapes (of any consequence) for a matter of three years, and possibly, by some mischance in management, we may have to travel over the same ground even again?

I think there is a better way; it is an old, well-trodden way, too, along which most of our oldest and best Grape-growers have travelled for long. It is the way of infusing new blood and new life into the system of the weakened Vines, by partly replanting the old roots in new soil and resting the Vines for a season, by exacting from them a light crop only in the summer immediately following their replanting, thereby forcing the energies of the new masses of roots which will be formed in the new soil into the building up of a new constitution of the Vine in the way of stronger and firmer spur and leaf growth for years afterwards, followed, as a matter of course, by improved crops of higher quality and better-flavoured Grapes. It is, I think, generally admitted that old Vines produce much richer-flavoured Grapes than young ones.

I have been prompted to write these notes on this subject by the wonderful object-lesson shown by the twelve splendid bunches of Black Hamburgh Grapes, the produce of the old Vine at Hampton Court, which were exhibited at the Royal Horticultural Society's meeting at the Horticultural Hall on the 31st ult. This old Vine, we are told, is close on 142 years old, and has been familiar to all visitors to this stately and glorious old Royal palace and its gardens for many years. The Vine up to the last few years has been more the object of veneration and wonder, by reason of its great age and of the many hundreds of small, dust-covered bunches of Grapes it annually produced, than from a point of high culture, penned up as it then was in a small box of a vinery, and its doom has been predicted by public writers for generations past.

Since His Majesty's (whose property the Vine is) accession to the Throne the old Vine has received more generous treatment. A new, loftier and larger glass house has been built over the Vine. The old flues for heating which mostly covered the inside of the border have been removed and their places taken by hot-water pipes. The space occupied by these old flues (the foundations of which laid deep down in the border) has been filled with the best Vine soil procurable, and instead of the public, who visit the Vine in many thousands a day in the summer-time, having access to the vinery, they are now only permitted to view it from a glass lobby. This arrangement effectively protects the Vine from the dust and nuisance previously experienced.

The quality of the Grapes shown on the occasion referred to, both as regards size of bunch, berry, colour and bloom, was generally remarked at the meeting by those well qualified to know to be as good as, if not better than, any examples of the same Grape shown at any fruit show this year, and great credit is due to His Majesty's head-gardener, Mr. McKellar, who has charge of the Vine, for the initiation of the new treatment, and to his fruit foreman and Mr. Jack, on the latter of whom the responsibility of the immediate care of this grand old Vine has rested for upwards of thirty years.

I could cite many other cases equally favourable to this system of rejuvenating old Vines, but I think enough has been said to justify the partly replanting of old Vines in indifferent health rather than the uprooting of them and the replanting of young Vines. There are many amateurs who, no doubt, would thus wish to renovate their weakly Vines, but do not know how to go about the work. In a future note I will endeavour to show how it is done. X. Y. Z.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

September 20. — National Chrysanthemum Society's Executive and Floral Committees' Meeting at Essex Hall, Strand.

September 21. — National Dahlia Society's Late Exhibition at the Royal Botanic Gardens, Regent's Park.

Sending fruit by post or rail.—At this season we receive a great many packages containing fruits for naming, and we wish to draw our readers' attention to the necessity of these being properly numbered and securely packed in stout boxes, preferably those of tin or wood. It is useless to send soft fruits, such as Peaches, Plums and Grapes, in cardboard boxes unless these are of extra thickness, as by the time they reach this office they are usually smashed and the contents reduced to pulp, postal packages generally being worse than those sent by rail. Care should also be taken to pack the fruits so that they cannot move about inside the box.

Fremontia californica at Winchester.—It may be of interest to your readers to learn that a fine specimen of the above-named uncommon tree, growing in a town garden in Winchester, has passed the last severe winter without a twig being injured. For a month or more in June and July the upper part of the tree was a mass of bright yellow flowers. The specimen is growing on light, chalky soil in a south-eastern angle of a walled-in garden. It is of pyramidal shape and about 12 feet by 5 feet, very vigorous, with dark green foliage. The flowers were clustered on the upper part of the tree, and, being visible from the road, were a source of much interest to observant passers-by.—HILLIER AND SONS (Landscape Gardeners), *Winchester.*

A good vegetable show.—What can be done in a limited way to create a remarkably fine exhibition of vegetables was evidenced in the Lowfield Nurseries, Crawley, Sussex, through the generosity and public spirit of Messrs. J. Cheal and Sons, on the 8th inst. Through the issue of a small schedule of sixteen classes, only two of which were for collections, the rest being for single dishes, a really superb lot of products was collected, grown by gardeners, amateurs and cottagers for some twenty miles area round Crawley. The competition was also most remarkable, running frequently up to twenty exhibits in one class. Potatoes, Onions, Carrots, Parsnips, Cabbages, Cauliflowers, Celery, Beets, Turnips and other products were wonderfully good, and in the collections some of those were specially so. We have rarely seen in such a show higher tribute paid to the merits of vegetables, whether as exhibits or as food. The firm treated all exhibitors and visitors to a liberal luncheon, and later in the day the members of the Crawley Gardeners' Society, eighty in number, after visiting the show and the extensive nurseries, were entertained at tea.

Scottish Horticultural Association.—The monthly meeting of this association was held in their hall, 5, St. Andrew Square, Edinburgh, on September 7. There was a good attendance, presided over by the president, Mr. James Whytock, Dalkeith Palace Gardens. The exhibits were not numerous, being mainly composed of early single Chrysanthemums sent by Mr. Thomson, Dean Gardens. Several of these were favourably mentioned by the floral committee, and one received a first-class certificate. This was afterwards named James Whytock. The sport from Rose Dorothy Perkins called Christian Curle was shown by Messrs. Cocker and Sons, Aberdeen, and received an award. The paper of the evening was on "The Smaller Hardy Bulbous Plants," and was given by Mr. S. Arnott, Dumfries, author of "The Book of Bulbs, &c." In it Mr. Arnott dealt with the smaller hardy bulbs, such as Snowdrops, Chionodoxas, Scillas, Puschkinias and others of that class, pointing out their value and advocating the larger use of the lesser-known bulbs. The cultivation was also referred to and several suggestions made regarding species and varieties. The lecture had an excellent reception and elicited a good discussion. Mr. Arnott was accorded a hearty vote of thanks.

Agricultural statistics.—The Board of Agriculture and Fisheries has just published a volume dealing with the prices and supplies of corn, livestock and other agricultural produce. This can be obtained from Messrs. Wyman and Sons, Limited, Fetter Lane, London, E.C., price 8½d.

THE EDITOR'S TABLE.

SWEET PEAS FROM HAMPSHIRE.

Mr. B. B. Hagen, Sway House, near Brockenhurst, Hampshire, sends us a large and representative collection of Sweet Peas. Judging by the size of the flowers these had been well grown, but the rough weather had to some extent marred the blossoms.

TWO RARE DELPHINIUMS FROM SCOTLAND.

Dr. McWatt of Morelands, Duns, N.B., sends us spikes of the two rare Delphiniums cardinale and Zali. Dr. McWatt writes: "These two species being difficult to grow and flower no doubt accounts for their rarely, if ever, being seen in Scottish gardens. Delphinium cardinale, a native of California, I find best to grow as a biennial. It is the plant of all others which one requires to guard against slugs. When properly grown it is a very pretty plant, with branching spikes covered with bright scarlet flowers which have slightly yellow petals. It grows from 3 feet to 4 feet in height, and as it has long, fleshy roots, it should have a good depth of soil. During the winter it should either be kept in a cool frame or, if in the open, be covered with a side-light or an inverted pot, so as to keep the roots fairly dry to prevent them from rotting. It flowers late. Delphinium Zali, being of a free branching habit and covered with beautiful pale sulphur flowers, is one of the finest plants we have in the garden at this time of the year. The same treatment applies to this plant; but as it is so late in flowering I always start it in pots in a cool house or frame and plant out in the sunniest position after it is 1 foot or more high. It must have sun, otherwise the flowers will never open. Out of some thirty plants, owing to the lack of sunshine I have this year managed to flower only three. Both these plants well repay a little extra care and attention. I send you spikes of both in flower, also two spikes of Zali (the flowering spike is fully 6 feet high and well grown). In the other you will see from the state of the flowers, which are going back without opening, the truth of my assertion that the plant requires a great deal of sunshine to develop the flowers properly."

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

The scarlet-fruited Elder.—Having regard to the wide popularity which ornamental berried shrubs and plants have obtained, I have wondered that this really very handsome berried Elder is not more commonly planted. Possibly "D.'s" note may help to draw attention to it. I first saw a really fine specimen of it in a roadside garden near the church at Witley, Surrey, several years since, and I believe it is still there. Usually I was there about the middle of July, and by that time the numerous clusters of berries of a rich scarlet hue were fully ripe, thus showing that it produces them exceptionally early. If planters or admirers of berried shrubs will plant this Elder more and the glaring yellow-leaved Elder less, their shrubberies will greatly benefit. Where there is ample room, planters may do worse than devote at least one large bed or border to berried shrubs or plants alone. We have so many full of interest and beauty well worthy of such a position. Will "D." kindly furnish a list of suitable plants?—A.

Garden decorative Dahlias.—While the National Dahlia Society is conducting trials of Cactus and other Dahlias outdoors with a view to determine their garden decorative value, and the Royal Horticultural Society has a trial at Wisley of garden Dahlias not of the show Cactus order, it is evident that these trials are likely to be materially handicapped by the season, which is peculiarly obstructive to Dahlia flowering. Having regard to the effect of such weather on these beautiful autumn flowers, I was agreeably surprised to find Dahlias of all sections blooming so finely at Messrs. Cheal and Sons' Lowfield Nurseries, Crawley, on the 8th inst., but being much more southerly than some growers they may have suffered less from the weather. I went over all the sections other than the large shows and fancies, these being beside the mark, specially to note any that presented distinctive decorative habits, and the following as seen at Crawley can be relied on to be really good, bright and effective. Of Cactus varieties, undoubtedly one of the very best I have yet seen for this purpose is the Hon. Mrs. Greville, apricot yellow, stems stout, erect, and flowers borne above the foliage admirably. A few others very good were Rob Roy, crimson; Pearl, rich pink; Countess of Lonsdale, salmon carmine; Mr. F. H. Cook, orange scarlet; Star, apricot; and the old but charming Mary Service. Some growers who realise the importance of getting good garden decorative forms rather than securing mere exhibition flowers, named to-day and gone to-morrow, are now, as Messrs. Cheal are doing, turning their attention in the desired direction. Very beautiful indeed, perhaps most of all in gardens, are the singles, of which the firm has wonderfully beautiful varieties. Very striking is Owen Thomas, crimson, broadly margined gold; Brilliant, crimson scarlet, with gold round the eye; Stromboli, black, with white margin; Kitty, rosy mauve; Formosa, brilliant scarlet; Glencoe, pale yellow; Eric, coppery orange, shading to mauve; Mikado, red centre, pale yellow margin; William Parrott, scarlet; Butterfly, pure white; Mrs. Bates, pink, suffused rose; and Royal Sovereign, crimson maroon, suffused white. These are all truly beautiful, whether in the garden or as cut flowers for vase decoration. A few equally floriferous and effective Pompons are Fashion, orange buff; Mars, scarlet; Crusoe, white, tipped rose; Daisy, salmon terra-cotta; Vergo, pure white; Montague Wootton, deep maroon red; Annie Holton, crimson, tipped white; Mary, soft primrose; Emily Hopper, clear yellow; and Cyril, deep maroon crimson—really a splendid selection. So far the best of all the Pæony-flowered forms, and here of medium height, is Glory de Baarn, rosy pink, but this section needs much improving yet.—D.

Greening seed Potato tubers.—When freshly dug Potatoes are exposed to the light, the sudden change from darkness to light, also the very thin nature of the skins just then, causes greening to follow quickly if the exposure endures for some twelve hours. It is assumed that through such exposure the skins thicken or harden and thus become more disease-resisting in the store. But if freshly lifted tubers are gathered the moment they are dry and are placed in the store, the skins will soon become thick and hard, but unless exposed to strong light they will not green. Tubers so treated, when exposed to the air more fully in the late winter to produce

prouts, will not produce longer or weaker sprouts han will those thoroughly greened by exposure the light as soon as lifted; indeed, the results ill be the same. Where the tubers push remature shoots which have later to be emoved is when removed from the air; though ark, the temperature of the store is too high, us creating early growth. This in its effort to d light elongates in a blanched form rapidly d causes a great waste of strength. It is best fully expose all seed tubers to the air from e first lifting.—A. D.

Verbascum pulverulentum.—I am debted to M. Correvon for his note upon the ullein figured in THE GARDEN, page 422. eds of my stock of plants came to me originally om Bithynia, one of the homes of V. olympicum, V. olympicum. The late Rev. C. Wolley-Dod, ith whom I was in frequent correspondence, d some seeds from me, and was interested in e question of its nomenclature. He wrote to e when his plants flowered to the effect that ey were not V. olympicum, and that he had bmitted them to an authority on the genus, no stated that they were V. pulverulentum or ccosum, a native species, an opinion in which r. Wolley-Dod, who was himself a high thority on hardy flowers, agreed. There is me crenation in the leaves of my plant, pecially in the stem ones, and this agrees with e description of V. pulverulentum given Babington and others, who describe em as "obscurely crenate." I hope, wever, to submit the plant to an autho- y once more and to state the conclusion en arrived at. There can be no question to the beauty of this Mullein, and I ways like to keep several plants in my rden.—S. ARNOTT, *Dumfries.*

Crinum yemense.—This bold d handsome Crinum is supposed to be variety of C. latifolium from Tropical ia. The latter species is figured in the Botanical Register," t. 1297. It cannot recommended to all, but only to those o have a moderately mild climate. At asnevin it flourishes at the base of a eenhouse wall and is never troubled the frost. In some points it is perior to C. Powelli album, for it starts flower a month earlier and is more ntinuous. The stout scapes rise to feet in height, and bear from ten to enty flowers on each umbel. The ianth tube of the flower is reddish and inches long. The limb is horizontal d the same length. When opening the gments are tinged with red on the outside, t are pure white when the flower is fully en. The leaves are 2 feet to 3 feet long, ffer, and of a much deeper green than C. welli.—C. F. BALL.

Primula obconica.—I should like to rn whether, other than in the one particular e referred to below, anyone has found flowers Primula obconica to assume a double form. e instance in question is in the gardens of ombe Court, Kingston-on-Thames, where Mr. Smith, Lord Ripon's gardener, has a batch, ny of which have flowers distinctly double character. Just now the plants are carrying flowers, but at least a dozen out of the ch had flowers including a surplus of petals, h as is found in the semi-double and double wers of P. sinensis. It is interesting to find other member of the great Primrose family s showing its amenability to this form of al variation. So far, however, the fertile ans seem perfect, but the anthers are very down and few in number; obviously some e become converted into petals. Primu- acaulis, veris and Auricula have produced merous double flowers. P. obconica seems on way to join P. sinensis and those named in sportiveness.—D. [Several years ago we saw illustration of double flowers of P. obconica.—]

The winter in New Zealand.—We have this year had a remarkably mild autumn and winter, even for our semi-tropical climate, and this has caused the nurserymen much trouble by unduly prolonging the flowering season of Roses, &c., which have been very reluctant to ripen off. In my own garden a bed of Delphiniums, instead of dying off at the usual time, made strong growth and produced a fine third crop of flowers. I intended sending you a photograph of them as they grew, but put off taking it until I could get some orthochromatic plates, and meantime a gale beat the flowers down and spoiled them, especially the tall spikes. However, I gathered some and photographed them on an ordinary plate, which, of course, does not show the colour. I forget the exact date, but it was during the last week of June, the middle of our winter, and I send you the photograph for what it is worth, thinking it may interest you. I am a subscriber to THE GARDEN and find it very interesting, though out here our gardening is practically all outdoors.—A. E. G., *Auckland, New Zealand.* [Unfortunately, the photograph was unsuitable for reproduction.—ED.]

Mosses in Scotland.—I can recommend this corner of the British Isles to Moss-hunters—the whole place is carpeted with Mosses in great variety; it must surely be one of the wettest areas, and this summer has been a veritable shower-bath. It will interest some of your readers to learn that all over the district Tropæolum speciosum grows like a weed, not only in north aspects, but in full south sun—or, rather, in that direction where one might expect to find the sun! Also it is well to note that Smilax grows happily, even rampantly, outdoors and receives no winter protection.—E. CURGWEN, *Borrodale, Inverness-shire, N. B.*

THE RARE CRINUM YEMENSE.

Disease in Lilium candidum.—As I see in a recent issue that one of your correspondents was enquiring about the white Lily disease, I send you particulars of a successful treatment we have followed. All our Lilies went off about three years ago in a long border. We dug them up, burnt the worst and kept all the others for about six weeks in a bag containing flowers of sulphur so that they were thoroughly covered with it, then dug the ground well, added fresh manure and replanted in the same border. Directly any sign of disease shows itself they are again treated in the same way, and I now have beautifully strong plants. Can you tell me at the same time what I must do to get small Onions for pickling. I have sown the Silver Skin thickly, and they have not been thinned, to keep them small, but the gardener says they will not keep if dug before they are ripe, and they are already much too large. Cannot they be dug for pickling when quite small?—MRS. L. M. [Onions for pickling should have finished their growth, or nearly so, before they are lifted, otherwise they will not be crisp when pickled, although they might keep very well if pickled as soon as lifted.—ED.]

Roses in Surrey.—I wish we could say the same regarding a good Rose season here as they have had in West Lothian. A more wretched season I have never experienced; certainly the plants have made good growth owing to the wet, but as soon as the blooms began to come out down came the pelting rain and spoilt them. Hundreds rotted and fell off, and it has been going on in this way right up to now; but there is one Rose that has stood the test better than all of them, viz., Mme. Abel Chatenay, which with us is always good, and another that must take second place is Mrs. David McKee. Caroline Testout has done very well, but last year this Rose was absolutely grand. White Maman Cochet has stood the weather very well; on account of its hanging propensities the rain did not settle in its blooms. Liberty has been very nice in colour, and we have some good blooms now; it seems to like a cool season. At West Lothian your correspondent says only an occasional bloom of Bessie Brown opens well; in all the gardens that I have visited I have never seen a good bloom of this Rose yet—that is, grown as a garden Rose; it is only suitable for exhibition. The Tea Rose Mme. Constant Soupert has made splendid growth with us this season; we find it grows just as well on its own roots as budded. Dean Hole does not like so much wet; it makes a fine standard, but if there is any mildew about it soon gets it, which is a great pity. The climbers Dorothy Perkins, Crimson Rambler and many others have grown and flowered just the same as in other years, only their blooms have been spoilt by so much wet. —W. R. GILES, *The Rosary, Carshalton, Surrey.*

SWEET PEAS AT MARK'S TEY.

ENTHUSIASTIC growers of Sweet Peas always endeavour to find the necessary time to visit one or two at least of the nurseries of those great firms that make a speciality of the Queen of Annuals, and those who were able to get as far as Mark's Tey to see the trials of Messrs. Dobbie and Co. this season would assuredly be more than delighted with their outing. There are many producers and distributors of Sweet Pea seeds, all of whom spend much time and money in making their selections and in keeping their stocks as true as is possible with a flower that has of late years grown more and more fickle as it increased in popularity, but none is more assiduous in such important attentions than this well-known Scottish house. Mr. Andrew Ireland, who has charge of the firm's trials, is as keen on Sweet Peas as any man in the country, and what he does not know about them and their vagaries is scarcely worth knowing. It is a matter of absolute indifference to him whence a variety has emanated; if it is a good one, that is sufficient, and it is grown with as much, and in some instances perhaps more, care as the finest of his firm's introductions.

The first thing that forcibly impresses itself upon the visitor is the remarkable excellence of the plants. They are all raised in pots and planted out at distances of 15 inches or 18 inches, and one follows row after row and seeks in vain for the expected gap or the diseased specimen. Then one commences to pick out the rogues and is further impressed with the wonderful trueness of the bulk of the stocks. It is true that rows will be found that are as glorious mixtures as one could secure if a packet of mixed seeds were bought and sown, but these are left simply

because the time and labour of roguing would be so serious that it could not possibly be made profitable. If the varieties in such a row are good as far as colour is concerned, and fine seeds set, they are gathered and added to the mixtures; but should there be the slightest sign of inferiority, then the whole lot is thrown aside. All the plants are supported, and the ground is kept scrupulously clean, so that there shall be no question of the Sweet Peas sharing the food with the weeds.

In the crossing of Sweet Peas the untiring worker at Mark's Tey has been the well-known head of the firm, Mr. William Cuthbertson. For some years he has laboured unceasingly with a view to the production of something of conspicuous excellence, and there are now among his seedlings several which promise to bring him a rich reward. Mr. Cuthbertson's results in the first year are not taken as gold mines; on the contrary, the products are carefully saved and sown in the succeeding season. It is then probable that the colours will break and possibly some will be of promise, while others will be inferior; in the case of the latter there is no hesitation in throwing them away, but the others are saved and the seeds again sown for testing. This may go on year after year until the variety is found to be absolutely reliable, when a stock sufficient to put on the market is grown. Thus it is clear that one cannot raise and distribute a new Sweet Pea in one or two years; as a matter of fact, it may take anything from five to ten years before it can be placed in commerce, and during the whole of that period time and labour are being spent on growing and selecting it, so that it shall eventually be the perfect flower according to its colour.

CHOICE TULIPS WITH A WIND SCREEN OF COIR NETTING.

For the forthcoming season Messrs. Dobbie and Co. have three splendid novelties, and as stocks will certainly be short owing to the wretched weather that prevailed when the plants ought to have been seeding freely, readers are advised to order early to make sure of enjoying a share of the good things. Masterpiece is a superb waved lavender; Edrom Beauty is a charming orange pink; and Sunproof Crimson is precisely what its name implies. Improved Mrs. Henry Bell will be distributed under the name of Mrs. Hugh Dickson; it is a splendid variety, probably one of the finest in cultivation. Then no one must miss Mrs. Andrew Ireland, the beautiful bicolor that has been so generally admired this season.

THE KITCHEN GARDEN.

A VALUABLE WINTER SALAD.

AT this season, with a wealth of salads, we are apt to overlook the winter supply, and during early September those who require winter salads would do well to sow Sutton's Winter Lettuce-leaved Endive, a long name, but one that describes the plant well, as it closely resembles a good form of Lettuce, of the Batavian type as regards size, and is more hardy than the Lettuce, therefore more valuable. Indeed, for winter salads this is a splendid plant, and sown as advised, very thinly, so that a good sturdy plant is secured, the grower has a most valuable addition to the none too plentiful winter supply of green salads. The plants when grown in good land attain a large size, and I advise planting a fair number on an open border, so that the plants can be lifted with a good ball and given shelter. The remainder planted on a warm border or under a wall would give a supply from November to January, after which the protected plants would come in for very large heads. An earlier sowing than advised would do well, but I always found the later-sown or medium-sized plants more valuable, as they wintered well and kept up a supply till the early frame Lettuces were available, and when the plants are full grown they remain sound for a considerable time.

A NEW HARDY KALE.

THE Kales are so useful in the early part of the year that any variety which winters well and gives a good return is very valuable. The new variety named Sutton's Hybrid is most distinct and a true hybrid; doubtless one of its parents is Couve Tronchuda, a vegetable much overlooked in this country and valuable for its hardiness. In any case it is an excellent midwinter and spring vegetable, and Messrs. Sutton class it with the Borecoles. It is very hardy, very prolific and of good quality, and when grown specially for use from December to March is a most valuable hardy vegetable. The plants if allowed room give a large return in the way of sprouts, these being produced in abundance from the base of the plant to the top, and when cooked are delicious; indeed, I can confidently recommend this plant to all lovers of vegetables who require something different from the ordinary green Borecole.

G. WYTHES.

TREES AND SHRUBS

FRENCH GORSE, HEATHER AND LING.

THROUGHOUT August and September commons and hillsides in many of the southern and western counties are ablaze with the gold, purple and red flowers of these common plants, and the combination is one that might well be copied in gardens in those parts of the country where the plants are not met with in a natural state. Moreover, they are well adapted for planting in poor ground on hillsides or on the level where little else but poor grass grows, and look infinitely better in such a position than when planted in a trim or highly kept part of the garden. Very little in the way of cultivation is necessary, providing the ground in well dug over to bury grass or weeds and a little care is taken for a year or two to prevent coarse weeds from smothering the young plants. Of course, it is not advisable to plant the Heather and Ling in places where lime is very prevalent and such plants do not thrive, but there are many districts where the idea could be successfully carried out.

Care must be taken to obtain the right kinds of Gorse and Heather, so that they will blossom at the same time. With the Ling (Calluna vulgaris) a mistake cannot be made, as it is the only species in the genus. There are, however, many varieties, any of which may be used; in fact, in some places where it abounds it is no uncommon thing to find several different forms all blossoming within a very limited area. On one occasion the writer, in company with a friend, gathered seven varieties on a single hill, Carn Brea, in Cornwall, and the same thing has been noted on the Derbyshire hills. There are, however, several autumn-flowering forms of Heather and two of Gorse. The Heather to select is that known as Erica cinerea. This has rich reddish purple flowers, but there are forms with red, purple, white and scarlet blossoms. The planter can, of course, consult his own taste as to whether he will be content to plant the type only, or will go to the greater expense of obtaining the varieties.

The two species of autumn-flowering Gorse are Ulex Gallii (the French Gorse) and U. nanus (the dwarf Gorse). Although when seen side by side they are as different as they can possibly be, the latter is frequently mistaken for the former. U. Gallii is distinguished by its compact habit, strong, ferocious spines and large flowers; and U. nanus by its looser growth, soft shoots, comparatively soft spines and small flowers. Clumps of U. Gallii look as if they were kept cropped over, and when in blossom present dense, cushion-like masses of rich gold 9 inches or 1 foot high. The rich gold of these flowers intermingled with the red and purple of the other plants, spreading over an area many acres in extent, is a sight not easily forgotten, and even when practised on a small scale in gardens few things better repay the trouble.

When planting it must, however, be borne in mind that formality must be avoided, and the more natural-looking the masses are made the better the result will be. A large breadth of Heather of irregular outline may have the margin broken with a patch of Gorse, or a mass of Gorse may be allowed to join with a patch of Ling by means of a deeply broken margin; in a large mass of one thing two or three plants of another may be introduced, as if they had sprung from naturally sown seeds, and so on. The best way to deal with the Gorse is to obtain seeds and sow two or three in a 3-inch pot. The young plants should not be disturbed until they can be planted in permanent quarters, for they are very impatient of root disturbance. Several thousands of pots occupy but a small area, and they can be plunged out of doors. It is impossible to obtain large stocks of plants of this species from nurserymen.

D.

THE FRUIT GARDEN.

FRUIT NOTES.

THE FRUIT-ROOM.—This is indisputably one of the most important adjuncts of the garden in which fruit is grown in any appreciable quantity. It must not be inferred that it is absolutely indispensable, for such is no means the case; but where there is a bulk fruit demanding storage, practically every ason it becomes necessary, since it is only by its l that we can provide adequate accommodation. or those who have small amounts to handle a om in a dwelling-house which can be kept dark, ost-proof, at an equable temperature and is adily ventilated, will answer the purpose mirably; but I have no sympathy with that rm of storage which consigns the Apples to a ore or less happy resting-place underneath the d. There will shortly be a great ingathering fruit that will keep for many weeks, or even nths, and it is necessary that the fruit-room all be prepared for its reception. Its atmohere must be perfectly sweet, since if it is pure it will quickly taint ripening fruit, and shelves and walls must be scrupulously clean. such preparatory operations as this have not en commenced, let them be attended to at once, it is most unwise to leave them until the fruit waiting at the door and cannot be brought in nply because the place is dirty. Take advantage the first day when the weather is unfavourable outdoor work and put the fruit-room into at condition of cleanliness which will make it leasure to enter and suitable for the reception the valuable fruit that will have to go in it.

GATHERING FRUIT.—The harvesting of the rlier Apples and Pears should proceed apace the fruit becomes ready for removal from the e. There is not the slightest need to rush tters of this sort, for these varieties keep ter on the trees than they do off them, and as g, therefore, as they will hang on the spurs ve them there, except for such as are needed immediate use. Directly they are gathered them be used, for the Apples lose their flavour l the Pears soon go rotten when once they are ked. It is imperative, although it is not purred to attempt to keep them for any length of e, that each fruit shall be handled with proper e, and as though it were really a thing of ue, and not as if it were a stone, as one commonly sees. Place the fruits separately the basket, and when the time comes for ing them out again deal with them as indiuals. All this may mean that a little longer e will be necessary in the task, but it will ll the full value of the fruit to the careful wer.

ROOT-PRUNING.—To induce trees which make much wood at the expense of flowers and it to assume or return to a bearing condition by t-pruning is not always as easy as it sounds at t. Many things have to be taken into coneration before the operation is put in hand, when it is in process the utmost care and gment are imperative in order to ensure cess. Those who are quite inexperienced uld be well advised in seeking the advice of a fessional gardener, who would say exactly what ght or ought not to be done; but if that is ossible, the amateur must necessarily rely n himself. If the tree were planted last autumn has grown too rankly it almost invariably ices to lift it and at once replant, since this ple action usually serves to check the roots, older trees must have a trench formed 3 feet hereabouts from the bole and all strong roots t are seen when cutting down should be cut smoothly with a sharp knife. With old trees t have become established it will be advisable lo this work in two seasons, taking one side he tree in the first year and the other side y in the following autumn; but with younger specimens it is an excellent practice to cut all round in one operation.

CORDON TREES.—In response to the expressed wishes of several correspondents, the "Fruit Notes" in the succeeding two or three issues will be exclusively devoted to the formation and maintenance of the different forms of cordons. FRUIT-GROWER.

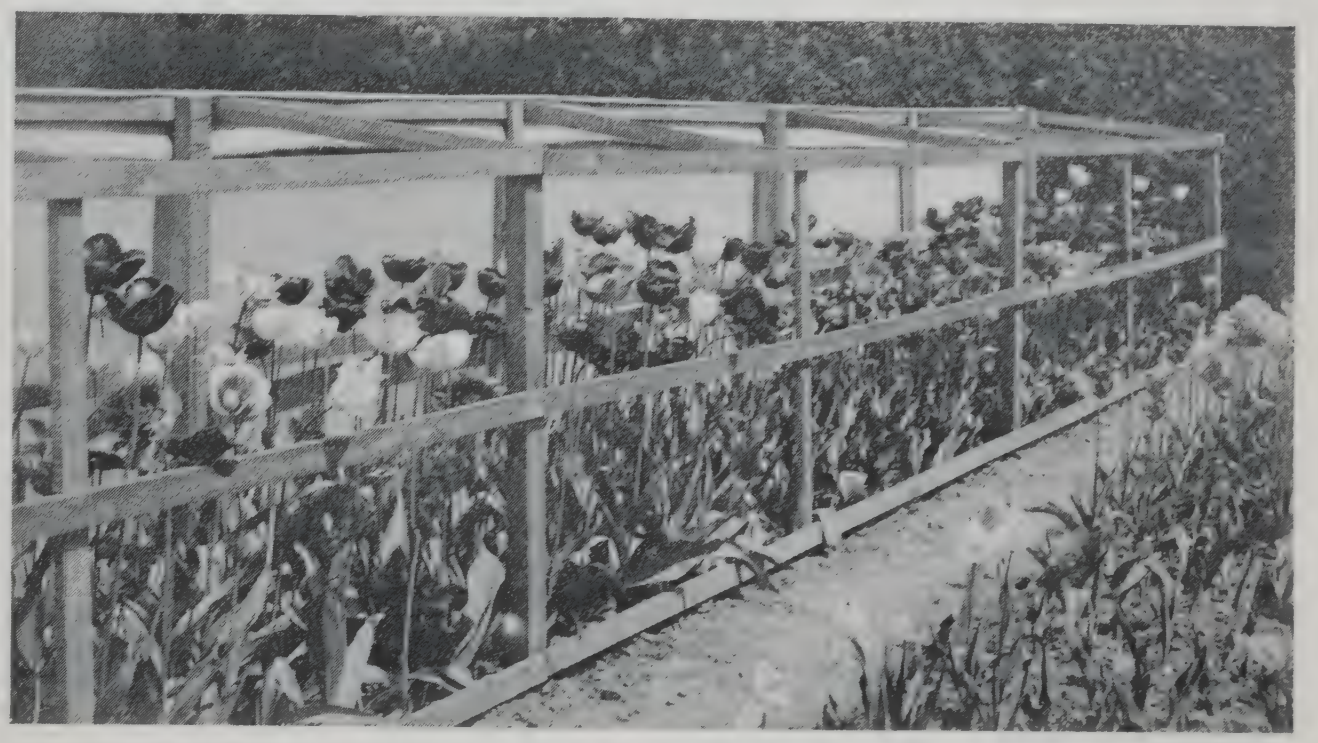
THE FLOWER GARDEN.

THE GLAMOUR OF THE TULIP.

I THINK I have hit upon the right word in which to sum up the peculiar fascination of the Tulip. Had I been writing of the Rose, the Carnation or the Daffodil I would never have written glamour. It would have been as inappropriate in their case as it is appropriate in the case of the brilliant Tulip. This very Eastern flower has so much of the spirit of the East in its composition that the same word which current phraseology uses to describe the strange power of Asiatic lands to attract and entrance seems quite natural to use in its case too. Mystery and gorgeousness are united in this flower. They stand out as its prominent characteristics. The un-get-at-ableness of an Indian mind has its counterpart in the seemingly insoluble problems which confront the enquirer as he begins to cast about for a solution. The brilliance and magnificence of Oriental state are paralleled in the simple barbaric splendour of a great bed of Vermilion Brilliant or Mr. Farncombe Sanders. It needs the very brightest of Western suns to bring out their full glory, and a spectator with something of the "Glamour of the East" about him to appreciate it.

I have been in Holland with a friend who would hardly look at the masses of brilliance which the fields of Haarlem and Hillegom display when the unnumberless numbers of their early Tulips are in the zenith of their bloom. He could not understand the exclamations of surprise and delight that the solid masses of vivid colour drew from me as we passed from one large flat to another. Some day the glamour of the Tulip may conquer him, and he will go to Holland and see the great sight with new eyes.

It is very wonderful, when we think of it, how the same spirit can show itself in so many different and unexpected ways. In going over my Tulip life and trying to find a reason for my original purchase of a small collection of Cottage Tulips, I can only think it was the same something that made me as a child take a delight in dressing up in bright clothes and attending daily, at a certain Devonshire watering-place where I was passing the winter with my invalid mother, a High Church service—the same something that to-day makes me give Burma, that land of living Tulips, a peculiar warm corner in my heart. It is a long time since the first Fairy Queen bloomed in my garden. I am now on far more intimate terms with this ancient family, and I know very many more of its members, and so far from distance lending enchantment the reverse is the case. A closer acquaintance is all the time revealing subtle and unexpected attributes; the unceasing change of colour as sunshine and cloud alternate on an April or May morning; the beautiful hazes as one looks down into the individual flowers and sees anything in colour from the almost black peacock green of ixioides to the pure white of Loveliness, and in form almost every conceivable kind of star and cross.

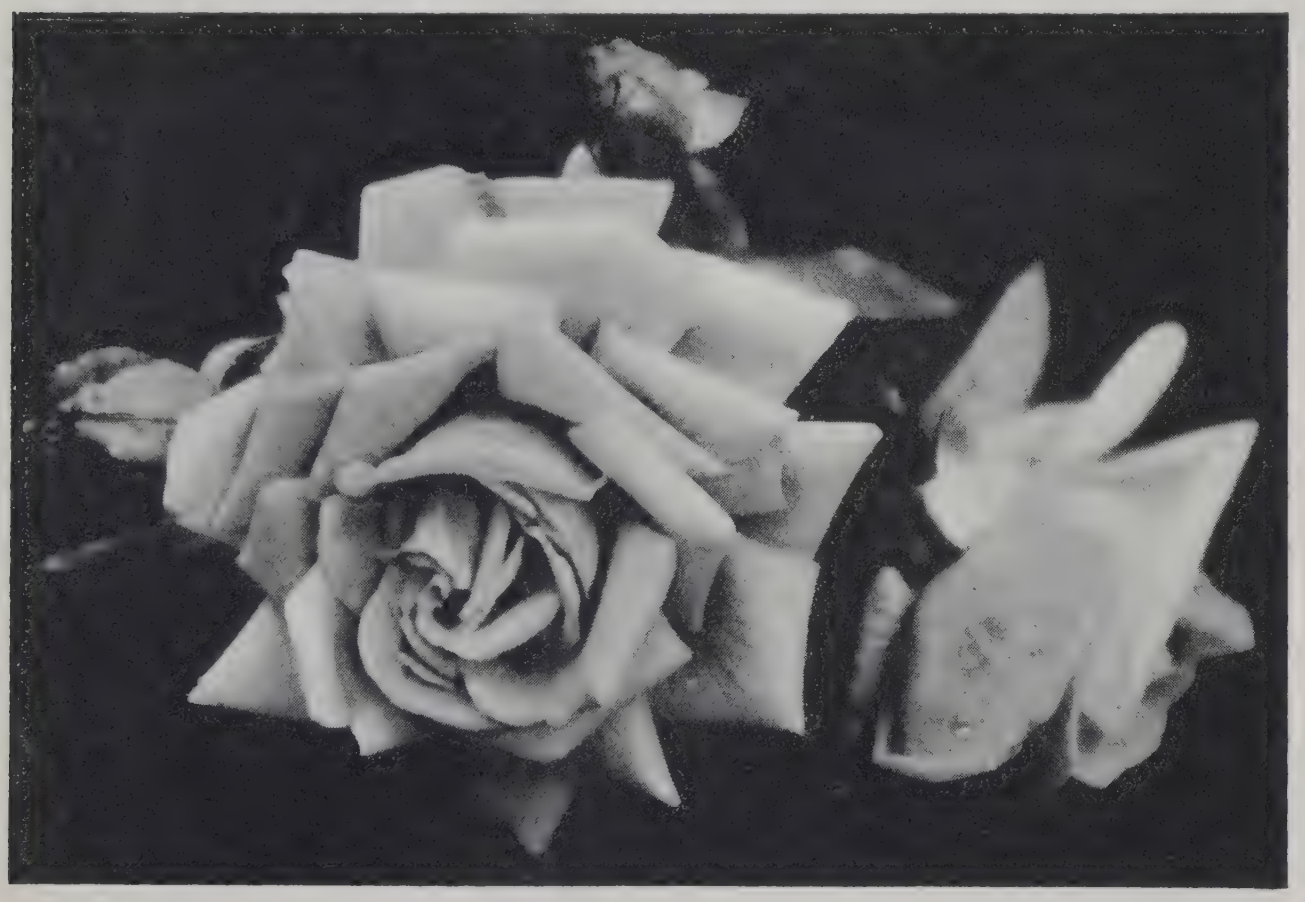


DARWIN TULIPS UNDER PROTECTION. FIFTY CHOICE VARIETIES IN A BED.

I can truly say the rigid florist loses much, even if he gains greater purity of colour in the petal, in limiting his ideals to perfectly flawless white or yellow centres. Again, as we pass from the mass and look at the individual flower "the fine vase-like curvatures" of alba elegans or La Merveille appeal to our sense of form by their severe but simple beauty. Then there is the glorious uncertainty of novelty. All at once we may find a Village Boy in a mass of Cottage Maid, or a bright little Scotia in a bed of Caledonia.

I have to confess that so far I have never had anything but failures when I have tried to raise new varieties from seed; either it has not germinated, or long before they could fight for themselves the little mites have fallen a prey to slugs or disease. And yet I had an old gardener neighbour who used to sow the seed and rear its progeny quite easily. All he seemed to do was first to open the pod and put it a few inches below the surface in the shaded corner of his trimly kept garden, where was the burying-place of his favourite pets. I got the fine deep yellow Annie from him, and it always rather rankles in my mind that catalogue-makers will put it down as a synonym for Parisian Yellow. Why? The two are as different as possible, not only in the shade of their yellow, but in the style of their foliage and in their vigour of growth. At the present time I grow a large collection, including species, Darwins, Rembrandts, Parrots, early-flowering double and single, Cottage and a few Old English or florists. It occupies about half an acre, and is especially rich in Cottagers and Darwins.

Last spring was one of the very best that I can remember. Hardly a bloom was spotted or a leaf disfigured with "fire." The screens (one of which can be seen in the illustration on page 456), no doubt, helped to bring about this happy state of affairs; but without them the weather was so favourable that I think I would have had a grand show. My worst enemies are slugs, cold winds and hail. To checkmate the former I give all the beds a heavy dusting of soot in late autumn just before I make them snug for the winter with a thin covering of "grigg." To be prepared for the latter I have slightly wider alleys left, so that I can put up the curtains or wind screens of coir netting. This is made in Maidstone, and is what is used for protecting the Hops in Kent. I could say a good deal about its utility for many garden purposes, but I must not digress any more. My allotted space is almost all taken up, and I have just to allude to my rather rough, but all the same effective, shelter which is illustrated on page 457. Tulips remain in perfection very much longer with some covering, and I always arrange for from two to four long beds to have it every year. Then, if the worst comes, there will be a few flowers which will assuage, if they do not entirely satisfy, my yearly hunger. The wooden part of the erection is made in the autumn, and the covering is a large loose sheet of wrapping made to put on and take off with tapes—primitive indeed when compared to the splendid shelter that I saw in Mr. Needham's garden this spring, but very serviceable. Joseph Jacob.



A GOOD FLOWER AND BUDS OF THE LYON ROSE.

THE CLINTONIAS AND THEIR CULTURE.

The name Clintonia has been applied to members of two widely different families of plants. The one to which the name rightly belongs is a genus of the Natural Order Liliaceæ, and consists of about half-a-dozen species, of which four are North American, while two come from Eastern Asia. The other genus to which the name Clintonia has been commonly applied is a member of the Campanula order, namely, Downingia, a family of small-growing, elegant annuals closely resembling Lobelia. The Clintonias are low-growing perennials closely allied to the Trilliums and Paris quadrifolia, and, like those plants, are generally found growing in damp, shady woods. Under cultivation they will thrive in shady portions of the rock garden planted in a mixture of peat, loam and leaf-soil, with enough sharp sand to keep it open. While they cannot be classed among the most showy plants, there is a certain charm which makes them very interesting and attractive. The one illustrated on page 459, C. umbellata, is most frequently met with, and it increases freely when planted in suitable positions, but the others are somewhat more rare in gardens. The most attractive in flower is

C. andrewsiana, a plant that is found on the coast range of California. It was introduced into cultivation about ten years ago, and has two or three basal leaves 6 inches to 12 inches long and from 2 inches to 4 inches broad. From these rise the stem 18 inches high, bearing at the top a dense umbel of deep rose-coloured flowers.

C. borealis comes from the Northern United States and Canada, and is always found in deep, cold woods. The leaves are large, while the greenish white flowers are borne in loose umbels on stems about a foot high.

C. umbellata.—The illustration is of a plant that has been grown in a pan in a cold frame. This plant is well adapted for such treatment, and is a useful and pretty subject for the alpine house. In the rock garden this species spreads by means of its underground stems, and the blue berries which follow the flowers are very decorative. C. umbellata has smaller pure white flowers in a denser umbel than C. borealis, but is similar in other respects. It comes from the woody mountains of Virginia and Kentucky.

C. uniflora is a native of North-western America, and has similar leaves to the above, but they are more pubescent. The flowers are borne singly, or rarely two, on a short peduncle, and are white in colour, followed by a blue berry.

C. alpina is found in forests on the Eastern Himalayas at an elevation of from 8,000 feet to 12,000 feet. It grows about a foot high, with broad leaves and umbels of white flowers. Closely allied to this, and considered by some to be identical, is

C. udensis, which is found both in China and Japan. It has somewhat larger flowers of the same colour, which are also followed by black berries. W. I.

THE ROSE GARDEN.

NOTES ON NEWER ROSES.—II.

(Continued from page 444.)

Hybrid Perpetuals.

THE Hybrid Perpetuals among newer Roses are few and far between; in a list of the newer Roses published in the National Rose Society's Annual for 1909, compiled by the publications committee and numbering nearly ninety distinct varieties, there is only one Hybrid Perpetual—Dr. William Gordon, a 1905 variety—and going through my notes to look for the Hybrid Perpetuals is almost like searching for a needle in the proverbial bundle of hay. Surely the possibilities among the Hybrid Perpetuals have not been exhausted. No doubt the tendency to run down the Hybrid Perpetuals as a class has something to answer for in this connexion, and so some raisers with the slightest excuse label their new productions Hybrid Teas rather than Hybrid Perpetuals, which I think is a great pity, for more reasons than one; but we must take things as we find them, and the new Rose suffers for the sins of its class. Undoubtedly "Hybrid Perpetual," by a curious paradox, has in the eyes of not a few rosarians come to mean once, or temporary flowering only, and not perpetual in the ordinary acceptation of the term at all. We have heard no more of Mr. Pemberton's suggestions that the time had come for doing away with the terms now in use, nor perhaps are we likely to, unless the proposal to destroy is accompanied by an easily workable and intelligent scheme of reconstruction. I have no doubt when they arrive together the thing will be done; in the meantime we must put up with the inconsistencies and paradoxes of the present arrangement which are manifest. The first Hybrid Perpetual that I have any note about is

Barbarossa, sent out by Welter in 1907 and generally described in catalogues as a red Frau Karl Druschki, which is a pity, as it has no resemblance to Frau Karl Druschki as we know it. The colour is not bad, but there is a good deal of carmine in it, and I have yet to see a good flower of it. I am afraid it must join that increasing army labelled "not wanted." In other words, it ought not to have been sent out. That is my own opinion, and I have had it confirmed in more than one quarter. No, the red Frau Karl Druschki is yet to seek.

Dr. William Gordon.—Sent out in 1905 by Messrs. William Paul and Son, Waltham Cross. This is a big flower of the old-fashioned type, colour satin pink, that comes rather flat, although I have seen a high-centred flower. Useful for pot culture, as it seems free enough.

M. H. Walsh.—Another 1905 introduction raised by Messrs. Alexander Dickson and Sons, Newtownards. This is a good Rose, fine crimson colour with a suggestion of scarlet in the younger flowers; it comes good enough for exhibition when at its best; good habit of growth, which is of the kind usually termed "erect." Has been well exhibited by the raisers this year at more than one show. I noticed a particularly fine flower at Luton. It is good in the autumn, which is another advantage, as reds are then scarce. Its price has reached the normal, so it is worth trying.

Mrs. A. M. Kirker (1906, sent out by Hugh Dickson of Belfast).—A sweet-scented, good-sized flower, clear, bright cerise colour, that has opened well with me, notwithstanding the wet; rather a tall grower. It has found its way into the exhibition boxes, and I think has come to stay.

Oberhofgartner A. Singer (1905, P. Lambert) is another Rose that I think we can do without, it having nothing especially to recommend it.

Urania (1906, Walsh).—This is a giant; my solitary plant has had some tremendous flowers that would make even the old Paul Neyron look small. It is a similar shade of colour to Ulrich Brunner,

ightly deeper perhaps, so might be called cherry imson; a good grower apparently. I have not en it exhibited, but have little doubt when better nown, as it deserves to be, it will be found among e back-row flowers in the exhibition boxes.

This completes the newer Hybrid Perpetuals far as my notes are concerned. A Continental rrespondent tells me I should try Gloire de hedane Guinoisseau, and describes it as true rmilion in colour, of good shape that should o well in England, but I can get no confirmation his report among the trade growers. I also eard there was another Jules Gravereaux that as likely to be useful—a Monsieur this time, presume—but I almost hope it is not so; vo names only distinguished by a prefix that often left out will only lead to confusion.

Of the Hybrid Perpetuals, then, I can only ecommend two as worthy of a rial, or, at the most, three—I. H. Walsh, Mrs. A. M. Kirker nd Urania—the product of the orld's raisers during the last our years, not an overproduction, t any rate. There will be a ifferent tale to tell with the Iybrid Teas, which I will deal ith in my next article.

Purley. H. E. MOLYNEUX.

THE LYON ROSE.

THIS remarkable Rose continues o create a great deal of interest, nd rightly so, as it is one of the ost lovely and distinct varieties at have ever been introduced. s a pillar Rose it will doubtless rove very valuable indeed, as it of a vigorous, free-growing haracter, and its handsome, inkish yellow flowers are produced in abundance. In addition o their unique colour combination the blossoms are large, very ragrant and of exquisite shape, s the illustration on page 458 ill show. The photograph was aken in Messrs. Stuart Low and o.'s nursery early in August, nd at the time of gathering he large bloom was a perfect pecimen. H.

SOME NEW AND OLD ROSES SUITABLE FOR WINDY GARDENS.

[*In Reply to "K. E. J."*]

QUITE understand your difficulty, or it is very distressing to see ne's Roses bruised and spoilt by trong gales. In such a garden I dvise several rows of shelter urdles, placed at intervals of bout 20 feet. What are known s wattled hurdles are best. They re splendid and may be quickly overed with the charming ichuraiana Roses, which, planted at intervals of feet or 8 feet, would cover them with foliage in ne season. I naturally advise bush Roses for uch a windy garden as yours. If planted about feet apart, you could partly peg down some of he growths, which would tend to keep the plants dwarf and thus benefit by the screens. On the creens some of the lovely perpetual-flowering Roses could be planted, especially those from the China and Tea-scented sections.

Among the comparatively new Roses for your garden, which is situated in the vicinity of the Bristol Channel, I can recommend the following or their freedom of growth and good flowering qualities. They are not grouped in any order of merit, but you can rely upon all being good. Château à Clos Vougeot, Harry Kirk, Elizabeth Barnes, Laurent Carle, Mme. Maurice de Luze, Lyon Rose, Mme. Segond Weber, Dorothy Page-Roberts, Earl of Warwick, Mrs. Isabelle Milner, Dora, Hugh Dickson, Ecarlate, Gustave Grunerwald, Gloire de Chedane Guinoisseau, Grace Molyneux, Hector Mackenzie, Betty, Kronprinzessin Cecilie, Lady Ashtown, Mme. P. Euler, Mrs. Aaron Ward, Mrs. E. G. Hill, Mrs. A. R. Waddell, Rene Wilmart Urban, Mme. Melanie Soupert, Lady Ursula, Andre Gamon, Joseph Hill, John Cuff, Dr. O'Donel Browne, Friedrichsruh, Mrs. A. Westmacott, General Macarthur, W. R. Smith, Walter Speed, Charlotte Klemm, Aennchen Muller and Mrs. W. H. Cutbush. Among ramblers you will find Goldfinch, Tausendschön, Coquina, White Dorothy and American Pillar distinct and beautiful.

Coming to the old Roses, there are so many that it is difficult to advise, and I do not know what you already possess, but here are a few that should grow well in your windswept garden: Antoine Rivoire, Augustine Guinoisseau, Caroline Testout, Frau Karl Druschki, General Jacqueminot, G. Nabonnand, Mme. Jules Grolez, Mme. Ravary, La Tosca, Mme. Abel Chatenay, Ulrich Brunner, Mme. Jean Dupuy, Mrs. John Laing, Prince de Bulgarie, Viscountess Folkestone, Admiral Dewey, Charles Lefebvre, Amateur Teyssier, Anna Olivier, Marie van Houtte, Captain Hayward, Boule de Neige, Elise Boelle, Clio, Commandant Felix Faure, Dr. Andry, Dr. Grill, Dupuy Jamain, Florence Pemberton, Grace Darling, H. Schultheis, Lady Roberts, Mme. A. Mari, Mme. Edmee Metz, Mme. Hoste, Mme. Isaac Pereire, La France, La France de '89, Mme. Lambard, Mme. Pernet-Ducher, Mme. Wagram and Peace. P.

A PLANT FOR THE SHADED ROCK GARDEN (CLINTONIA UMBELLATA).

THE GREENHOUSE.

NOTES ON ORCHIDS.

CŒLOGYNES.

AMONG the six most popular Orchids given recently in THE GARDEN was Cœlogyne cristata, a well-known and deservedly popular subject, as it furnishes a supply of beautiful arching sprays in the early spring when white-flowered Orchids are none too plentiful; but this species by no means exhausts the good things contained in the genus quoted above. C. pandurata always attracts attention; its large, pale green flowers, with the lips blotched and marked with black, produce a most striking contrast.

Other showy plants are C. graminifolia, C. ocellata, C. asperata (Lowii), C. barbata, C. rossiana and C. speciosa. From the union of the last-named and C. cristata a hybrid has been raised in the establishment of Sir J. Colman, which is interesting, owing to the fact that it is the only hybrid Cœlogyne known. As a general rule the spikes are erect, but with C. dayana, C. tomentosa and C. massangeana they are pendulous, and for this reason they should be suspended from the roof, where the long chains of ochre yellow blossoms present a pretty sight.

Cultural Details. — With few exceptions all may be grown in the intermediate house, where the temperature fluctuates between 55° and 65° Fahr., the former being registered at night and the latter about midday; but if at any time we get a spell of frosty weather, it will be advisable to permit the temperature to fall a few degrees rather than employ excessive fire-heat. A moist, buoyant atmosphere is required during the summer months while the plants are in active condition, and a little ventilation, either from the top or bottom ventilators, is also beneficial to clean and healthy growth. The repotting takes place directly roots are seen at the base of the partly developed new shoot, but this operation will only be necessary about every third year, an annual top-dressing, such as pricking in a portion of fresh material where it has decayed or become sour, and not conducive to root-action, usually sufficing. If a collection of Cœlogynes is cultivated, a few will require attention at different periods of the year; but they must be repotted when ready, irrespective of season or orthodox methods.

The potting compost consists of Osmunda fibre, peat and chopped sphagnum moss in equal parts, and it ought to be pressed moderately firm among the roots, while on no account must the soil be elevated above the rim of the receptacle. Ordinary flower-pots are usually selected, but for the smaller-growing species pans without side holes are preferable, and the pendulous varieties are better adapted for basket culture, which should have wire handles attached for suspending them 3 feet or 4 feet from the roof glass.

After repotting, the watering must be carried out in an observant manner, just keeping the surface moist with a fine-rosed watering-pot till the roots are well into the soil, when it can be increased with advantage. SENTINEL.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—The recent spell of cold weather and rain has had a bad effect upon many kinds of bedding-out plants, more especially Zonal Pelargoniums. During the past few years many plants of the semi-double flowering varieties have been used in the beds in the flower garden; but they have not been a success this season, owing to the cold weather and the frequent rains, as the blossoms have damped off badly. However, on this account it is not wise to cease planting them in the beds, as other seasons may be more favourable and the massive trusses certainly look very well. The clearing away of all fading flowers and leaves must be regularly attended to, as cleanliness at this season of the year is needed more than at any other, because of the quick fading of the flowers and foliage. The present is a good time to put in cuttings of Calceolarias. These plants brighten up a flower garden wonderfully well, and as the rooted cuttings are comparatively easy to keep through the winter, a good stock of cuttings should be inserted now. Those shoots growing near the base of the parent plants are the ones to select; they must not contain flower-buds and should be about 3 inches or 4 inches long. Strip off the lower leaves and sever the stem with a sharp knife, then insert the cuttings 4 inches apart each way in a firm, sandy compost in a low, cool frame. Give one thorough watering, then keep the frame closed and shaded for a few days afterwards.

1.—STICK SUITABLE FOR TYING ONIONS TO FOR THE PURPOSE OF STORING THEM.

Vegetable Garden.—If the weather comes very cold and is dull, all Tomatoes that are approaching ripeness must be carefully gathered and laid out thinly on paper in a cool greenhouse or frame to properly mature. If left on the plants in such circumstances they would probably split badly and then commence to decay. All ripening Asparagus must be cut forthwith, and the tops, as well as any weeds that may be found among them, taken away and burned. After this work has been done, no attempt should be made to trim the edges of the beds very soon, as seeds of weeds would be buried and give trouble next spring. Wait awhile, then the seeds will germinate on the surface and the seedlings may be destroyed wholesale with the Dutch hoe. The first trenching of vacant ground may now be commenced, and, in the case of heavy soils, well-rotted manure may be put in, but not in light soils. Now, the inexperienced person must remember that, in order to do the trenching in a proper way, the soil must be turned over to a depth of about 30 inches or 36 inches, that the subsoil must be well broken up but left below, and that the top soil must be left in a rough, lumpy state.

Fruit Garden. — The sunshine during the early autumn must have free access to the branches and buds of all kinds of fruit trees, so that they may be thoroughly ripened. The summer pruning of fruit trees is now carried out more generally than it used to be, even within the last generation; and as many shoots grow afterwards which tend to cause overcrowding if not pinched off, the first opportunity should be taken to remove these lateral growths. Leaves falling from fruit trees, and especially those from bush fruits, must be raked up and burned every week, as there are, generally, so many injurious insects in them.

Greenhouse and Frames.—Pot Amaryllis now in fibrous loam and leaf-soil in equal proportions, and add a 7-inch potful of sand to a bushel of the compost. If there is a propagating-frame in the house, remove the glass light or, if fixed, prop it up and plunge the newly potted plants in a gentle bottom-heat; new roots will quickly enter the fresh soil. Batches of Primulas in warm frames may now be put into their flowering pots for earliest use, and those for succession must also be given larger pots. Friable loam, leaf-soil and sand, with some dried, sifted cow-manure and a small quantity of old mortar rubble form a good compost. All frame-lights and front ventilators of greenhouses must be closed at night for the future season. B.

HOW TO ROPE ONIONS.

THE Onion crop is usually regarded as one of the most important in the majority of gardens, and rightly so, as the uses to which this pungent bulb can be put are very numerous indeed. Even when a good crop is secured it frequently happens that there is a shortage during the late winter and spring months, many bulbs decaying during the dull days of November and December. Generally speaking, the cause of Onions decaying is due to one of two things, or both may be

2.—PART OF A ROPE OF ONIONS SHOWING HOW THE BULBS ARE BOUND TO THE STICK.

contributory causes. These are overfeeding and improper harvesting and storing. As it is now too late to avoid the former evil, it is not of much use to go into any detail respecting it except to say that overfeeding with nitrogenous manures causes the bulbs to grow quickly but flabby. Harvesting is now in full swing in most localities, and many beginners in gardening may probably be puzzled over what is known as "roping."

When Onions are ready for pulling, their tops will be bent over at the neck or just above the top of the bulb, and when the latter is given a light pull, sideways, it should come away moderately easy from the soil. After being pulled the Onions are either laid out to dry and the dead tops eventually removed previous to storing the bulbs thinly in some cool outhouse or shed, or else tied up in bunches or roped. Undoubtedly, where a lot of space is not available, the two latter are the best methods to adopt and the last-named the best of these two.

A simple style of roping consists of tying the Onions tightly to a stout stick so that air can reach practically every bulb, and a stick 2 feet or rather more in length will take nearly half a bushel

Onions; hence it will be seen that a large quantity n be successfully stored in a small space. To ake the subject quite clear, two sticks suitable r the purpose are shown in Fig. 1; that on the ght is a natural piece of wood obtained from a rong Pea-stick, and that on the left is an rdinary length of deal somewhat sparsely udded with projecting nails. It will be noticed hat the one on the right has short spurs pro- ecting from it. These, or in the case of the ther, the nails, are necessary; were smooth icks used the Onions, when the tops become horoughly dry, would become loose and fall out, ut the projections on the sticks shown prevent his. It will be noticed that a stout string is ed near the bottom of the one on the right hich is ready to receive the bulbs.

Before proceeding to rope the Onions, they hould have been pulled two or three days so that he tops have become withered and, to some xtent, tough. These are then taken, a handful t a time, and, starting at the bottom, bound ightly to the stick, repeating the operation ntil the stick is filled and forms a complete rope f Onions. Fig. 2, of a partially filled stick, learly shows the method of doing the work nd needs no further explanation. When com- leted, the ropes may be hung up n the sun for some days and then ransferred to a cool, airy place vhere frost can just be kept out. Treated thus there is little fear f the bulbs decaying prematurely.

A HINT ON PLANTING STRAWBERRIES.

ALTHOUGH many readers will by his time have planted their Strawberries, there will be some vho have yet to carry out the vork. While such good results annot be expected next year rom these late-planted specimens, hey will form grand fruiting lants by the following year and ive some fruits next summer. t is doubtful whether there are ny plants with which it is easier or the beginner to make fatal nistakes in the planting than the Strawberry. The preparation of he beds, distance apart to plant nd various other details have fre- uently been given in THE GARDEN, so that it is not necessary o refer to them here.

Most beginners have to pur- hase their first plants, and as the najority cannot afford those in ots, runners rooted in ordinary oil have to be relied upon. For convenience of acking and to prevent them unduly drying, the oots and soil are generally squeezed together, and he plant reaches the buyer with the roots in a imilar condition to that shown on the left of Fig. 3. To plant a young Strawberry with its oots in this state is the first step towards ailure. They should be gently eased and spread ut the same as those on the right of the illus- ration, and in planting use a trowel and make a ole large enough so that the roots will be in a imilar position after planting has been done.

The other mistake to which I wish to draw ttention is the depth to plant. Many failures ave been caused, and the reason never dis- overed, by too deep or too shallow planting. With many subjects 1 inch or 2 inches too deep or too shallow does not matter much; but with he Strawberry this is most important. The roper depth to plant is so that the junction of he leaves and the mass of roots is just level with the surface, as indicated by the arrow n the right. Attention to the two small but mportant details referred to above will make all he difference in the crop during next and subsequent summers. H.

3.—STRAWBERRY PLANT ON THE LEFT AS UNPACKED. ON THE RIGHT A PLANT IS SHOWN WITH ITS ROOTS SPREAD OUT READY FOR PLANTING, AND THE ARROW INDICATES THE DEPTH TO PLANT.

SAVING SEED POTATOES.

THE beginner must be wise and take good care of his seed tubers when engaged in lifting the crop. So many persons fail in this respect, and then they hastily blame the variety or the soil when the crops turn out badly. For seed purposes I would much prefer a tuber under-ripe than very ripe. It is rare indeed that any well-greened tubers decay during the winter when they are properly housed in cool, airy, light structures. When I was a boy I assisted my father to lift some early Potatoes; the latter skinned badly, and my father decided to leave the crop in the ground a few weeks longer. About a bushel of tubers had already been lifted, and these were spread out thinly on the floor of a loft, where they remained exposed to the light and air also, except in frosty weather. Not a single tuber decayed, but practically every one of the remaining portion of the crop did when lifted later on in a ripe condition. Of course, this is an isolated case; but for thirty years or more since that time I have regularly saved seed from the earliest-lifted crops, left them to turn green on mats in sheds or under glass lights in frames, and then stored them in single layers in light rooms, where they slowly produced one or two strong green and purple sprouts, which eventually grew into fine haulm the following year. B.

THE TOWN GARDEN.

EARLY BULBS.—For a few days the town gardener may leave off working in the flower garden and devote the time to the potting of early flowering bulbs. In a similar way, the person who does not possess a large flower garden may engage in preparing receptacles in which various kinds of bulbs may be planted. There is absolutely no doubt about such an occupation proving satisfactory in every way—of benefit to the general health of the worker and in the great amount of pleasure derived in due course from the fine display of blossom which results, and that at a time when flowers are scarce. A number of pots, boxes and shallow tubs should be procured and made quite clean inside. If there are no holes in the bottom of the boxes and tubs, some must be made. A box 1 foot long and 8 inches wide must have at least five holes, half an inch in diameter, made in it for drainage purposes. In addition to the holes, some broken crocks or cinders should be put in to a depth of 2 inches. On the crocks place a thin layer of freshly fallen but faded tree leaves.

THE COMPOST.—Bulbs may be grown in almost pure leaf-soil with a considerable amount of success. I do not recommend the amateur to rely upon leaf-soil solely, but I do advise its use largely with good loam and coarse sand. The loam and leaf-soil should be used in equal proportions and a peck of sand to three of the compost. Use well-rotted manure, if it is available, in the bottom part of the boxes or pots, but it is not absolutely necessary to put manure in the compost.

THE BULBS.—Of course, all kinds of bulbs generally grown for spring flowering may be planted in pots; but such kinds as Narcissi, Jonquils, Snowdrops, Scilla sibirica and Crocuses should be planted in the boxes and shallow tubs, reserving the pots for the Roman Hyacinths and Tulips. Three bulbs of Roman Hyacinths are sufficient for planting in a 6-inch flower-pot, and five Tulip bulbs may be put in a similar sized pot. Twelve bulbs of Crocuses or Scillas would not be too many. In the boxes the Narcissi bulbs should be placed 2 inches apart, Tulips 1½ inches, Snowdrops and Scillas 1 inch, Jonquils the same distance as the Tulips. To make sure of saving the bulbs from decay, put a small quantity of coarse sand around both the base and top of each. Empty inverted flower-pots must be fixed over the pots of bulbs and empty boxes over those containing bulbs. All must be buried under ashes, sand, or ordinary soil until the new growths are nearly 2 inches long. The inverted pots and boxes will prevent any damage being done to the tender growths by pressure of covering material. The cultivator must gradually expose the growing bulbs to the full light, and this is best done by first removing the covering soil or ashes and then the pots and boxes. Cool frames may be used where they are available, but glass porches, windows, and tables near windows will answer the purpose for the growing on of the bulbs afterwards. Of course, where there are greenhouses or a conservatory, the stages and shelves in these structures are ideal positions for the plants. Very careful watering will be necessary, and no feeding until the roots are very plentiful in the pots. Named bedding Hyacinths are best grown singly in 5-inch pots; then the very best can be obtained from each bulb.

ROSES IN POTS.—A few Roses in pots are delightful in springtime when they can be grown under glass. Rose plants do not require a high temperature nor a close atmosphere to grow in; in fact, such conditions would be prejudicial to the welfare of the plants—they like a cooler temperature and a buoyant atmosphere. Plants now growing in pots should be carefully examined, and if repotting or top-dressing be necessary lose no time in getting the work done, using good loam and some well-rotted cow-manure for the purpose. Even those plants that do not need repotting must be examined and the drainage put right. Pot firmly. Afterwards place the plants on boards in an open position and only protect the pots and the soil with leaves, litter or ashes when frosts come. It will be quite time enough to put the plants in the greenhouse in January, when the necessary pruning may also be done. AVON.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

PROPAGATING.—If more plants are to be propagated to make up deficiencies which may have occurred, lose no time in inserting the cuttings, which after this date should be rooted under glass. To be on the safe side put in a few hundreds more than are likely to be required, and take care of a number of the old plants, potting them up before they are killed by frost. These old plants, if placed in boxes or pots rather thickly (first removing the old leaves and shortening the roots) and then stood in pits and cool vineries, will be very useful to propagate from in the spring. When boxing the plants leave the young growths their full length. Cuttings of Lobelias, Iresines, Ageratums, Verbenas and similar plants will root best in a close, warm temperature, taking care not to oversupply them with moisture.

Herbaceous Borders.—Keep these clear of weeds and remove old flowering stems of any plants which may be of no further use. Clean all the autumn-flowering plants, and should the weather prove dry give water to any that may require it. Pink pipings, if well rooted, may be planted out in the more favourable parts, and large clumps divided and replanted.

HARDY FRUITS.

Pears.—Many of these will be fast approaching ripeness, and to prolong their season a few of the most forward fruits should be gathered at intervals when dry and taken to the fruit-room to finish. Williams' Bon Chrétien is, when gathered at the right time, one of our best; but the fruits, when ripe, do not remain in good condition for long. Marguerite Marillat, Beurré d'Amanlis and Mme. Treyve are all useful early Pears, and to follow these Louise Bonne of Jersey, Pitmaston Duchess, Doyenné du Comice, Durondeau, Beurré Superfin, Conference, Winter Nelis, Beurré Fouqueray, Josephine de Malines, and Nouvelle Fulvie are all good.

Plums.—These are bearing heavy crops with us: Washington, Victoria, Coe's Golden Drop, Monarch, Rivers' Early Prolific and Gisborne. The latter as a standard in most seasons crops heavily. Nets must in many gardens be used to protect the fruit from birds, and mice must be trapped where troublesome, the latter doing much harm in some gardens. Mark useless trees and replace them at the proper time with good varieties, remembering that it takes the same amount of time, trouble and room to grow a worthless variety as it does an excellent sort. If not already done, prick up the surface between the rows of Strawberry plants, and on light land mulch well with good farmyard manure.

VEGETABLE GARDEN.

Tomatoes.—Those growing by the side of fences or walls will need all fresh side growths removed, the points of the leaders stopped, if not already done, and many of the leaves shortened, so as to give the fruits a chance to ripen. Any fruits which are showing scarlet colour should be removed and taken into the vineries to ripen.

Beetroots which are likely to grow too large and coarse may be taken up and laid in trenches; this will check any further growth, and in this way the roots will keep fresh and crisp till very late in spring. Dig out the trench deep enough to bury the roots and about 2 inches of the bases of the leaves beneath the soil. Do not remove any of the leaves and in severe weather scatter a little long litter over them.

H. MARKHAM.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

WINTER FLOWERING PLANTS.

CINERARIAS in small pots should be repotted into larger sizes before they become at all root-bound, or stunted foliage and premature flower-stalks are bound to follow. If in cold frames, and one of the numerous preparations for producing shade has been used, this may now be washed off the glass, that the plants may get full benefit of sunlight. In calm, settled weather the lights may be entirely withdrawn, especially at night, when the dews will prove refreshing.

Primulas of the Chinese and the stellata types may be treated similarly to the foregoing; but as the nights get longer and cooler excess of moisture must be guarded against.

Cyclamen intended for flowering during winter should be encouraged to grow freely, and although plants more than a year old may do well enough under cold frame treatment for some time yet, any raised from seed last autumn and from which large blooms are looked for would be benefited by more generous treatment, by being placed near the glass in a house or pit where slight warmth and moisture prevail.

CHRYSANTHEMUMS.

Large-flowering Varieties.—Secure the buds of Japanese sorts as fast as they appear, and keep the shoots securely tied to the supports. The incurved section is later in bud-production, the middle of September being quite early enough to secure these, *i. e.*, to break off the shoots that surround the buds, as more refined flowers are thus obtained than from earlier buds. Mildew and rust may be kept in check by spraying the foliage with sulphide of potassium, 1oz. to two gallons of water being a safe mixture. Aphides often congregate in the points of the shoots and may be destroyed by dusting tobacco powder freely about them, preferably when the plants are moist with dew. Slight stimulants will now be beneficial to any plants not recently surface-dressed, a bag of soot or sheep-manure immersed in the tank whence the water supply is obtained being efficient and safe.

Specimen Plants and others for supplying decorative flowers repay liberal culture, and it should be borne in mind that the greater amount of foliage upon these renders nutriment more necessary to support this and to avoid the unpleasant spectacle of bare stems.

Early Flowering Sorts in pots intended for conservatory decoration should, during inclement weather at least, be placed under cover as the flowers commence to open, or damaged petals are sure to manifest themselves later on. This also applies to large blooms, though the mischief caused thereby is not apparent at the time.

VIOLETS.

Runners and weakly growths having been regularly picked from the plants in the past, health, vigour and rapid extension of the foliage will now be evident. To encourage this, keep down weeds and stir the surface soil frequently. A dressing of soot about the plants is helpful, as it acts as a stimulant and tends to destroy slugs which otherwise might get carried to the frames with the plants in due course. Advantage should be taken of a fitting opportunity to get together a heap, according to the numbers of plants grown, of soil for using about the plants when transferred to frames, while the various components of this are in good working order. Loam and leaf-mould should form the staple of this; but as the former may not be readily obtainable in sufficient quantity, common garden soil, passed through a riddle to remove the larger stones, makes a good substitute. Nothing is gained by lifting and transferring the plants too soon, the end of this month being early enough.

JAMES DAY.
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BOOKS.

Bulletin de la Societe francaise d'horticulture de Londres.*—This annual publication containing the record of the past year's work accomplished by the society has just reached us. We notice that the continued prosperity of the society shows no sign of slackening, for the list of membership and the financial statement are still on the increase. The usual literary and official matter, such as rules, list of members and reports of monthly meetings form the preliminary part of the volume. Then follows an interesting account of the annual dinner, presided over by Sir Albert Rollit, in January last. The best of the papers read at the monthly meetings is given and embraces a number of interesting subjects more or less closely identified with horticulture. There are fewer illustrations than usual, but the frontispiece is an excellent portrait of Mr. Harry J. Veitch, to which is appended a biographical notice from the pen of the society's president, Mr. George Schneider.

The Flora of Cornwall.†—This is a very comprehensive work on the flora of Cornwall and should prove a valuable *vade mecum* to the student of British plants. It is impossible and unnecessary for us to go into the details of this book here, as it is, after all, a text-book pure and simple, but at the same time an excellent and useful one. A splendid map, in which the county is divided up into botanical divisions, is included, and this should prove of considerable value to the would-be student. The flora of Cornwall is an exceedingly rich and interesting one, and anyone requiring a reliable key to this natural storehouse cannot do better than invest in a copy of this book.

French Gardening.‡—The author is manager of the Mayland Farm in Essex, the property of Mr. Joseph Fels, an American gentleman who, for the past seven years, has been unstinting in his labours and with his money in endeavouring to show in a practical way, by engaging in the work himself on commercial lines, the immense possibilities for good which lie dormant in much of the fertile land of England, only waiting for enterprise, capital and trained labour for its extraction and conversion into food for the people. We are told that when this farm of 600 acres was bought, the only persons employed continuously were three men and two boys. Now the wages bill stands at upwards of £3,000 per year and the land supports 400 persons, including men, women and children. One of the methods of intensive culture which has helped to bring about this change during the last two years is French gardening. The interest in this form of culture has been so great of late that Mr. Smith was inundated with enquiries on the subject, and it was this, he tells us, which impelled him to write this book, and very well he has written it. There has been so much fanciful and irresponsible matter written in the Press on this subject of late that it is a pleasure to see it treated in a matter-of-fact, practical way by a practical man, as it is treated here, and would-be beginners starting in this business without practical knowledge of the work would be well advised in perusing and studying every line of this little book carefully before embarking on what is at least a costly and a hazardous business. The book is well illustrated, well printed, and written in simple and plain language. It includes a model plan of a French garden, and chapters on the following among many others: The site, water, manure, frames, lights and cloches, starting the garden, raising

* "Bulletin de la Société française d'horticulture de Londres." 66, Long Acre, London, W.C.

† "The Flora of Cornwall" (including the Scilly Isles). By F. Hamilton Davey, F.L.S. Price 21s. net. F. Chegwidden, Lower Market Street, Penryn.

‡ "French Gardening." By Thomas Smith. Mr. Joseph Fels, 39, Wilson Street, London, E.C.

lanting plants, estimate of expenditure eturn of a two-acre garden, estimates on tlay and return of a one-acre garden, result the Mayland French garden (first year), lar of reminders of monthly work, and h gardening for allotment garden-holders.

actical School Gardening.*—is the title of a somewhat ambitious book lies before us, and which has for its rs the secretary of the Oxfordshire Edu- Committee and that body's horticultural ctor. It is, therefore, obvious that its nation, whether practical or scientific, l have with it all the force of unquestioned ledge. In terming it an "ambitious" book o so because it seems to include so much s quite outside the range of ordinary school ning as now presented in connexion with ntary education. Still, it is doubtless able such should be the case, because, while gardening must necessarily be yet a cted subject, that of gardening in general wide and a most attractive one. Hence, book proceeds its authors find it easier den its sphere than to limit it. Thus, preface is given a long list of eminent ists or of persons prominent in horti- e, whose help is acknowledged; but of the number scarcely one poses as an authority e special subject of the book. Had such een so, possibly a smaller, cheaper and concise manual would have resulted, and gardening might have gained rather than y such limitation. However, as the price book is now stated to be only 2s. net, it uch more readily be purchased by school ers, in whose special interest it is compiled, vas originally the case. The text deals very with the situation of the school garden, a r which, unfortunately, has generally to be mined by local conditions; laying out the nto numerous small ones usually oblong in and varying from half a rod to a full rod a. Plans showing how this is done are . Drainage, trenching, manuring, making tools and many other things are fully bed and, so far as possible, largely figured. e illustration a boy is shown digging, yet o trench open before his spade. This is ng and shows bad rather than good practice. pictures of the kind are doubtless arranged lly for the camera rather than depicting garden operations. Manures, especially ial, are treated very elaborately and scien- ly. The method of cropping plots is also in two or three plans; but any school er or school garden instructor will do wisely more on his own judgment and local con- s in cropping than on any stereotpyed They are apt both to become too wooden make teachers wooden. When the methods ving and planting of crops are dealt with, ind of vegetable is described under a separate the common and botanical names in each eing given. One reads with astonishment atement that the authors have found very if any, difference in the total yield of r Beans, staked and non-staked, from a area. Surely that is made in error. Our ence is vastly different. Round Peas are d for autumn sowing on a south border. that advice does not apply to school garden- Still further, hardly a gardener now sows n the autumn, and in the early spring rarely than wrinkled Peas. But then so many of descriptive notes on vegetables apply more dening generally than to school gardening. ages devoted to garden pests are very , because these pursue gardening in every and teachers may well instruct their how to deal with such troubles. Fruit e is rather elaborately dealt with; but a e of a long garden wall furnished with n-trained trees hardly applies to school gardens. The cultural detail respecting fruit is excellent, as also is that relating to flowers, although lists of Carnations, Roses, Dahlias and Sweet Peas seem more useful to amateur gardeners than to elementary schools. A singularly useful list is given of British plants, many of them quite beautiful, and which might be made most effective in inducing children to become familiar with their native flora. It is rather unpleasant to find all these described as "weeds." However, space is limited, and we can only advise all interested in school, or even amateur, gardening to get a copy of the book and utilise its information.

*"Practical School Gardening." By Percy Elford, F.C.S., and Samuel Heaton. 2s. net. Clarendon Oxford.

ANSWERS TO CORRESPONDENTS

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Yellow flower for edging (*Quiddley*). You cannot have anything better than a yellow Tufted Pansy, such, for example, as Royal Sovereign or Bullion, either of which quickly forms a carpet-like tuft of 6 inches to 9 inches in width, and flowers for a long time in profusion. To get the earliest flowering the plants of these should be put out in their positions in October. The Calceolaria is best raised from cuttings inserted in October in a cold frame. From these sturdy bushes result that are fit for planting, *i.e.*, bedding out, early in April, or at least during that month. Seed-sowing for these is not recommended in your case, and if you do not possess any plants, cuttings are purchasable at a very cheap rate either rooted or unrooted. We are pleased to know that you find THE GARDEN so interesting.

Narcissi to naturalise (*A. H. Rydon*).—It depends very much on the nature of the soil, and particularly whether it is cool and moist, these being the ideal conditions for naturalising quite a large number. In dry woodland many sorts are very short-lived, while in cool, moist and deep clay soils they go on for years. Indeed, we know of an instance where the bulbs were planted nearly twenty years ago and have never failed each year to give a good account of themselves, though the clumps are now becoming thick and crowded. In the conditions we have in mind, princeps maximus is one of the best, while such things as pallidus præcox, Queen of Spain, ornatus, many varieties of the single incomparabilis, also Emperor, Empress and Sir Watkin do splendidly. The single incomparabilis varieties are of great value by reason of their long stems, and such as Cynosure, Frank Miles, Stella and others are worth noting among them. N. Barri conspicuus is also good, and in wet and quite moist spots the double white Gardenia-scented Narcissus, N. Poeticus fl.-pl., should be made much of.

Asters gone wrong (*Stirling Castle*).—These have been attacked by a species of Fusarium, which gains an entrance into the plants from the soil. It is unwise to plant Asters where previously diseased plants have been growing. The dead plants should be removed as completely as possible and burned.

Sweet Peas and Roses (*R. P., Winchmore Hill*). Roses are not likely to be affected by the same disease. Sweet Peas should not be planted in the soil two years in succession. Superphosphate is said to be a check against the growth of the fungus Thielavia basicola, which seems to be so prevalent on the roots of Sweet Peas.

Four herbaceous borders (*A Subscriber*).—No. 1 Bed could be effectively planted with Iris germanica in blue, white, yellow or bronze shades, or a succession might be obtained by planting the earliest of these Irises, with others of I. Kæmpferi to follow and Lilium speciosum cruentum for early autumn. These are all of dissimilar growth, and would provide flowers in May, July and September. Blue Tufted Pansies or blue Hepaticas would provide a good marginal plant if such be required. No. 2 Bed.—For this bed such Roses as Grace Darling or Mme. Abel Chatenay would associate best with the Delphiniums, planting for preference those of sky blue shade with white eye. The plants should be thinly planted. Ulrich Brunner or Caroline Testout would also prove excellent, those first named flowering in summer and autumn. No. 3 Bed.—With the Pæonies plant Narcissus Emperor for spring effect and scarlet and white Phloxes for autumn. For the outer rows Iris pallida might alternate with Aster Amellus, or the former might give place to single pink Pyrethrums and Anemone sylvestris, arranging a margin of Megasea cordifolia purpurea to the whole bed. If you decide to plant Iris hispanica in this bed, you should plant as though carpeting the surface, and not in formal clumps. Bed No. 4 might well be planted with Delphinium Belladonna, single Pyrethrums or Columbines (Aquilegias), Lychnis chalcedonica and white Campanula Moerheimi. The scarlet Lychnis would make a good centre associated with the pure white Madonna Lily, arranging the single pink Pyrethrums, Aquilegias or possibly Anemone sylvestris or Campanula Moerheimi around. A bed of Azalea mollis in shades of orange and rose, with Lilium speciosum rubrum for autumn and Anemone fulgens or A. robinsoniana or A. blanda for early spring, would be very beautiful.

TREES AND SHRUBS.

Climbers to go with Roses (*Britannia*). — You will find the following climbers suitable to mix with the Roses on your columns and to cover the brickwork above: Clematis montana, C. montana rubens, C. lanuginosa, C. Anderson Henryii, C. Fairy Queen, C. Jackmanii superba, C. Jackmanii alba, C. Mme. Edouard Andre, C. Viticella, Hydrangea altissima, Wistaria sinensis, W. multijuga, W. multijuga alba, Actinidia chinensis, Celastrus articulatus, Vitis Coignetiæ, V. armata, V. Thunbergii and Ceanothus veitchianus. The latter plant is not a climber, but will do very well in the position named. If you wish for more material, the various climbing Honeysuckles such as Lonicera japonica halleana, L. Heckrotti, L. Periclymenum and L. sempervirens may be tried.

Plants for hedges (*Frederick Wookey*). If you do not mind your hedges growing fairly wide you cannot do better than plant Berberis stenophylla. This is a good evergreen and flowers well in May. To be seen at its best, however, it ought to be allowed to grow fairly free. You can by clipping, however, keep it to almost any width and any height up to 8 feet. The correct time to clip it is as soon as the flowers have fallen. Penzance Briars make a good hedge, but not so dense as the Berberis, and they are not, of course, evergreen. If Escallonia macrantha thrives in you neighbourhood, you will find it an excellent subject for a hedge, as it is evergreen, bears red flowers freely, and may be kept nice and neat by clipping. It is, in fact, better than the Berberis for places where it will thrive, but will not succeed in very cold districts. Another good Rose for a hedge is Rosa rugosa, or, better still, the hybrid rugosa Blanc Double de Coubert, which has large, double white flowers. Like the other Rose, however, it is not evergreen. If the Escallonia grows well in your vicinity, we advise that; but either of the four subjects will be found satisfactory. Nurserymen such as Mr. Smith of Newry or Messrs. Dickson of Newtownards would be able to supply the plants.

Beech disease (*Miss M. Carta Sturge*).—We have carefully examined the Beech bark sent for examination and find two or three very small patches of the Beech disease (Cryptococcus fagi). A great deal of the green growth on the bark you send is due to moisture and is not harmful to any serious extent. The Beech disease first appears in cracks and crevices, usually on the sheltered side of the tree, and may be recognised by means of the

white, waxy covering which looks like small patches of wool. There can be no harm in examining the badly diseased tree you speak about. If this is attacked by the Beech disease the trunk and branches will probably be white almost all over. As a preventive against your trees becoming worse, we advise you to spray them in autumn, as the leaves are falling, with the caustic wash recommended in a previous article in THE GARDEN. This wash will remove some of the green from the trunk likewise.

ROSE GARDEN.

Perpetual-flowering Roses for verandah (*Eastwick*).—We prefer Lawn Sand for destroying Daisies, &c., on lawns. For the verandah we advise you to plant two Roses against each pillar, one a summer bloomer and one a perpetual-flowering variety. You could always restrict by pruning the growths so that one did not smother the other. To plant with the Carmine Pillar which you possess we suggest Alister Stella Gray. Three other pairs would be Mme. Alfred Carrière and Ruby Queen, Grüss an Teplitz and Rene Andre, Zepherin Drouhin and Grüss an Zabern. Wakeley's Hop Manure is excellent for Roses, and we have never known it to affect the colours; in fact, if anything, it intensifies them.

Rose plants diseased (*H. L. Norris*).—Your gardener may be right in assuming that the trouble is due to the weather, but we have had some very bad seasons during the last eight years, so that if it were weather and the cold position the Roses would have shown some ill-effect before this, and yet you say until this year the bed had been really good. It seems to us there is some trouble at the roots. Why not send a plant to the scientific committee of the Royal Horticultural Society?

Rose foliage blighted (*P. S.*).—The cause of the curled foliage does not lie in the position of the buds or the soil, but arises from the puncture of the larvæ of a saw-fly, known as the leaf-rolling saw-fly. Some authorities believe the mischief is also caused by the female fly when it deposits its eggs. The saw-fly appears in May and June, which will account for the exemption after the first flowering. Spraying with arsenate of lead is recommended as a remedy, but this should be applied at intervals following the pruning. The best plan is to hand-pick the leaves immediately the pests are seen. It is supposed the fly in the cocoon form is first introduced to the beds on the roots of Briars, and probably it is brought upon plants from an infected district, although the wild Roses in the hedges are often attacked. It might be a good plan to renew the soil in October, and at the same time wash the roots of all plants before replanting.

THE GREENHOUSE.

To produce blue flowers of Hydrangeas (*Hydrangeas*).—The question of Hydrangeas producing blue flowers has been before now freely discussed in THE GARDEN as well as in other horticultural journals. Some soils will quickly cause the flowers to turn blue, and this is generally put down to the presence of iron in the soil, but at the same time the whole matter is still a subject for conjecture. When grown in pots, one of the most successful methods of treatment is to thoroughly mix about a tablespoonful of sulphate of iron with each peck of soil. Then, in addition, as the pots get furnished with roots put a pinch in the water about twice a week. Another way is to mix iron refuse from the blacksmith's shop with the potting soil, but this does not always lead to the desired change of colour. Alum water is highly recommended by some in order to turn the flowers blue. The alum should be given at a strength of 1oz. to each gallon of water. To prepare the alum it should be crushed and dissolved in a little hot water. This mixture must be given just as the flower-trusses show, watering the plants with it at intervals of eight to ten days, and discontinuing it when the flowers begin to open. If the roots are very dry the plants must be at first watered with clear water, as the alum would at that time prove injurious.

Forcing Anemones and Lilies of the Valley (*J. P. Higham*).—Good well-ripened roots of Anemone fulgens can be obtained in September, and for flowering early they should be at once potted in a mixture of two parts loam to one part leaf-mould and about half a part of sand. The size of the pots will depend upon individual fancy, but effective specimens may be made if three or four roots (according to their size) are put in a pot 5 inches in diameter. After potting they may be stood out of doors, keeping them watered. Then as the nights get frosty they should be removed to a frame, taking them therefrom into the greenhouse about Christmas. A good light position in the greenhouse must be assigned them. The best time to lift the Lily of the Valley is as soon as the leaves have died down.

Aspidistra leaves spotted (*Anxious One*).—It is difficult to assign any cause for the injury to the enclosed leaf of Aspidistra, as, except the dead patches, the plant appears to be in good health. The appearance of these patches is very like that caused by the sun shining directly on a leaf while it is wet. Whatever the cause, it is certainly a local one. We would like to ask whether a lighted candle or lamp is ever brought in close proximity to the plant, as a very puzzling case which we once investigated ultimately proved to be caused by a candle stood underneath the leaves of the Aspidistra, which was so far elevated above the table on which the candle was used that the chance of injury was at first not thought of. Aspidistras should never be exposed to direct sunshine.

Treatment of Camellias (*B. B.*).—Camellias being almost hardy would succeed in an unheated structure, and other plants of a light and attractive character likely to give you satisfaction are a selection of the hardy Bamboos; Cordyline australis, known often but erroneously as Dracæna indivisa; Phormium tenax (New Zealand Flax) and its variegated variety; Eulalia japonica variegata, a very handsome variegated Grass that will reach a height of 4 feet to 5 feet; Eurya latifolia variegata, a Camellia-like shrub with beautifully variegated foliage; and the best variegated forms of Euonymus japonicus. The Myrtle, too, should succeed under such conditions, and the Laurustinus will flower well with the protection of a glass structure. Yucca recurvifolia, too, forms a very handsome plant when grown in large pots or tubs.

Propagating the Lemon-scented Verbena (*D. R. Coddington*).—The Lemon-scented Verbena can be readily struck from cuttings if they are taken at the proper time, but, failing this, they strike only with difficulty. The way to proceed is about the end of February or early in March to take a plant that has been wintered in a greenhouse (and is then most probably still in a dormant state) into a somewhat warmer structure, giving it water at the roots and an occasional syringing on bright days. The result will be a crop of young, soft shoots, and when these are from 2 inches to 2½ inches in length they make the best of cuttings. These shoots flag so quickly that the pots for their reception should be prepared beforehand. Pots 4 inches in diameter are a very suitable size, and they must be clean and drained with a few broken crocks in the bottom. Then fill the pots with rather light sandy soil passed through a sieve with a quarter of an inch mesh. The soil must be pressed down moderately firm and made quite level. Into this the cuttings must be dibbled with as little delay as possible, putting from five to seven cuttings in a 4-inch pot. When finished a good watering should be given, sufficient, in fact, to settle the soil in one level unbroken surface. Then place the pots in a close propagating-case, if possible in a structure rather warmer than that in which they have grown, but, failing this, the cuttings may be put in the same temperature. A close propagating-case is very essential, and it is also equally important that the cuttings are shaded from the sun, otherwise they so quickly flag, and if this happens they do not root readily. We have seen large numbers struck in this way with scarcely a single failure, but if the shoots are allowed to become firm and woody they strike only with difficulty.

KITCHEN GARDEN.

Cutting and drying Sage (*Old Subscriber*).—The best time to cut Sage is while the plants are in flower, just before the blossoms commence to fade. If cut at that stage the full strength of the plant is preserved. The drying must be done in an open shed or close to an open window where the sun will not shine directly on the bunches. When thoroughly dried, the latter must be suspended from the roof of a cool, dry room, not in a dusty place.

When to plant Rhubarb (*H. S. T.*). The best time to plant Rhubarb is the first week in March. Some people prefer planting in autumn, but should the winter prove wet and cold there is a danger of the crowns rotting in the ground before they have a chance of rooting in the soil. The ground for the new bed should be trenched 3 feet deep in the autumn, adding a liberal supply of rich, rotten farmyard manure to the soil as the trenching proceeds. The distance between the crowns in the row should be 3 feet, and the distance between the rows, if there are more than one, should be 4 feet. In planting, be careful not to place the crowns too deep. When planted, the top of the crown should be on a level with the surface of the surrounding ground. Tread the soil firmly round the roots when planting and keep the ground clean from weeds during summer. No stems should be pulled the first season, but the second season will give a good return. The best varieties are Hawke's Champagne (early), Midseason Victoria and, exhibition, Hobday's Giant

Paths for kitchen garden (*Amate*). The most inexpensive paths you can make those made of clinkers and ashes. Rem the turf and soil to a depth of 6 inches, wh can easily be spread over and dug into borders; then fill up with rough clinkers cinders, retaining an inch or so of the fi material for the top. Ram the clinkers fi wet them thoroughly and roll well with a hea roller. If you prefer to use gravel for the t dig the paths the same depth and place 5 inches of clinkers or rough material, such coarse gravel or bricks, and top up with grav About 2 inches of gravel will be required, wh will roll down to the necessary level. Gra is usually sold by the cubic yard, so you c estimate the quantity required.

Vegetables for exhibition (*M. C.*).—To hav good representative collection of vegetables for exhibit at the time you name you should include Potato Tomatoes, Onions, Carrots, Cauliflowers, Peas, Runner Dwarf French Beans, Cucumbers, Marrows, Beets, wh Turnips and, if you have them, really good well-blanch Celery or Leeks. Parsnips should come in only if ha pressed to make up twelve dishes; nice small, clean, fre Cabbages would be better than Parsnips. As to pointi all depends on whether the schedule of the show lays do any scale of points, or, if not, whether the vegetables judged by points. Taking the kinds at their level val we should give to really good Potatoes, Tomatoes, Onio Carrots, Cucumbers, Cauliflowers, Beans and Celery Leeks, say, six points each, and to the others five poi each. To write a name on a swelling Melon, scratch it n on the skin with a large pin; but the practice is objecti able and disfigures a fruit rather than improves it.

Onion mildew (*C. B.*) —This disease is of a fung nature, and is allied to the mildew which attacks Pe Roses, Vines and various other plants. It is in so instances a product of too much rain and low tempe ture, in others great heat and drought seem to devel it; but the formation of the foliage of the Onion pla renders it very difficult to deal with. When plants havi broad veined leafage are affected with mildew, spraying them with a copper sulphate and lime soluti or Bordeaux mixture, as it is also called, two or th times the mildew is destroyed; but because the Oni foliage is so very smooth, erect and tubular, it is diffic to induce the solution to coat the plants, as it so speed runs off. To make it adhere at all, a good proportion treacle or soft soap should be added to the solution, nothing can now be done to save your plants. When r gather up all decayed stems or tops and burn them. not sow Onion seed on or near the same ground next spri and where it is purposed to sow give the ground early October a dressing of half a bushel of gas-lime per rod.

FRUIT GARDEN.

Apple and Cherry trees attacke by black fly (*Miss Ford*).—We have doubt that the larvæ of the pest had been lyi dormant for a long time waiting for favourab conditions for them to burst forth into activi again. Your trees will no doubt recover in ti even from this bad attack. The best thing you to do now will be to have your trees i mediately sprayed with the following mixtu repeating the spraying in the course of a week time (a syringe will do if you have not a sprayer Boil 10lb. of quassia chips and 7lb. of soft soa well mixing the two together, then add to t mixture eighty gallons of clean water befo spraying the trees. If a less quantity is requir it is easy to reduce the proportions of bo quassia chips and the soft soap and also t added water; and you will find that the aph will be destroyed. As a further precauti against their appearing again next year, advise you to have your trees sprayed in wint with the caustic alkali wash.

The semi-pruning or summer shorte ing of Vine shoots (*Enquirer*).—This, we think, i sound practice to apply to early Vines after they ha comparatively finished their growth and are approachi maturity. It is fair to assume that the doing so at th time helps to plump up and strengthen the fruit-beari basal buds, and, therefore, benefits the crop the followi season. On the other hand, we consider it contrary good practice to cut back growing Vines in the same wa Doing so would, we believe, lessen the power of the Vi to swell up and properly develop its crop of fruit, and are sure that the ultimate colouring of the Grapes wou be injuriously affected. When the Vines have reach the same condition of ripeness as the early Vines, then think that some pruning would prove of advantage, b this could not be before the end of September beginning of October.

DUBLE MICHAELMAS DAISY
"BEAUTY OF COLWALL."

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EDITORIAL NOTICES.

...very department of horticulture is represented in THE ...DEN, *and the Editor invites readers to send in questions ...ting to matters upon which they wish advice from ...petent authorities. With that object he wishes to make "Answers to Correspondents" columns a conspicuous ...ure, and, when queries are printed, he hopes readers kindly give enquirers the benefit of their assistance. communications must be written clearly on one side of the paper, and addressed to the* EDITOR *of* THE ...DEN, *accompanied by name and address of the sender.*

...he Editor welcomes photographs, articles and notes, ...he will not be responsible for their safe return. All ...enable care, however, will be taken, and, where stamps enclosed, he will endeavour to return non-accepted ...tributions.

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Offices: 20, Tavistock Street, Covent Garden, W.C.

THE AUTUMN-FLOWERING PHLOXES.

A SHOWY border planted entirely with Phlox paniculata and its numerous varieties is to be seen at Kew between the herbaceous ground and rockery. The border is not an ideal one for herbaceous plants generally, as it is heavily shaded, but it serves to illustrate the fact that positions which are too shaded for a general collection of plants may be turned to good account by using these Phloxes. The border in question is situated under the west side of a high wall, while immediately in front of it a Rose pergola exists, with trees a little distance away. Under ordinary mixed border culture it would not be likely to prove a success, but early in September it was a blaze of colour.

A great deal has been done of late years to improve the garden varieties of Phlox, and a much wider range of colour is obtainable than was the case twenty-five years ago. At that period several sorts existed, mostly reds and whites. Now it is possible to obtain varieties with salmon, scarlet, rose, pink, lilac, purple, violet and white flowers, while the trusses of bloom are very much larger and the individual blossoms several times bigger than those of the old sorts. A great transformation has also taken place in the shape of the flowers, for while those of the typical P. paniculata are somewhat star-like, with narrow, curled petals set wide apart, those of the later varieties are of uniform shape, with large, flat petals which join at the margins. In height likewise a great difference is noticeable, for while P. paniculata grows 5 feet to 6 feet high, the average height has now been reduced to between 2½ feet and 3 feet, while there are varieties which rarely exceed 1½ feet in height. It is a matter of taste as to whether the taller or shorter growing sorts are the more beautiful; but personally one is inclined to think that those of average height are to be encouraged. The very short ones look rather stiff, while those above the average height are inclined to become naked about the lower parts of the stems, especially in a dry season, before the flowers open. Although favourably disposed towards many of the newer varieties, it cannot be denied that there are some very old varieties of distinct merit, and it not infrequently happens that two or three varieties are found in cottage gardens which have existed there for a great number of years. The type itself is very ornamental and is well worth a position among the up-to-date varieties, both for the sake of comparison and for its own worth.

Phloxes like a moderately light but cool soil, with plenty of water during summer, and they prefer a situation shaded from the hottest midday sun. In very light ground it is advisable to apply a mulch of well-rotted manure in May to assist in keeping the ground cool and moist. They may be increased by means of cuttings of the young shoots, taken off as they appear in spring and inserted singly in 2½-inch pots, or several together in larger ones and placed in a warm propagating-frame. As soon as rooted they must be hardened off, potted singly into 3-inch pots, and grown in a cool, airy frame until they can be planted in May. Where a small stock only is required, the clumps may also, of course, be divided in the ordinary way during autumn or spring. It is advisable in all cases to remove the flower-heads as soon as the flowers are over, as this allows of more vigour being thrown into the production of good basal buds for the following year.

Except in the case of a few sorts these Phloxes are not expensive, and collections of fifty first-rate named sorts are advertised at prices varying from a guinea to 30s., and different quantities at correspondingly lower prices, with half-a-dozen priced from 2s. 6d. to 6s. Appended is a list of really good varieties with colour and approximate height.

White: Freifraulein G. von Lassburg, 3 feet, large heads of flowers; Mme. M. Carvalho, 3 feet; Snow Queen, very clear and good truss, 3 feet; Sylphide, an old but very good variety, with large heads of flowers, a very free grower; Tapis Blanc — this was voted an award of merit by the floral committee of the Royal Horticultural Society in 1906 — grows only 1 foot or 18 inches high and bears very large heads of good-sized, shapely flowers; and Mrs. E. H. Jenkins, good branching habit, large flowers, 3½ feet to 4 feet. White, with an eye or shading of another colour: Henri Murger, 2 feet to 2½ feet, white, with pink eye; Lady Grisel, white, tinged lilac, 2 feet to 2½ feet; and Nemphis, 3 feet, white, rose eye.

Scarlet and salmon: Adonis, 1½ feet, salmon, with darker eye; Coquelicot, 3 feet, orange scarlet, one of the best of all; Flambeau, 2½ feet, bright orange red; Georg A. Ströhlein, 2½ feet, large panicles of orange scarlet flowers; 2½ feet, large panicles of orange scarlet flowers; Jocelyn, 2 feet, scarlet, with darker eye; Molière, 3 feet, salmon, with white ring round a darker eye; Mounet-Sully, 3 feet, orange scarlet; Pantheon, 3 feet to 4 feet, salmon, large branching spikes; Regulus, 2 feet, salmon; and Toreador, 1½ feet, rose salmon.

Pink and rose: Balzac, pink, crimson eye, 3 feet; Champollion, rose, 3 feet; Gomez, 2 feet, rosy lilac; Lady de Ramsey, 4 feet, cerise; Lady

Molly, 2½ feet to 3 feet, pink; Mont Rose, rose, dark centre, 3 feet; and Pink Perfection, pink, with crimson eye, 2½ feet.

Other colours: Aquilon, 2½ feet, cerise; Amiral Jaures, silvery lilac, 1½ feet; Cœur de Lion, 3 feet, mauve; Coccinea, 2 feet, crimson; Crépuscule, mauve, with crimson centre; Eugénie Danzanvilliers, bluish, with white centre, 1 foot; Fernand Cortez, cerise, 2½ feet; Fantome, violet, white centre, 2 feet; Lord Kelvin, 3½ feet, crimson; Louis Blanc, 3 feet, purple; Pharaon, rose lilac, 2 feet; and William Ramsey, purple.

THE LATE MR. PETER BARR, V.M.H.

A GREAT HORTICULTURIST.

FLOWER-LOVERS, whether amateur or professional, will regret to hear of the death of Mr. Peter Barr, in the eighty-fifth year of his age. With his death passes away one of the most remarkable men of his generation—a man of great gifts, business acumen, and a heart that brimmed over with sympathy and kindness. Mr. Barr was a many-sided man, and worked his way into the affections of those who appreciated horticulture by the love of flowers that permeated his long and busy life. Our late friend has been called the "Daffodil King," and no one has inspired a greater enthusiasm for the flower he made especially his own than Mr. Peter Barr; but it is not of the Narcissi only that his name will live in our hearts for many a day, but of his general and deep knowledge of hardy flowers and of mankind. Wherever Mr. Barr went on his long journeys—undertaken at an advanced age—into countries beset with difficulties even to those in the prime of manhood he was enthusiastically welcomed. One by one the great nurserymen and amateurs of the last century pass away, but the name of Mr. Peter Barr will long remain a household word among horticulturists. The lovely Daffodil named after him—Peter Barr—will recall, whenever we see it, the memory of one who has brought a love of flowers to many an English home. On page 475 will be found a more exhaustive account of a well-spent life. His cheery presence was always welcome, and it will be a shock to those who saw him only on the Tuesday previous at the meeting of the Royal Horticultural Society to know that his death occurred with such startling suddenness. The evening before his death he was dining with his family in London, returned home to the residence of his son, Mr. George Barr, and passed away soon afterwards.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

September 28.—Royal Horticultural Society's Exhibition of Flowers and Fruit, Vincent Square, Westminster, 1 p.m. to 6 p.m.; lecture at three o'clock on "The Production of Horticultural Varieties," by Professor H. de Vries, the Second Masters Memorial Lecture.

October 6.—National Chrysanthemum Society. A Conference on Chrysanthemums, Essex Hall, Strand, 3 p.m.

October 12.—Royal Horticultural Society's Meeting of the Committees, 12 noon.

Royal Horticultural Society.—A show of home bottled and preserved fruits and vegetables (including fruits bottled in water and in syrup, jams, &c.) will be held on December 1 to 4, 1909 (Wednesday to Saturday). Awards of cups, medals and other prizes. Dried or bottled fruits and vegetables of any kind may be shown, subject to the conditions of (*a*) there being no chemical preservative or (*b*) artificial colouring matter used, and (*c*) of their being tasted by the judges; (*d*) provided also they have been grown in the British Islands. Tomatoes are considered vegetables. Bottles with glass lids are greatly to be preferred. For particulars apply to the Secretary, the Royal Horticultural Society, Vincent Square, S.W. Fellows are reminded that there will be no show at Vincent Square on Tuesday, December 21, and they are requested to erase it at once from their Fellows' tickets. The three committees of the society will sit upstairs on the 21st, and plants, &c., for certificate will be received, but nothing else.—W. WILKS, *Secretary*.

Spring bulb show, 1910.—A special exhibition of forced spring bulbs will be held at the Royal Horticultural Hall on March 8 and 9, 1910. The object of this show is to demonstrate the best varieties suited for gentle forcing, and exhibits of small and large collections are invited from amateurs and the trade. Royal Horticultural Society's medals will be awarded according to merit. At this exhibition the council also offer (subject to the general rules of the society) many valuable prizes presented to them by the General Bulb Growers' Society, Haarlem.

United Horticultural Benefit and Provident Society.—The monthly meeting of this society was recently held at the Horticultural Hall, Vincent Square, Westminster. Mr. Charles H. Curtis presided. Six new members were elected. The death certificate of the late Mr. J. H. Wilson was produced, and the amount standing to his credit in the society's books (£65 17s. 3d.) was passed for payment to his nominee, Mrs. Wilson. The amount paid for sickness since the last meeting was £47 6s. The annual dinner will be held at the Waldorf Hotel in October, particulars of which will shortly be given.

Blairgowrie fruit harvest.—With the end of the season at Blairgowrie, Perthshire, it is now possible to judge properly the character of the season as regards crop and prices, and it must be said that on the latter the record is an exceedingly unsatisfactory one. The market has been very dull and prices have been correspondingly low, it being estimated that the average price obtained for Raspberries, which were a very large crop, would not exceed £10 per ton. For some time sellers could not obtain more than £6 10s. and £7 per ton, a price which was unremunerative in the extreme. In no previous season were so many Raspberries allowed to go to waste, many tons being left unpicked, as the prices would not pay for the expenses of picking and handling. The quantity of fruit sent by rail was considerably larger than ever, about 2,700 tons net having been despatched. This is about a fourth more than last year. Unfortunately, the pecuniary results are not commensurate, and unless an increased demand is secured another season the area of fruit is likely to be rather lessened than increased.

New vegetables.—The following vegetables were grown for trial this season at Wisley, samples being placed before the fruit committee on the 14th inst., when each received three marks, which may be regarded as equivalent to an award of merit: Potatoes Duchess of York, long, flat kidney, from Mr. W. Holmes, Tain, N.B.; Vera O'Brien, flattish oval, from Mr. Atkins, Kildare; Widecombe Intermediate, from the Rev. J. Pickering, Ashburton; and Scottish Chief, a large, flattish round, from Messrs. Barr and Sons. A fifth variety was selected with the above for cooking, but when presented the centre of each tuber was found to be black and much diseased, although there was not the least external evidence of its presence. A very large and most successful trial of Cauliflowers at Wisley furnished the following as exceptionally good: Early Snowball, the very earliest, and King of the Cauliflowers, both from Messrs. Barr and Sons; Magnum Bonum, very fine heads, Messrs. Sutton and Sons; Dwarf Mammoth, Messrs. J. Carter and Co.; and Conqueror, Messrs. Vilmorin and Co. Seldom have finer or cleaner heads been seen than was found on all these varieties. Climbing Beans were in two sections. First were the ordinary Scarlet Runner, of which remarkably fine stocks were seen of Red Giant, pods long, narrow and pale green in colour, and Scarlet Emperor, pods also long and straight, but of a deep green hue; these came from Messrs. J. Carter and Co. Prizewinner, long, straight and handsome, for which Messrs. Sutton and Sons received a first-class certificate in 1892, and White Emperor, a splendid stock of the White Dutch, pods very long and handsome and a huge cropper, came from Mr. E. Beckett, Aldenham Gardens, Elstree. The other section comprised smooth-podded Beans. Count Zeppelin resembles in pod the old case-knife Bean; it is long and slightly bent, quite stringless and of delicious quality when cooked, from Messrs. Heineman, Erfurt; Dark Dun, heavy cropper, and Climbing Selected, of Tender and True form, Messrs. J. Carter and Co.; and Princess of Wales, a very heavy cropping, smooth, long-podding and early variety, Messrs. Sutton and Sons.

Glasgow and South Western Railway station prizes.—The awards in the competition for the best-kept station gardens on the system of the Glasgow and South Western Railway have just been announced, with the result that the following gardens are placed in the first class, receiving £6 each. The stations in this class have been much admired this season, and it is questionable if they have been finer in any previous year. The following are the names of the stations and station-masters in this class: Dalbeattie, Mr. W. B. Kirkpatrick; Annbank, Mr. Andrew Morren; Ruthwell, Mr. James Barr; Dalrymple, Mr. R. Fisher; Dalmellington, Mr. W. Taylor; and Carronbridge, Mr. W. B. Dunlop. Eight are in the second, six in the third, four in the fourth and six in the fifth. A new condition has been introduced, by which stations receiving £12 or more in prizes in three consecutive years will be debarred from competing for one year.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

"The Glamour of the Tulip."—In my article on "The Glamour of the Tulip," page 457, third column, line 16, I wrote *bases*, and the printer has put *hazes*. Could you kindly note this in your next issue, please? It is nonsense as it stands.—J. J.

Dressing Rose blooms.—It is greatly to be desired that before the National Rose Society issues another schedule of show classes a very special and severe prohibition of flower dressing will be inserted. It is marvellous that rosarians should so far attempt to improve on Nature in relation to flower form as to deface beautiful flowers in the way they do. Let those readers unfamiliar with the practice, as seen in some of the flowers at the recent autumn Rose show, conceive an ordinary tea-saucer, in the centre of which is a hen's egg, stood on end, with a flattened base, and they will thus form a correct estimate of what some of the exhibitors thought was improving their flowers. This dressing is done by pulling the outer petals back, leaving the solid centre a small cone. What a relief it was to turn from these degraded blooms to the really superb, natural and beautiful flowers set up by trade growers and others in bunches. Such banks of bloom as those formed were, indeed, glorious and commanded the heartiest admiration.—D.

A glut of Plums.—The Plum season ng now at its height, so far as this locality is cerned, it may be interesting to your readers now that in many gardens record crops are orted. Pruning never seems to have entered minds of Devonshire natives, with the result fruit and other trees, in this part of the nty especially, are in all sorts of fantastic pes and covered to their very tops with Ivy lichen. My trees are now pruned regularly, for three or four years have borne excellent ps, but this year's produce is a record one. the standard trees the crop is equally good, it has been found necessary to prop up some he branches, so great is the weight.—JOHN R. KSON, *Claremont, Lympstone, Devon.*

Mildew on Roses.—Last year I related experience in THE GARDEN with regard to -Effic and Jeyes's Cyllin Soft Soap as a rough check to a bad attack of mildew, also ing that I thought by using it early in the son mildew might be prevented. Early in e I gave two good dressings with Mo-Effic tion as directed and later in July a solution de from Jeyes's Soft Soap, and repeated these rnately during July and August. At the e of writing (September 14) there is not the htest trace of mildew among over 400 trees, eral other Rose gardens in the neighbourd being badly affected. I believe that the lin Soap solution only would keep the ease away, but, having had such a good effect using the Mo-Effic as well, I shall continue to both. There is no need to apply the dress- later than the last week of August or the t week of September.—E. E. F.

Roses in the Midlands.—I am pleased ind Mr. Melyneux again giving us his valu- experience on the newer Roses. I have ays found his notes most useful when deciding ch of the new varieties to grow. I am glad ake this opportunity of offering him my best nks. I know I am expressing the thoughts of eral, and I should say of a great many, others. wonder if Mr. Molyneux could add still ther favour, and when he uses the expression ather thin" he would compare the Rose, in particular, with some well-known variety, Pharisaer. This description might be used Countess of Gosford. Mr. Molyneux uses it self of Pharisaer, yet the latter is a good ividual Rose, while the former is good in our only. I find Mrs. W. J. Grant and its rt, Lady Faire, grow fairly well, quite enough give plenty of good Roses. Mme. Constant pert has done well this, my first, season with Mme. Jean Dupuy, also the first season, has opened well. I find, as Mr. Molyneux says, n Hole exceedingly good as a cut-back in wth, shape, size and colour. The Roses I find the best as individual specimens, good in wth, size and shape, are Dean Hole, Pharisaer, ly Ashtown, Mme. Abel Chatenay, Princesse Mertchersky, Frau Karl Druschki, Caroline tout, Mrs. D. McKee, Lady Faire, Clara tson, Mme. Jules Grolez, Earl of Warwick, ne. Segond Weber, Lady Roberts, Countess of by, Hugh Dickson, Duke of Wellington, A. K. lliams, Alfred Colomb, Victor Hugo, Frau a Rautenstrauch (drops its head), Maman het (does not like damp), Joseph Hill and M. ul Ledé (with me exactly alike), Liberty (not big grower, but very floriferous), Gustave nerwald (rather flat), Mrs. W. J. Grant ther hard in colour after July), Frau Peter nbert, Mme. Ravary and Le Progrès (both n, but the best yellow Hybrid Teas), Lyon se (quite a new colour and a good Rose), zabeth Barnes, and Betty (if only a little er the most beautiful Rose of all). I am carding Mildred Grant (although this grows ly well, as I get only an average of one good se per tree), K. A. Victoria (none too good a wer and will not open except in the very best ather), Mrs. John Bateman, Exquisite and mie (I do not like the colour), and Countess Caledon (bad shape).—A LEICESTER READER.

THE FLOWER GARDEN.

UNCOMMON BULBOUS FLOWERS FOR VASES.

UNDER the above heading I am giving a list and short description of a few flowers which are very seldom seen in vases, but which I can confidently recommend to those who are on the look-out for something out of the common.

Feather Hyacinths (Muscari plumosum) are interesting plants botanically, on account of all their flowers having reverted to stems. They give one the idea of a much-branched inflorescence with all the flowers cut off, having been bleached and then dyed a sort of pale rosy lavender. I have never seen any but very poor specimens growing in the open ground, and I imagine that it is necessary to grow them under glass to get the delicacy of colour which is so pleasing. A characteristic which should be noted is that, like the Hoop Petticoat Daffodil, the plants throw up their leaves long before the flower-spike. When the latter is first seen it looks like a little hard pointed button at the bottom of the leaves, and there it remains for ever so long without much outward change in its appearance. Then it elongates and slowly unfolds its curious, slender, tendril-looking flowers (stems), which take on a pale rosy lavender colouring in the process. When fully grown the whole is about 1 foot in height. Their adaptability for bowls and vases can be seen in the accompanying illustration.

FEATHER HYACINTHS.

Grape Hyacinths, if they are grown under glass, make excellent subjects for small, low vases. They are valuable because there are so very few real blue flowers, and an odd bunch or two in a room makes a very welcome change. The well-known Heavenly Blue variety is particularly good. It has wiry stems, and under glass they are longer than in the open, which is an advantage. A combination of the ordinary blue and white Grape Hyacinths (M. botryoides cæruleum album and pallidum) with Muscari Heavenly Blue makes a delightful little harmony in blue. Such floral arrangements consisting of different shades of one colour are very beautiful when they "go together."

Ixiolirions.—Although old flowers in English gardens are, comparatively speaking, almost unknown, it was a revelation to me when I first saw them, and last year I grew 100 in pots for cutting for the house. For this purpose they are ideal. They are slender-growing plants, about 1½ feet in height, with thin stems and long, narrow leaves, bearing loose, graceful umbels of pale blue tubular flowers. I have heard them described as blue Freesias, and the resemblance is a good deal closer than such popular descriptions often are. In light soils and warm positions they are hardy, and bloom in the first half of June. By growing them in a cool greenhouse they can be had in flower early in May. I am unable to say if they will stand mild forcing, as I grew them in pots last year for the first time. They last in good condition a long time in water, and when to this important characteristic we add the gracefulness of their habit and the pleasing colour of their blooms, their adaptability as cut flowers is apparent.

The Parrot Flower and Its Child.—In some lists Alstrœmeria psittacina is called the Parrot Flower, and as Alstrœmeria Erembaulti is a hybrid raised from it I have headed this paragraph as above. Quite by accident, or rather from necessity, as I was very short of a change of flowers from Sweet Peas, not having enough of either kind to make a vase by itself, I put the two together. The pale salmon rose of Erembaulti harmonises so well with the curious, deep crimson, green-tipped flowers of psittacina, and the whole vase has such a quiet, restful look about it, that it is sure to be "just the thing" for some place that has been difficult to fill. Erembaulti is not hardy, and must be grown in good, light sandy soil in a cool greenhouse. Psittacina is hardy, and should be planted 4 inches deep in light soil in a sunny position. It also does well as a pot plant with the same treatment as the former. Dormant tubers should be procured in late autumn before growth commences. JOSEPH JACOB.

[It is a great pleasure to read Mr. Jacob's contribution, and we hope it will bring this interesting class of bulbs into greater repute. We have grown them for many years, and found delight in their culture. Many bulbs may be grown in these simple ways.—ED]

SWEET PEA CHAT.

NEW VARIETIES.—Last season Mrs. Henry Bell was justifiably regarded as one of the finest cream ground Sweet Peas in cultivation, and it is likely to retain its favour with many growers; but for exhibition purposes it will, in all probability, be superseded by Improved Mrs. Henry Bell, which was grandly exhibited by Messrs. Dobbie and Co. There can be no question as to its superiority, and it would have been far and away better if another name had been given; it is quite distinct from Mrs. Henry Bell, and the names are almost sure to lead to a considerable amount of confusion sooner or later.

Kathleen Macgowan, one of Mr. Breadmore's introductions, is one of the most attractive in the lavender group, for it has a beautiful suffusion of colour that makes it appeal strongly to the ladies and also to some of the men. Gwendoline, which was sent to Reading by Messrs. House and Son, is not one of the largest flowers by any means, but the Cambridge blue shade should ensure it a welcome from those who do not consider that immense size is the only recommendation worth considering in a Sweet Pea nowadays. The flower is of fine substance and good form. Two other lavenders of which much has been heard in the last season are Mrs. Bieberstedt and Mrs. Walter Carter, the former from Messrs. Bell and Bieberstedt, and the latter from Messrs. G. A. Bunting and Co. Both carry waved flowers of considerable size and admirable for shape and substance. The first-named was true, while the second-named was perfectly true and especially beautiful in one row at Reading, but in another row it was most hopelessly mixed.

Marjorie Willis has been exhibited magnificently this year and has risen decidedly in general favour; it was distributed by Mr. W. Lumley in the same season as Constance Oliver, and appears to have been overwhelmed by the excellence and instant popularity of its cream and rose sister. The flowers are large and especially brilliant in colour, but they do not always come as attractively waved as one would like to see. Hannah Dale, which is a very distinct shade of maroon, continues a favourite; indeed, it grows in esteem, although it does not belong to the waved section that is so high in popularity. Dudley Lees and Silas Cole are worthy of note, but the latter has not yet been properly fixed, as far as I am aware. Prince of Asturias has more than maintained its reputation; the splendid blooms have attracted the attention of everyone, and the seeds have proved far more reliable than they did in previous seasons.

Messrs. Bide and Son sent to Reading a brilliant variety which they called Orange King, and it would have been impossible to find a more agreeable name, since it precisely describes the colour of the flower and, at the same time, indicates its general excellence. If we could only get one of this shade to stand in the sun it would be as welcome as any Sweet Pea in cultivation, for it is a colour that appeals strongly to all. A cream ground with a delicate rose stripe accurately describes Mrs. Tigwell, which was sent to Reading by Mr. Tigwell. It is a fine flower, but not one that everybody will run after, simply because of the comparative unpopularity of the colour. For downright ugliness—if there can be such a thing as ugliness in a Sweet Pea—commend me to some of the forms of Senator Spencer which have been seen on every hand this season. No doubt there are people who will cultivate them for their distinctness, but I am of the opinion that we can do very well without them.

Other notable varieties that have the name of Spencer attached to them are Queen of Spain, Coccinea and Othello, and of the trio the first-named is the most attractive in colour, while the last-named will probably become the most popular for exhibition. There are several others that perhaps deserve a word of commendation, but I feel that I have now taken up quite sufficient space with the novelties, and will, therefore, in my next notes turn back to the cultural questions, which, after all, are of supreme importance to the amateur. SPENCER.

AN ARCH CLOTHED WITH ROSE CRIMSON RAMBLER ON THE LEFT AND ROSE BLUSH RAMBLER ON THE RIGHT.

COLOURED PLATE.

PLATE 1383.

MICHAELMAS DAISIES.

THERE can assuredly be no more appropriate time to touch upon the merits of the Michaelmas Daisy than the very threshold of the season itself, when we are daily expecting the unfolding of a few more hundreds or thousands of the blossoms of these plants which make gay the garden at that particular time and render it a source of pleasure and delight far into the waning months of the year.

Asters botanically, though popularised to a far greater extent by their well-known names of Starworts and Michaelmas Daisies, these indispensable hardy garden flowers are known to all, are within the reach of all, and may be grown by all who possess a garden, large or small. Possibly, however, the very simple nature of their cultural requirements and the free manner of increase in not a few of the varieties or groups play the part of a stumbling-block and prevent their being seen to a far greater advantage in many gardens than is the case to-day. A scarce or a comparatively scarce plant is accorded attention in greater degree than a commonplace subject because of these very facts, and while the better side of the former is revealed by increasing care, the latter is just as frequently permitted to take care of itself, as we are wont to say, and not infrequently allowed to fall into neglect altogether. Neglect, indeed, of the Michaelmas Daisy in the past was the order of the day, as was evidenced by the thickets of starved and often leafless shoots and poor and often colourless blossoms. To-day, however, and for years past the lesson of the youthful plant and periodic planting has revealed all that wealth of beauty and charm that belongs to the Starwort by nature, and the rubbishy and untidy masses of former years have given place to fleecy clouds of grey and white and blue—the latter in almost endless gradations and shades—that make pictures in the garden and the landscape and make one long to live at peace with Nature and her children.

This is no fanciful picture, as those who have seen the best of these things in their unrestrained thousands, as at Gravetye or at Kew—now sweeping the grass or raising their heads near the evergreen bush or sombre Pine, or forming drifts that presently disappear in the landscape or the woodland—can testify. It is in these ways, thinly grouped, unfettered and unrestrained by stake or cord, that beautiful pictures may be created in park, woodland, or their near approaches, pictures which, while telling afresh of the "art which doth mend Nature," afford additional beauty and picturesqueness to the garden and its environment.

In the garden proper a certain restraint will be necessary, though even here we may cultivate these Starworts in a free and generous way and cause them to yield of their very best. The Michaelmas Daisy is of so accommodating a nature as to permit of its being planted over the long period from autumn to spring, the latter finding most favour in those instances where the borders are replanted each year. Popular beyond all expectations during recent years, the varieties are very numerous to-day; but in such groups as Amellus, cordifolius, Novi-Belgii, ericoides and Novæ-Angliæ the best varieties will be found. The heights range from 1 foot to 6 feet, hence all requirements may be suited. At another time I may be permitted to call attention to the best of each set.

In the accompanying coloured plate is given a representation of Beauty of Colwall, the most remarkable break in the Michaelmas Daisy that has yet been known. The plant, too, is one of great beauty, the flowers perfectly double, of a pleasing shade of lavender, and produced with the utmost profusion for weeks together. It is a plant for the florist and the private or market gardener. By reason of its unique character, it was given the exceptional award of a first-class certificate by the Royal Horticultural Society in September, 1907, and has since been introduced to cultivation by Messrs. T. S. Ware, Limited, Feltham, who kindly supplied the flowers from which the coloured illustration was prepared. E. H. JENKINS.

THE ROSE GARDEN.

NOTES ON NEWER ROSES.—III.

(Continued from page 459.)

HYBRID TEAS.

I AM understating the fact when I say that two out of every three new Roses are Hybrid Teas, and if the term "Hybrid Tea" has come to mean, and to be synonymous with, length of flowering period as well as freedom of flower, coupled with a vigorous habit of growth and a strong constitution, one would not have it otherwise, and I think there is little doubt that it has. An illustration will show what I mean. Take Frau Karl Druschki, for example, called by custom a Hybrid Perpetual, but denied its right to the title by not a few, who, when asked for their reason, do not say "its parents were so-and-so," but "it is too free-flowering for a Hybrid Perpetual," or "it flowers too well in the autumn," and must therefore be a Hybrid Tea, a curious *non sequitur*, but I think it accounts for many a Hybrid Perpetual getting a Hybrid Tea label. After all, it is not a matter of real importance, only it goes against the grain of some of us that anything connected with the Rose should not be absolutely correct. I find the first of the Hybrid Teas, taking them alphabetically, that figures in my notes is

Albatross, sent out in 1908 by William Paul and Sons of Waltham Cross.—I have not grown this Rose, but have seen it very good; it is a very large flower, ivory white in colour, with large petals that appear to fold over, however, rather than to come to a good point. Growth short and sturdy rather than vigorous, as one would expect from a White Lady seedling, which, I think, Albatross is. The flower is well named, as at a certain period the great outside petals seem to spread like outstretched wings. It should have a future before it, especially under glass. The raisers say it is more durable than Frau Karl Druschki.

Alice Roosevelt.—I do not know the raiser of this Rose, nor have I seen it yet in any English catalogue, but I can recommend it to trade and amateur alike. Its distinguishing feature is colour—a beautiful soft deep pink that, as far as I know, is quite distinct. It is a good grower and should make a fine bedding Rose, but is no good to the exhibitor.

Ards Rambler (Alexander Dickson and Sons, 1908).—It is a pity this Rose was sent out with the name that is attached to it. It was, I believe, so named back in the nineties, when possibly the word Rambler had not acquired the significance it now has; it has nothing in common with the ramblers as now known. The Rose does not ramble, and its flowers, which are produced singly, will come as large as any Hybrid Perpetual; colour deep cherry carmine. Should make a fine pillar Rose, and flowers can be produced up to exhibition form. When well established may fairly be called free-flowering for the type. Sweet-scented, with good foliage. Good in autumn.

Alice Koepke Demoy (1907).—This, I think, I may fairly say is not wanted. White, with an occasional tint of pale yellow at the bottom of the petal, best describes its flowers; and we have many similar Roses, some of which, Mme. Jenny Gillemot for instance, are better. I do not say that if looked for there may not be a difference, but it is not sufficiently apparent or of enough importance to make it worth while growing or perpetuating the variety.

Avoca (Alexander Dickson and Sons, 1907).—This is a good Rose, rather late in time of flowering, but none the worse for that. As a maiden the growth is so tall that, owing to its flowering only at the end of the shoot, it is August before one sees it, but it behaves better as a cut-back. Its flowers are a fine colour, a trifle on the thin side perhaps, but of excellent shape and form. One must call it crimson-scarlet, or perhaps scarlet-crimson would be more accurate. To those who prefer beauty of form to substance or weight it will strongly appeal. It is distinctly one of those Roses that improve on acquaintance. Strong grower, fine foliage, but tall in habit, good perfume. A gold medal Rose that has been well exhibited this season, which seems to have suited it.

Beatrice (William Paul and Son, 1908).—What little I have seen of this Rose I have liked. It has a good depth of petal (that promises well from the exhibitor's standpoint) and, consequently, produces a large flower of good colour, reminiscent of La France. When known better will be wanted. Has been well exhibited by the raisers at the Temple and Holland House. I wish I could add the National Rose Society's show, but——!

Betty (A. Dickson and Sons, 1905).—Hardly comes within my limit, and is only mentioned here to say that it has been finer in colour this year than I remember to have seen it, and appeared indifferent to wet; rather gloried in it than otherwise. Was in nearly every box in the early part of the season, garden Rose though it is.

Château de Clos Vougeot (Pernet-Ducher, 1908). What a colour! and what a pity it is not a better grower! but I am hoping it is only suffering from over-production, and that cut-backs and outdoor propagated plants will prove that it is not such a bad grower as appearances seem to point. Velvety scarlet, with a dash of brilliancy that I cannot put a name to, which is only seen in the young flowers, changing to dark crimson in the fully expanded bloom, Victor Hugo, Bardou Job and The Dandy, the colour of all three combined. The flowers are not large and the growth not vigorous; the foliage is good and scent delicious. Too small for exhibition; but if the growth improves will make a very useful addition to the few reds the garden has. My plants are, I am afraid, grafted, probably in heat, and have not gone away as one likes to see them after the first flush of bloom is over; but it deserves and will receive a further trial.

Comtesse Icy Hardegg (Soupert et Notting, 1908).—This is, I think, a real good Rose that has come to stay; its colour is very fine, bright, clear, deep carmine; quite distinct. One of the best of the newer Roses as far as my garden is concerned, and I have seen it doing well elsewhere. I think it will give us an occasional exhibition flower; but a bed of it would make a striking picture. It stands out by itself, very free and a good grower. The raisers have sent out many good Roses, and this one will not disgrace them.

Purley. HERBERT E. MOLYNEUX.

ROSES IN A NORTH LONDON GARDEN.

FROM time to time reports have appeared in THE GARDEN of the success obtained by readers in the culture of the Rose in outlying districts of London. The accompanying illustrations represent Roses growing in the garden of Mr. Howard Williams, Willow Cottage, Torrington Park, North Finchley, and although they do not by any means do the plants justice, they will at least give readers an idea of the size, vigour and floriferousness of the plants.

The arches were made with rough Oak poles and the height in the centre when erected was 7 feet 6 inches, this allowing the shoots to hang down and yet leave a free pathway beneath. Mr. Williams is a firm believer in cutting out the old flowering wood right down to the ground as soon as the flowers have faded; then, instead of tying the young rods into position at once, they are lightly looped to the arch, just to prevent them being damaged by wind. By this means sunshine and air, when we get any of the former, are enabled to reach the rods freely, and thus ripen them well before the winter. When all the leaves have fallen the new rods are tied in their proper positions.

ROSE BLUSH RAMBLER COVERING AN ARCH.

Mr. Williams attributes his success with these Roses to the above cultural attention and to the feeding of the plants which he practises. This consists of a thorough soaking of strong cow-manure water once a fortnight, commencing at the beginning of May and ceasing during the early days of July. The plants which are covering the arches were planted four years ago.

ROSE M. PAUL LEDE.

THE delightful colouring of this fine Rose is somewhat difficult to define, but perhaps cinnamon pink shaded ochre yellow would be the best description. It is a grand variety, one that is making itself a great favourite in all gardens

where the Rose is appreciated as a garden flower. There are no pretensions to exhibition merit in the variety, but its large, cupped-shaped blooms, although they are somewhat drooping, are of such an enchanting shade of colour that everyone must admire it.

The growth is moderately vigorous when the plant is established, although at first it is somewhat stumpy, but by no means frail. The large, massive foliage, of a deep green colour, contrasts grandly with the blooms. This variety is very free, producing quantities of exquisite buds, which become an intense orange yellow colour towards autumn, and they also possess a nice refreshing fragrance. Amateurs may sometimes look in vain for the name in catalogues, for frequently the prefix Monsieur is not attached. This is how the raiser, M. Pernet-Ducher, catalogues it. Why English growers override the raiser's mode of nomenclature is rather a mystery. I am glad to notice that the National Rose Society in their official catalogue gives the prefix Monsieur, although they drop the word Madame when naming Caroline Testout. However, perhaps

ONE OF THE MOST BEAUTIFUL OF GARDEN ROSES—M. PAUL LEDE. (*Reduced.*)

this is a minor point, only it causes trouble to the novice when searching catalogues.

The Rose under notice makes a splendid pot plant, and in strong heat the colour comes a most intense shade of coppery pink. This feature of deepened colour when grown indoors is peculiar to many of the Hybrid Teas having the orange yellow shading. The illustration is from a photograph taken recently in Messrs. Stuart Low and Co.'s nurseries. P.

ROSE MRS. A. R. WADDELL.

WE have in this new Rose a variety remarkable for its colouring. The flower is semi-double and not specially elegant in shape, but the intense ochre-red flowers attract attention immediately. It reminds me much of an old Tea Rose named Perle de Feu, except that it is a better grower. It is rather remarkable that two or three novelties having these very intense coloured flowers should have appeared almost simultaneously. P.

THE GREENHOUSE.

EELWORM IN LEAVES OF GREENHOUSE PLANTS.

FROM time to time correspondents send us specimens of leaves of Begonia, especially Gloire de Lorraine, and of Fern leaves showing brown marks on the under surface, or even quite through the leaf, and comment upon the damage done and the great difficulty they have experienced in getting the better of the pest, whatever it may be. In the Begonia the brown spots have a curious semi-transparent appearance, and the disease is frequently called rust, as though it were allied to the rust that attacks the Chrysanthemum or to that attacking the Carnation.

There appear to be two or three different causes producing this rusty appearance on the leaves, mites sometimes being the source of the injury; but very often no trace of mites can be found, and the microscope reveals instead the presence of innumerable eelworms buried in the tissues of the leaf. The particular eelworm doing the damage is known scientifically as Aphelenchus olesistus, and it not only attacks the plants mentioned, but also Chrysanthemum, Ficus, Coleus, Saintpaulia and other plants. The pest gains an entrance to the plant from the soil through the roots, making its way up the stem to the leaves, where the damage is done, and no external application can have the least effect upon it. It is far too small to see with the naked eye, and so the fact that the soil used in potting the plants may teem with the pest is overlooked.

The utmost precautions should be taken to ensure that the soil used, the pots and the pieces of plants used for propagation are all free from the pest. The better plan would be to propagate only from quite healthy plants, and not trust to the pieces of the old plants which were diseased in some parts being free because they do not happen to show brown spots at the time they are removed from the parent plant. Old potting soil should on no account be used, and it is necessary to see that none of it gets on to the potting-benches. The pots should be thoroughly cleaned, and would be better if dipped in hot water to ensure the death of the pest, and the soil itself may with advantage be steamed or heated in an oven before being used in which to pot the plants.

All the parts of plants that show the trouble ought, of course, to be burnt out of hand, and no pains should be spared to get rid of the pest as soon as possible after it makes its appearance.

HOW TO FORCE SPIRÆAS.

THOSE gardeners who have a greenhouse which they wish to keep gay during the winter and spring months are obliged to force a number of plants of various kinds for the purpose. The Spiræas, especially S. japonica, are very useful and exceedingly decorative. Very few kinds of plants bear such a quantity of foliage in as short a time, and few have such beautifully feathered flowers. Plants now growing in the open borders may be lifted and placed in pots when the old stems have died. The roots may also be purchased from the nurserymen and bulb merchants. Inexperienced cultivators very often make the mistake of using pots that are much too large for the clumps, and as the plants require a lot of water the surplus soil becomes sour and the foliage quickly turns yellow. The pots must be just large enough to contain the clumps and a very small quantity of loam, leaf-soil and sand mixed. Spiræas root very freely in moist leaf-soil.

The drainage of the pots must be perfect, but a large quantity of crocks are not needed; one large, hollow piece of potsherd and a few small ones are quite sufficient. On the crocks place a few freshly fallen tree leaves, and then complete the potting, leaving sufficient room at the top for watering later on. The crowns of the plants will not be damaged by exposure to frosts before the roots are put into the forcing-house, but the pots may be broken and the roots will suffer, too; therefore, protect the pots from severe frosts.

In order to encourage early root-action the pots should be plunged in a gentle hot-bed, but this is not absolutely necessary. The roots may be placed on the floor near the hot-water pipes or on the stages. If they are syringed several times daily, new growths will soon commence; then all that the cultivator need do is to keep the plants well watered and, when roots are plentiful, fed with liquid manure.

CAMPANULA PYRAMIDALIS IN POTS.

THE amateur generally, and the owner of a greenhouse in particular, cannot do better than have a nice stock of strong plants of the above in flower-pots. Seedlings raised this autumn will not flower next year, but one year old plants will. I mention this so as not to cause disappointment to inexperienced cultivators. This Campanula makes strong, thong-like roots, which soon fill a small pot; therefore, I advise cultivators to use pots at least 6 inches in diameter. The compost should be a mixture of good loam and leaf-soil in equal proportions, with a 9-inch potful of well-rotted manure and a 7-inch potful of coarse sand to a bushel of it. Pot the plants firmly and winter them on a bed of ashes in a cool frame, or, failing the frame, on a bed in a dry position in the open air. The stately spikes of white and blue blossoms respectively look grand in greenhouses, conservatories and windows during July, August and September. This Campanula is one of the most stately and beautiful of its family, and it should be more grown in our plant houses than it is at the present time. It lasts long in bloom. SHAMROCK.

TREES AND SHRUBS.

THE WILLOW SCALE INSECT.

A SCALE insect, known scientifically as Chionaspis salicis, is sometimes very prevalent on various kinds of Willow, Ash, Lime, Lilac and other trees and bushes, and if steps are not taken to check its progress the plants attacked are considerably weakened and eventually killed. A slight attack may pass unnoticed, but if the insects once become well established their presence attracts the attention of the most unobservant individual. The insects themselves are very small, and even the scaly covering is smaller and thinner than that of many scale insects. This covering is, however, the conspicuous part, and during summer it is usually light grey, darkening with dirt and from other causes towards autumn. After the death of the insects the scaly coverings remain on the branches, and living and dead together are sometimes so thick as to completely cover the bark.

Injury to the trees is caused by the insects sucking the juices, and it can readily be imagined that in the case of bad attacks a considerable amount of damage may be done in a single season. The less vigorous trees in a collection are usually the first to be attacked. The females lay numerous eggs beneath the scale-like covering, and these hatch out in spring. The young insects can move about quickly, and at this stage the disease is spread. After a short time they attach themselves to branches ready for sucking the sap, lose their legs and gradually acquire the scaly covering.

Affected trees ought to be sprayed two or three times in February and March, before the buds begin to burst, with a caustic wash composed of caustic soda (98 per cent.), 2lb.; soft soap, 1lb.; paraffin, 5 pints; and soft water, 10 gallons. To make this wash dissolve the soft soap in a gallon of boiling water, and while hot add the paraffin and stir into a creamy liquid. Dissolve the caustic soda in nine gallons of soft water, and into the solution pour the paraffin emulsion and mix thoroughly. Apply on a calm day with a fine-nozzled sprayer. It is, however, rather later in the year that the pest can be most effectually dealt with, though a large proportion of eggs may be destroyed by the above-mentioned wash. During April and May, when the insects are active, spray the trees once a week with a compound of paraffin and soft soap, using half a pound of soft soap and five pints of paraffin to ten gallons of water. At this time the caustic soda cannot be used on account of the young leaves; if the paraffin is kept well mixed, however, no harm will follow from its use, and it will be strong enough to kill the young insects. The Lilac that is attacked more frequently than any other is Syringa chinensis (sometimes called the Rouen Lilac), especially when it is growing on dry, sandy soil. In the event of a bad attack it will probably be necessary to spray for a couple of seasons before the disease is thoroughly stamped out. D.

THE AMERICAN MOUNTAIN ASH.

THE Rowan or Mountain Ash (Pyrus Aucuparia), which is so well known in British gardens and woodlands as an ornamental fruiting tree, is equalled in America in decorative value by its near relative, Pyrus americana. The two trees are very similar in many respects, for they both have pinnate leaves and large, flattened heads of coral red fruits, and both grow to about the same height. The American tree is, however, somewhat stiffer in habit, with thicker shoots and larger buds; the fruits also are often a little smaller. It is said to be widely distributed in America, and is found growing in moist ground from Newfoundland southwards to Carolina and Michigan. It rarely exceeds 30 feet in height, and its trunk diameter ranges from 12 inches to 18 inches. The leaves are composed of an indefinite number of leaflets, which are usually found to be from eleven to seventeen in number. The heads of flowers are from 3 inches to 6 inches across, and the clusters of fruit are about similar in size. In America some use is made of the bark for medicinal purposes. It is bitter and astringent, and is used as a tonic. Several varieties are known which differ from the type in the colour of the fruit or in habit. P. A. fructu albo has white fruits, P. A. microcarpa smaller fruits than the type, and P. A. nana is of rather dwarf habit and is of slow growth. The tree requires no special culture and succeeds in ordinary garden soil. W. D.

EUCRYPHIA CORDIFOLIA.

A RARE FLOWERING SHRUB.

(EUCRYPHIA CORDIFOLIA.)

THIS species is previously recorded as having flowered at the Coombe Wood Nurseries of Messrs. J. Veitch and Sons in 1897 and in Mr. Gumbleton's garden at Queenstown in 1907. In THE GARDEN, Vol. LXX., page 190, a correspondent writes of it as flowering in Scotland; but in this case there is evidently a mistake as to the identity of the specimen. The illustration in that issue shows unmistakably the larger, looser flowers and the divided and more horizontally placed foliage of E. pinnatifida E. cordifolia has entire, persistent leaves of a dark glossy green, which often grow almost erect. Its flowers are from 2 inches to 2¼ inches in diameter, almost circular, the petals being white and prettily fluted and enclosing a boss of golden brown stamens.

A plant of this beautiful Chilian shrub has recently flowered in these gardens. It was planted in the spring of 1906 in a somewhat sheltered border some 30 feet distant from the south side of a 9-feet wall, and was at that time about 3 feet in height. It now measures 8 feet in height and about half as much through. The only protection afforded has been a few Laurel boughs inserted in the soil around the base and tied together over the top in severe weather. Like many other shrubs from the same country it grows late, and was on September 11 covered with soft young shoots of a light brown colour. These, however, continue to mature even in cold, damp weather and, so far as our experience goes, suffer but little injury from frost. The natural soil here is a shallow sandy loam, and with the addition of a little peat and leaf-mould it seems to suit this shrub admirably.

J. COMBER.

Handcross, Sussex.

[The illustration is from a photograph of a flowering spray kindly sent by Mr. Comber.—ED.]

CLERODENDRON TRICHOTOMUM.

THE common name of "Kusagi" is applied to this plant in the eastern parts of Asia, where its natural home is to be found. It was introduced to English gardens many years ago, but never appears to have become really well known. This is to be regretted, for it is of decorative appearance whether in leaf or flower, and possesses the dual advantage of being a really good flowering shrub and blossoming during late autumn, a period when there are not a great many good flowering shrubs to be found. D.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Dahlias, Chrysanthemums and Michaelmas Daisies now give fine patches of colour in the flower garden and especially in the herbaceous borders. There is no time better than the present for taking stock, as it were, of these plants. It may be that the Chrysanthemums or Michaelmas Daisies

1.—SMALL BRANCHES OF ARBOR-VITÆ FROM WHICH CUTTINGS CAN BE MADE.

are not growing in the best positions suitable to them in the borders. Notes must be made of these facts and what is needful for their improvement, as all alterations must be made during the autumn and spring months. If the Dahlias are wrongly placed, then the plants can be properly arranged next year when young ones are put out. Holly hedges and specimens growing on lawns may now be pruned. The knife only must be used. Odd shoots should be cut off, but no attempt must be made to cut off the shoots with shears, as this would result in the severing of leaves wholesale, and so spoil the appearance of both hedges and bushes. By depending solely on the knife the work of trimming may be more prolonged, but it will be more satisfactory. The work of rolling lawns must now be commenced in earnest, as worm-casts are becoming more general and they make the lawn look very unsightly. If a lawn is regularly rolled after the worm-casts have been lightly brushed to and fro, it will be greatly improved, whether the soil be of a light or heavy nature. Falling leaves must be carefully brushed up and husbanded in a heap in some out-of-the-way corner. The resultant leaf-soil will be of great value, and only gardeners who are able to at most collect the leaves from a few trees know its real value.

Vegetable Garden.—As slight frosts may occur any night now, it would be a wise plan to examine all the autumn Cauliflowers and to break down a few of the larger leaves over the exposed flowers. Some of the latter may be well covered with the younger leaves in a natural manner, but even in their case it is advisable to cover also with large leaves, as the young ones are too tender to withstand frosts. Do not neglect the Celery. The wise cultivator sees to it that all earthing-up is done in a thorough manner before the frosts come. All soil must be dry when pressed around the stalks, and care must be taken to avoid letting any fall into the centre of the plants. A few rows of Celery neatly earthed-up look very well in a garden. Thin out late Turnips rather freely now, as those remaining will bulb better and quicker. Another sowing of winter Radishes may now be made in the lightest soil in the garden. Dig the ground deeply and well break up the lumps before sowing the seeds. The plants from former sowings must be freely thinned out, else the crop generally will be a poor one.

Fruit Garden.—No time should be lost now in getting all the old fruiting canes cut out from the Raspberry plantations. Some persons in removing the old canes strip off the leaves from the young ones wholesale by violently pulling away the former. Of course, it is now very near the time when the leaves will fall off naturally, but if they are stripped off prematurely some damage to the cane results. It is far better to cut out altogether a few of the young canes also, in order to admit light and air to the others where they seem to be somewhat overcrowded, *i.e.*, growing closer together than 4 inches. Make preparations for the planting of new fruit trees by getting the ground deeply trenched.

Greenhouse and Frames.—The housing of Chrysanthemums will now claim the close attention of the enthusiastic cultivator. In the first place it is necessary to clean the stages and the inside of the structure generally, and to make plans so that the Chrysanthemums will not take up room to the detriment of other occupants of the house. It is advisable to begin the work in good time, so that faded leaves may be picked off the plants and all pots washed first. Better results follow when everything about the plants is clean. All varieties showing very prominent buds must be placed under cover first, as if the florets are wetted by rain or dew they damp off afterwards. Certain plants may be removed to frames to make more room in the greenhouse. The plants so renewed must be suitable ones.

B.

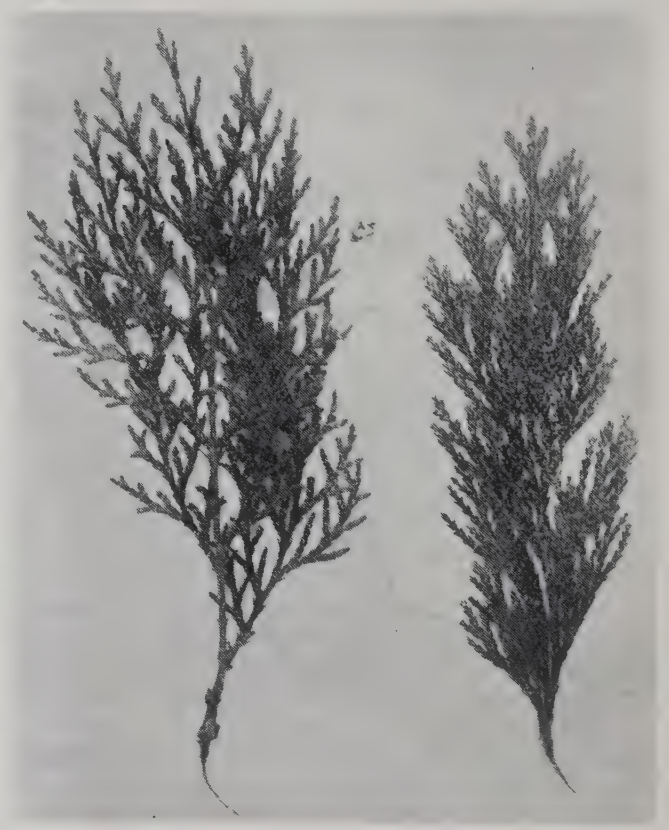
PROPAGATING THE ARBOR-VITÆ.

THE Arbor-vitæ is the common name of a race of hardy evergreen coniferous trees and shrubs that is known to the botanist under the name of Thuya or Thuja. It is a subject of great value for garden embellishment, and at its best is distinctly beautiful and ornamental. It is by no means a difficult plant to grow satisfactorily. Opinions may differ somewhat as to the time to plant the Thuyas, but, generally speaking, September to November for autumn planting and February to April for spring planting may be regarded as suitable periods in which this work should be done. Some authorities are content to plant in either September or May. If planted in any ordinary good garden soil these plants invariably do well, but their prospects are brightened by planting in good loam.

The Chinese Arbor-vitæ (Thuya orientalis) makes an excellent plant for mixed shrubberies, and is also excellent as a subject for an evergreen hedge. Extremely beautiful is the golden-leaved form of this same species, which is known as T. orientalis aurea, both sorts attaining a height of from 20 feet to 25 feet. Other excellent species are: T. dolabrata, with flattened branches, a handsome tree well adapted for small lawns or for growing as a hedge. T. dolabrata lætevirens is a dwarf form of the last-named, and both are natives of Japan. T. gigantea, also known as T. Lobbii, is a very popular tree, and deservedly so. It is an excellent plant for hedges, and its foliage is much brighter than the varieties mentioned above for the same purpose; it is one of the handsomest of all the species. The American Arbor-vitæ is known by the botanical name of Thuya occidentalis. Of this species there are several beautiful varieties having variegated foliage. Space forbids our mentioning more species than those already described. Suffice it to say they may all be propagated by cuttings with comparative ease.

To simplify the matter for the beginner, growths of two distinct species are shown in Fig. 1. These were two small pieces cut out of well-grown trees, and when severed they were some 8 inches to 10 inches in length. From growths of this description it is possible to detach several shoots suitable for making into cuttings. Fig. 2 represents the same two species. Here we have side shoots that have been detached from growths similar to those shown in Fig. 1. The side shoots are better described as branchlets, as they are small branches of the original ones. The length of these branchlets should be anything between 2 inches and 3 inches, and if they are taken off with care they may be removed with a heel, as shown, at their base.

Having detached our shoots, the next thing is to prepare them as cuttings, that they may be propagated successfully. In Fig. 3 the cuttings properly prepared and ready for insertion are



2.—SIDE GROWTHS DETACHED FROM THE BRANCHES IN FIG. 1, BUT SHOWN ON A LARGER SCALE.

shown. Note how the lower, small, tooth-like leaves have been removed to about half the length of the shoot. This preparatory work is necessary if the rooting process is to be all that is desired. In some cases (where there is no heel) it is better to cut through the shoot just below a joint, and in others to allow the heel to remain, as root formation is more rapid in consequence.

3.—CUTTINGS PROPERLY PREPARED AND READY FOR INSERTION.

Cuttings should be inserted in sandy soil, placed in a cold frame or in a semi-shaded position where a hand-light may be placed over them. The latter method is an excellent rule to follow where comparatively few plants are to be reared. Where the demands are larger the cold frame should be requisitioned, as quite a large number of young plants may be raised by these means. Sandy soil for propagation purposes is absolutely essential to success. Soil from a spent Cucumber-frame, with the free admixture of coarse sand, and this passed through a sieve with a half-inch mesh, answers admirably for propagating purposes. This should be placed in the cold frame to the depth of several inches—say, half-a-dozen or rather less—and be levelled and made firm by the aid of boards. Proceed then to sprinkle silver sand over the surface, and subsequently insert the cuttings half their depth in rows, observing a distance between the cuttings of about 2 inches, and rather more space between the rows. Be particularly careful to press the soil firmly at the base of the cuttings, otherwise failure to root may ensue. Water in when completed, using a fine-rosed can for the purpose. Keep the cold frame fairly close during the rooting process, at the same time shading from bright sunshine during the daytime. D. B. C.

LIFTING BEDDING-OUT FUCHSIAS.

FUCHSIAS look charming in the flower garden, where of late years they have been somewhat extensively grown. As it takes at least two years to grow a medium-sized specimen, every effort ought to be made to keep such plants in good condition throughout the winter. This does not mean that the plants must be maintained in a growing condition, but in a leafless state. A specimen grown in a flower-pot all the year round gradually loses its leaves in the autumn; one grown in the open border and lifted does the same, but later, owing to the different conditions obtaining. It would not be right to suddenly check all growth in a vigorous and full-leaved plant and so cause all the leaves to fall prematurely, as the stems would shrivel and not keep sound in the winter; a great portion of the specimen would die and have to be cut away in spring. Pots varying in size, according to the different sizes of the plants, must be prepared, and also a compost of leaf-soil and loam in equal proportions. If the ground is dry it must be well soaked before the plants are lifted. Some soil will adhere to the roots, but the greater portion will fall off. Do not cut away any of the roots even if they are rather large and straggling, but so arrange them that they lie at the base of the old ball of soil in the new pots. Only a small quantity of new compost will be needed in each pot. When all the plants are potted, place them in a deep frame or in a cool house. Give one good watering, but afterwards, unless the soil gets very dry in the pots, light syringing will be all that is required. The treatment must be such that it will have the effect of causing the leaves to very gradually fade. When nearly all have faded, place the pots close together in a cool but frost-proof structure.

LIFTING AND POTTING OLD BEDDING-OUT PLANTS.

As a rule the old plants are left in the borders as long as possible—very often until the first autumn frost has just nipped the leaves. When they are lifted the roots, if large and numerous, must be judiciously cut back, and also the largest leaves cut off. Never mind if the plants present a somewhat sorry appearance when potted after such treatment; they will be all the better for it in spring. Use a good potting soil without manure in it, and place the plants in an airy greenhouse or pit. Keep the soil rather dry and remove fading leaves. A temperature of 40° to 55° will do if the atmosphere is kept dry. SHAMROCK.

THE TOWN GARDEN.

VIOLETS.—There are few persons who are not fond of Violets at all times, but especially during the winter. In town gardens Violet-growing in frames may be made a very pleasant hobby. Cultivators of these charmingly fragrant flowers in the open borders miss much real enjoyment if they do not also grow them in frames. When the snow lies on the ground, covering nearly every border plant, it is delightful to be able to raise the frame-lights and gather a few bunches of sweet-scented Violets; it is compensation in no small degree for the loss of border flowers at the time.

HOW TO GROW THE PLANTS IN A FRAME.—They can be grown successfully without any artificial heat with the protection afforded by the frame only; but it is much better to make up a hot-bed in the frame if the material, leaves and littery manure, is available. Having put in a firm hot-bed, good loam to a depth of 1 foot must be placed on it, so that the surface of the soil is about 9 inches from the glass. Strong plants must be put in a little more than 1 foot apart and duly watered. The glass lights ought to be kept on the frame during the week following the planting; but afterwards plenty of air must be admitted, both day and night, except when frosts prevail or fogs are troublesome. Mats must be placed on the glass to prevent the plants being frozen; cool, dry weather will prove beneficial, and during very fine days the glass lights should be taken off. After the Violets are planted and the soil made moderately firm around their roots, nothing further need be done to them beyond removing any faded leaves and an occasional loosening of the surface soil with the aid of a pointed stick. When water is needed, sufficient must be given to thoroughly moisten the whole of the soil. If this be done, probably only two waterings will be required until after Christmas. The best varieties for growing in frames in town gardens are: Double, Neapolitan, Marie Louise and De Parme; single, Princess of Wales. The leaves of the last-named variety are large and strong and withstand fogs better than any other variety. If only one sort be grown I would recommend it.

NEW ROSE BORDERS.—Roses are best planted in November; but it is not a wise plan to defer the preparation of the ground until the actual date of planting. Avoid making the necessary preparations and doing the work of planting in a hurry, because when this happens there is a risk of putting in the plants in a very haphazard manner. At the present time the town gardener should decide upon the types of Rose and the number of plants of each that he intends to cultivate, and select suitable borders for them. Having done all this, he must forthwith commence to prepare the ground by deeply digging the soil, or trenching it to a depth of at least 2 feet. The subsoil must be well broken up, but left below. On the other hand, the surface portion must be left in a lumpy state until the time for planting comes. It is not absolutely necessary to put in any manure at the time of digging, as manure can be put on in the form of a top-dressing, and feeding with liquid manure can be done in due course; but it is advisable to put in some well-rotted manure now if the latter be available. Not only must whole beds be treated in this way, but the positions where single specimens are to be planted for training over arbours and arches, on trellises, poles and walls. If this timely work be done, the very best can be obtained from the plants in the form of vigorous growth and fat flower-buds early.

THE REMNANTS OF SUMMER BEDDING PLANTS.—The old plants now growing in the flower garden must be lifted and put in boxes or pots if they are to be kept through the winter for future use. It is a big mistake to wait until the first frost has "just touched them" before lifting, as such plants rarely prove satisfactory afterwards. The large leaves must be trimmed off and the plants potted in a light, sandy compost. A cool, well-ventilated glass structure is the best place for them in winter-time, though they may be kept with success in a spare room. AVON.

4.—CUTTINGS OF DIFFERENT VARIETIES OF THE ARBOR-VITÆ INSERTED IN SANDY SOIL TO BE COVERED WITH A COLD FRAME.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUIT GARDEN.

VINE BORDERS.—Where Vine borders have got into a bad state and the crops of Grapes produced annually are not satisfactory, the roots may now be lifted and replanted in sweet and suitable compost. First get the soil thoroughly mixed and the quantity sufficient to meet the requirements in readiness; then dig out a trench at the opposite side of the border to the stems fully 2 feet deep and gradually remove the soil from among the roots (preserving the latter as much as possible) until all has been taken away. Put the drainage right, and over this place turves grass side downwards and then commence refilling with the mixed compost. Relay all the long roots at different depths. Incisions may be made at intervals along the long, bare roots, and all damaged ends should be cut off with a keen-edged knife. After the whole has been completed and the border filled about 6 inches higher than required to allow for sinking, give a gentle watering with slightly tepid water to settle the soil among the roots. Keep the house a little close for several days and syringe the rods and leaves twice daily in fine weather, it being essential to keep the foliage hanging on the Vines as long as possible. Shade a little in bright weather till the Vines have partly got over the operation, when more air may be admitted. Do not force the Vines too hard next year, and crop lightly. Encourage plenty of new growth. If the borders are outside, protect them from wet should much rain fall, and in winter from frost and snow.

Peach Houses.—If young trees have been trained and prepared outside to take the place of unsuitable varieties or worn-out ones, now is a good time to lift and replant them; good trees prepared a few seasons outside, if carefully attended to, usually bear a very nice crop the following season. See that the drainage is perfect and the soil sweet and containing sufficient lime for stone fruit. A good fibrous loam, with a little burnt wood-ashes, sweet, well-decayed manure, lime rubbish and a little bone-meal rammed rather firm will suit Peaches and Nectarines well. Lift the young trees very carefully, and after the planting is completed water to settle the soil. Keep the trees well syringed daily and shade a little in very bright weather. Good varieties will be found in Hale's Early, Dymond, Violette Hâtive, Stirling Castle, Bellegarde, Crimson Galande, Sea Eagle and Walburton Admirable. Nectarines: Lord Napier, Pine Apple, Humboldt and Elruge; but there are many other good varieties to select from.

Strawberries.—Keep those in pots for forcing free from weeds and runners and stand in a sunny position to encourage sturdy, well-developed crowns; a little manure-water or Clay's Fertilizer supplied to the roots will greatly assist the plants at this season, and see that they do not suffer from over-dryness at the roots.

PLANT DEPARTMENT.

Callas.—If not already lifted and potted, these must receive immediate attention. They should have good masses of soil adhering to the roots and be put into suitable-sized, well-drained and clean pots. Water well and stand them in a shady position for a few days. If the weather is very cold, stand the plants in frames and put on the lights. Salvias, Eupatoriums, Solanums and other plants which were planted out last May should be potted up.

H. MARKHAM.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

PLANT DEPARTMENT.

STOVE PLANTS.—With shortening days and waning sun-heat less shade will be necessary in general, but more particularly to flowering plants, which are benefited by full exposure to the sun's rays, providing these are not too powerful. In the case of permanent shading brushed upon the glass, this is easily reduced by being gently removed with a hair broom when damp, while roller blinds may be let down for a few hours at midday, as may be considered prudent. In structures where creepers are extensively grown upon the roof, these may be freely thinned, but not at the same time as the outside shading is reduced, or mischief may follow from too sudden exposure.

Allamandas and Stephanotis may now be gradually brought to a resting state by reducing the water supply. The latter will be past flowering, but the former may hold out for some time and make a good display and prove useful for many purposes.

Poinsettias, Eranthemums, Sericographis, Cypripediums and winter-flowering Begonias that until now have thriven well in slightly heated or even cold frames must be given better quarters and some degree of warmth, especially at night, or the foliage will surely suffer.

Anthuriums still growing freely would be benefited by applications of weak manure-water to enable them to complete their growth.

Palms and other very similar fine-foliaged plants should not be shaded more than is really necessary, but it is unsafe to entirely dispense with the blinds before the end of the month, as sudden bursts of bright sunshine may yet occur that would greatly mar the season's work and hopes by discolouring the foliage. In bright weather a good syringing once a day will aid in keeping the plants clean and healthy, while air admitted on all favourable occasions will tend to harden the foliage that it may the better withstand the winter and the trying conditions under which, as decorative subjects, the plants may have to undergo.

HARDY FRUITS.

Gooseberries.—As the bushes are cleared of fruit and the protecting appliances removed, it is advisable, where time can be spared, to partly prune by cutting out any gross or misshapen branches or others too near the ground that interfere with the working of the soil in winter. Owing to the very heavy crops these have borne, it may be presumed that exhaustion prevails, as also the probability of a light crop next year. To remedy this to some extent, catch tanks about stables and cattle-houses might with much advantage have their contents, when diluted to a safe degree, applied about the roots, or, failing this source, any artificial manures on hand might be very similarly employed.

Raspberries, Loganberries and Blackberries past the fruiting stage may have the old bearing wood cut away and a sufficient quantity of that of the current year selected and secured to the respective positions assigned to each species.

KITCHEN GARDEN.

Cabbages for spring use should be planted as soon as possible, choosing a warm, fully exposed site. Close planting may be practised, 15 inches between the rows and about half this distance from plant to plant being ample, as small-growing varieties are favoured, and it is seldom that these attain full development before they are made use of, hence more room is always being given to those somewhat later than others in growth.

Endive.—When large enough and quite dry, the leaves may be gathered together and the whole plant covered with an inverted flower-pot.

JAMES DAY.
(Gardener to Sir Malcolm M'Eacharn.)
Galloway House, Garlieston, Wigtownshire.

NEW PLANTS.

CATTLEYA IRIDESCENS SPLENDENS.—This is a very beautiful and unique member of this family, the colour combination being of a very pleasing character. The sepals are rather narrow and lanceolate with acute apices, the petals being very broad and fan-shaped. The colour of both may be described as a sort of chamois yellow with a slight iridescence of purple showing through the whole; those who know the colour of the pale flowers of Wallflower Eastern Queen will get a good idea of the colour of the sepals and petals of this Orchid. The labellum is exceedingly beautiful, the lower portion being the richest possible yellow, followed by a narrow band of paler yellow, then a broad band of purple and, finally, a narrow edging of cream colour. A very handsome flower. Shown by Messrs. Stanley and Co., Southgate, London, N. Award of merit.

Dahlia Red Admiral.—A very charming addition to the Cactus-flowered set, the scarlet-coloured florets with white tips rendering the variety conspicuous.

Dahlia Jupiter.—A striped variety of good form, the scarlet and yellow being fantastically displayed.

Dahlia H. H. Thomas.—A rich reddish scarlet with well-incurving florets.

Dahlia Indomitable.—This excellent variety is coloured a warm cerise pink shade, which should prove excellent for artificial light.

Dahlia Iolanthe.—A pleasing terra-cotta red which is quite distinct. This set of five excellent varieties of Cactus Dahlias came from Messrs. Stredwick and Son, St. Leonards, and each received an award of merit.

Dahlia Little Beeswing (Pompon).—The colour is orange red and the form quite one of the most perfect we have seen. From Messrs. Keynes, Williams and Co., Salisbury. Award of merit.

Dahlia Edward Mawley (Show).—A very handsome self-coloured variety of crimson-red tone. Exhibited by Mr. Charles Turner, Slough. Award of merit.

Dahlia Prima Donna.—A very handsome pure white Cactus variety of large size. In every way a good flower. From Mr. H. Shoesmith, Woking. Award of merit.

Chrysanthemum Leslie.—An early-flowering variety of dwarf habit with rich golden yellow flowers produced in profusion. A good bedder and excellent for cutting. From Messrs. William Wells and Co., Merstham. Award of merit.

Potentilla atrosanguinea Gibson's Scarlet.—This brilliant-flowered variety belongs to a section remarkable for free and continuous flowering, the colour alone rendering it welcome and conspicuous at any time of the year. The blossoms are single.

Helenium Riverslea Beauty.—This variety is stated to have been raised from H. autumnale variety and H. grandicephalum striatum. The florets are yellow, the disc of a brownish crimson. These two were exhibited by Mr. M. Prichard, Christchurch, Hants, and each received an award of merit.

Rhus sinica.—A very handsome and well-coloured species, which should prove most effective in groups or as isolated examples. Shown by Messrs. Paul and Son, Cheshunt. Award of merit.

NEW FRUIT.

Strawberry Laxton's Perpetual.—This is the result of a cross between Monarch, a large and robust summer Strawberry, and St. Joseph, the well-known autumn variety. The fruits are produced in large trusses similar to those of Monarch, and the individual fruits resemble, both in colour and shape, the summer parent. The colour is a good rich scarlet-crimson and the flavour decidedly good. We regard this variety as a decidedly valuable and unique addition to

the autumn-fruiting Strawberries, of which there are all too few. Shown by Messrs. Laxton Brothers, Bedford. Award of merit.

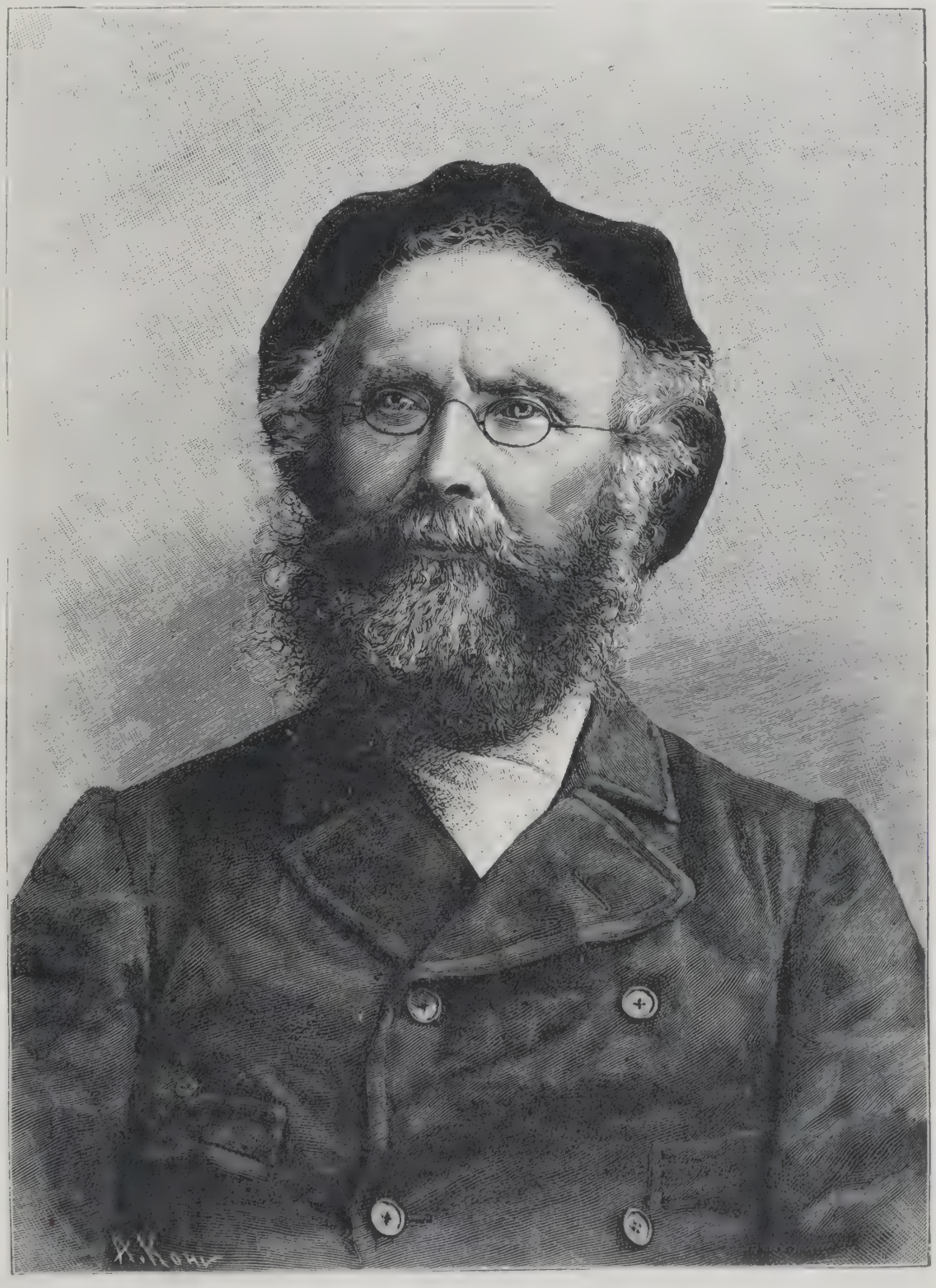
All the foregoing were shown before the R.H.S., when the awards were made.

DEATH OF MR. PETER BARR.

FOUNDER OF THE FIRM OF MESSRS. BARR & SONS.

WE record with deep regret the death of Mr. Peter Barr, who was one of the greatest horticulturists of his age. As mentioned on page 466, Mr. Barr was in the Horticultural Hall on the previous Tuesday in the best of spirits and enjoying the conversation of his many friends. His cheery presence was always welcome, and he will be sadly missed among those who, since his retirement several years ago, have become better acquainted with his great gifts. Always ready to give of his exceptional knowledge of hardy plants, preserving to the last his sparkling optimism, and with an ever-deepening love of flowers as the years sped by, no man of his generation will be more missed. His end, we feel, was the one he would have chosen. On the previous evening he was dining in London with his family, having arrived for a stay of three weeks. He was in his usual high spirits before retiring to rest at the house of his son George, but shortly afterwards passed away from heart failure, a peaceful ending to a busy and useful life. Mr. Barr's father's silk-weaving factory at Govan was one of the most famous in the country, but the son had no love for the business. His boyhood's heart went out to the flowers about him, and the Tulip beds in his father's garden were a source of delight in those far-off years. The Christmas volume of THE GARDEN for 1893 was dedicated to Mr. Peter Barr, and in an account of his life it is mentioned that his birthplace was Govan, then a prosperous weaving village on the Clyde. At an early age he was employed in the seed shop of Mr. James Thynne of Glasgow, eventually taking full charge of the seed department when but twenty years of age. His next appointment was with Messrs. Daly, Drysdale and Co., seed merchants, of Newry, County Down, Ireland, where he passed through the terrible famine years of 1846-47, caused by the general failure of the Potato crop. From Newry he went to Messrs. Richard Smith's nursery at Worcester, then only sixteen acres in extent, and a year or two afterwards he was appointed manager to Messrs. Butler and McCulloch of Covent Garden. After some years of experience in the London seed trade, Mr. Barr started as a seedsman in the autumn of 1861 under the style and title of "Barr and Sugden." During many years Mr. Barr devoted much attention to garden plants as well as seeds, beginning with the Daffodils, and studying also other groups, such as the Scillas, Lilies, Hellebores, Pæonies and Funkias.

Mr. Peter Barr was best known for his labours in collecting and popularising the Narcissi and the Daffodils. These once much-appreciated spring flowers, like others, however, had been thrown aside or neglected during the artificial epoch of flower gardening known as "bedding out," and it is to Mr. Barr that we are in the main indebted for again collecting and exhibiting them in London and elsewhere, and so obtaining for them that attention and culture which they receive to-day. An impetus was given to his labours in this direction by a correspondence with the late Mr. Leeds of Longford Bridge, near Manchester, who had raised hybrids and seedlings of these flowers, which, as shown at South Kensington, had been much admired, although at that time there was little or no sale for them. This correspondence continued until near the close of Mr. Leeds' life, when it was rumoured that "if his Narcissi were not sold before his death, he had directed in his will that all should be destroyed!" This was so alarming that Mr. Barr consulted the Rev. John Nelson and other friends, and the result was a syndicate which purchased Mr. Leeds' stock. While cleaning and selecting these varieties at his old bulb grounds at Garrett Lane, Lower Tooting, Mr. Barr accidentally heard that Mr. Milner of Sheffield had a stock of these bulbs, and he went to Sheffield to see them, and found that they had been raised as seedlings by Mr. Milner's brother-in-law, Mr. W. Backhouse of St. John's, Wolsingham, Durham, who had sent consignments of new seedlings to Mr. Milner from time to time. Mr. Milner's stock was divided between Mr. Barr and his friend, the Rev. John Nelson, and so the Backhouse seedlings came into far more prominent notice than they had before attained. Not only did Mr. Barr collect all the old species and varieties of Daffodils from all sources, but he also, at much trouble and no little cost, selected and named the seedlings raised by the amateurs above named. He made two or three special journeys to Spain, Portugal and the Maritime Alps in quest of wild Narcissi.



THE LATE MR. PETER BARR, V.M.H.

For many years the firm of Messrs. Barr and Sons has been controlled by the three sons, Rudolph, William and George, and all who are acquainted with these earnest and successful horticulturists will condole with them in the loss of their esteemed father. But the mantle of Peter Barr has fallen on worthy shoulders; the three members of the firm are devoted to their business and have a love of flowers in their hearts. Since his retirement Mr. Barr had travelled widely, and lived latterly with his sister at Kirn in Scotland, gathering together collections of Narcissi, Pansies and other flowers. Our readers will miss his interesting and instructive notes. He was a great friend to THE GARDEN, and with his increasing years gained the high appreciation of a host of gardeners of all degrees. Not to have known Mr. Peter Barr was to have missed a picturesque figure in horticultural circles. The funeral took place at Islington Cemetery, East Finchley, last Tuesday.

WILLIAM FOWLER.

WE have this week to record the death, on September 12, of Mr. William Fowler, a veteran gardener, who died after a brief illness at his home, Boswall Cottage, St. Boswell's, N.B. Mr. Fowler, who retired from active work about four years ago, was eighty-one years of age, and had a long and successful career as a gardener. He was born at Eyemouth, but served his apprenticeship at Paxton House, Berwickshire. Thence he went to Tullieallan Castle, Perthshire, afterwards going to an appointment in Yorkshire. He then proceeded to the United States, spending about nine years in Philadelphia. Returning to his native country in 1861, he became head-gardener to Lord Polwarth at Mertoun House, remaining there for forty-four years, until his retirement four years ago.

"Country Life" for September 25 contains, among other articles: "Country Home: Stoke Edith" (illustrated); "Tale of Country Life: The Rat-catcher," by Adam Lorimer "Notes on the Art of Treillage—II." (illustrated), by H. Inigo Triggs; "A Canadian Backwater," by H. Frank Wallace; "Bringing up a Young Cuckoo" (illustrated), by R. B. Lodge.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR OF THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Small bulbs of Daffodils (*H. B.*).—You ask whether small bulbs of these planted in reserve ground ever attain to flowering size in this country. Yes, millions do, while many thousands of seedlings have been raised and flowered also. If the offsets are quite healthy at the start, the only other thing needful is good sandy soil, with a fairly free drainage. If you cannot achieve this, bulbs, soil, or both, must be at fault.

"Scotch" Ranunculus and Crown Imperials (*H. B.*).—We know nothing of Scotch Ranunculuses. There are two types of the Ranunculus, Turban and Persian, and possibly what is intended is one of these Scotch grown. The Crown Imperial is best buried to a depth of 6 inches or even more, because of the greater strength afforded the plant in case of wind, and experience also has proved that greater vigour is secured by the deeper planting of the bulbs. Moreover, as a permanent subject in the border it is safe from ordinary interference.

Phloxes diseased (*Amateur*).—If the whole of your plants are in the condition of the one sent, we can only suggest that you dig them up and burn them without delay, and, having treated the ground to a good dressing of soot and lime worked deeply into the soil, plant young and vigorous plants. If the position permits of the use of gas-lime, this will probably be the best thing; but in using this the ground had better remain idle for a few weeks. It is the soil at fault. We do not advise your planting again on the same spot, but that a new site should be selected. In replanting you had better secure plants from a distance.

Crocuses and Daffodils to flower early on a bank (*J. G. M.*).—It is rather difficult to get the three to bloom together and to have the leaves ready for removal very early. The best Crocus for your purpose is Golden Yellow, and to associate with this you will find Margot, which is a pretty porcelain blue, the best, as it flowers before the others. Some would use C. Imperati, one of the species, associated with C. sulphureus, both of these flowering before aureus and Margot. The former is deep lilac and sulphureus is pale yellow. C. aureus and C. Imperati would be better; but you cannot well have Narcissi along with these, unless you use C. minimus, which is too expensive for such large planting. You might employ the dwarf Narcissus nanus. W. P. Milner, pale yellow and dwarf, is a good Narcissus, but Henry Irving is finer and almost as early as nanus and W. P. Milner. N. princeps, sulphur and yellow, is also very early.

Lilies diseased (*Miss L. B.*).—The Lilies are attacked by the Lily disease, due to Botrytis cinerea, for which no real cure is known. The diseased stems should be removed as soon as possible and destroyed by fire, and the old soil should be removed and replaced by good loam, which would probably be better if it had been stacked with powdered lime and had some flowers of sulphur dusted in it.

TREES AND SHRUBS.

Flowers of Clematis Viticella turning green (*Mrs. Hallan*).—The flowers of Clematis Viticella, especially the light-coloured forms, frequently act in the way that yours have done. The majority of Clematises have no petals, the calyx being coloured and petal-like. The fact of the flowers turning green is simply a return of the calyx to the normal green colour. The curious thing is that a plant may produce green or partly green flowers one year and coloured ones the next, or one or the other condition may continue for several years in succession. You cannot do anything to induce the flowers to regain their ordinary colour or to stop the plant from producing green flowers another year. Give as much light as possible about the branches and remove the plants that are crowding it.

Shrubs for a sunless wall (*Alfred Veal*).—The three best evergreens for the purpose you name are Ivy, Cratægus Pyracantha and Camellia japonica. The following deciduous shrubs may also be used: Hydrangea altissima, Ampelopsis Veitchii, Jasminum nudiflorum and Clematis Jackmani. Several plants of C. Jackmani varieties may be used to give colour during late summer and autumn. Any kinds of hardy Ferns will do to plant at the foot of the wall, particularly the stronger-growing ones, such as the Male Fern, Shield Fern, Royal Fern, Hart's-tongue, &c. Bulbs such as Crocuses, Snowdrops, Narcissi, Tulips and Hyacinths will thrive in your beds, as also will ordinary summer bedding plants, such as Geraniums, Fuchsias, Calceolarias and Begonias. Herbaceous plants will also grow in the position.

Lime branches damaged (*Mrs. von Hartmanne*).—The specimen of Lime branch you send appears to have had the leaves burnt by the sun. Fungoid diseases sometimes affect leaves in a similar manner, but no trace of fungus can be found on the specimen sent. It is impossible to account for the condition, but trees are sometimes affected in that way while others escape.

THE GREENHOUSE.

Annuals to flower from Christmas to March (*A. Johnson*).—There are not many annuals that can be sown now to flower in the greenhouse at the time stated, but the following would, we think, meet your requirements: Bartonia aurea, Clarkias, Godetias, annual Chrysanthemums, Salpiglossis, Schizanthus and Sweet Peas. The Polyanthus, double Arabis and Wallflowers might be boxed up, and if allowed a free circulation of air should develop their flowers under glass. For such things a minimum temperature of 40° to 45° should be allowed, rising, of course, during the day. A free circulation of air must be ensured whenever possible.

Heating a greenhouse (*Cestrian*).—Such a small greenhouse as that referred to by you might be heated by an oil-stove or lamp, of which there are many good patterns on the market. Of course, it is very essential that the stove or lamp should be kept perfectly clean and be regularly trimmed, while it is also of equal importance to use only the best oil, as that of an inferior quality gives off smoke and smell.

Treatment of Begonias (*W. G. Watson*).—You can do nothing with your Begonias as late in the season as this, but in the spring, as soon as the breaks are visible and you can detect those with single shoots, these may be removed in order to encourage the formation of others. At the same time, we should not advise you to serve all in this way, as naturally the flowering season will be retarded by this treatment.

Orchid leaves blotched (*C. C. S.*).—The blotches on the enclosed leaves of Anguloa are caused by a low temperature and an excess of moisture. Removal to a more buoyant atmosphere, taking care that the plants are well shaded, will do more than any application to check the trouble. Anguloa Clowesii, though a native of Colombia, needs a little more heat than the cool-house Odontoglossums from the same country, these last growing in higher latitudes.

Treatment of the Sensitive Plant (*E. M. M.*). The Sensitive Plant is a native of the tropics, and for its successful culture requires a warm structure. The temperature of a stove, or at least that of an intermediate house, is necessary to its well-doing. We should advise you to keep yours altogether indoors, and bear in mind that it is a plant which does not like direct sunshine. The Arum Lily referred to by you is a native of Cape Colony, a very much cooler district than that in which the Sensitive Plant grows wild.

FRUIT GARDEN.

Grapes not colouring properly in a heated vinery (*A Subscriber*).—The causes of Grapes not colouring properly are numerous, even when the vinery is heated as in your case. It is, therefore, difficult for us to say which of these courses may be answerable in your case without some more definite information as to the condition under which your Vines are growing. Much depends on the variety. Some take on colour much earlier than others. It may be that the soil of your border is partially exhausted of manure, especially bone and lime, and that in consequence the roots are unable to properly support and finish the crop. The most frequent cause of all, however, is overcropping. If you will let us know the variety of your Grapes, the length of your Vine rods, and the number and approximate weight of bunches carried by each rod, and also whether the Vines are in robust health or not, we shall be in a better position to help you.

Black Alicante Grape discoloured (*W. A. B.*).—Your Grapes are affected by "scald." It bears this name because the injured berries appear as if scalded or parboiled. Some varieties are more subject to attack from it than others, and among them is Black Alicante. It always makes its appearance about the time the Grapes have nearly finished stoning and are about to begin to colour. It is caused by hot gleams of sunshine striking on the foliage and berries early in the morning before there is sufficient air on the vinery and while they are damp from condensed moisture of the night. The remedy is to apply more air day and night to the Vines while they are at this stage of their growth, and should there be a prolonged spell of cold, wet weather at this time, the hot-water pipes should have a little warmth in them at night. This makes a wonderful difference to the buoyancy and free circulation of air in the vinery. It also prevents the condensation of moisture on the foliage and berries.

MISCELLANEOUS.

Soil for inspection (*J. W. Young*).—The soil is very deficient in lime, which should be added in the form of chalk at the rate of half a bushel to the square rod in the autumn or spring.

Hellebore powder for aphis (*E. F.*).—Hellebore powder will have no effect upon green fly. Soft soap and quassia or one of the nicotine washes should be sprayed on the bushes as a remedy against these.

Lawn infested with weeds (*Newcastle*).—Your lawn is infested with the common self-heal (Prunella vulgaris). Pull as much of it out as you can and dress the lawn with Lawn Sand, which may be obtained with directions for use from most of the principal seedmen in the country. Lawn Sand certainly does good. It sometimes turns the grass brown for a week or two, but it quickly recovers. A good dressing of soil would do the grass good if applied in the autumn.

How to break up meadow land (*Yorkshire Lad*).—You may first remove the turf, but it ought to be broken up afterwards and buried under the top spit of soil. Yes, trench the ground, add manure, and leave the surface soil in a lumpy state during the winter months. Autumn is the best time to do the trenching. You may scatter dust-dry lime on the grass, before any digging is done, at the rate of one peck per square rod of ground. As you can only work on the land three days in each week, half an acre would be quite as much as you could attend to properly for the cultivation of vegetables.

Book on gardening in Tokio (*M.*).—As far as we are aware, there is no book published in English which deals with gardening in Japan exactly in the way you seem to suggest. There is an excellent book, with some very helpful pictures, by Miss Du Cane, entitled "The Flowers and Gardens of Japan." It is published by A. and C. Black, price 20s. There is also a larger work, "Landscape Gardening in Japan," by Conder; but we think that possibly the first of these will be more what you want, and if it is not of very great practical utility for your particular needs, it may be very suggestive, inasmuch as it may lead you to consider whether you would go in for a garden such as we have in England or whether you would attempt to form one in the conventional style of the Japanese themselves.

Names of fruit.—*G. Rea.*—Striped Apple, Beauty of Bath; green Apple, Bramley's Seedling; Pear, Old Windsor.——*J. H. Powlesland.*—Pear Marguerite Marillat.——*J. Amos.*—Large Apple, Cat's Head; small, Brandy Apple.——*H. L.*—The Pear with dull red flesh is Durondeau; 3, Williams's Bon Chrétien; the other Pear was rotten. Apples: 1, Baxter's Seedling; 2, Schoolmaster; 3, Frogmore Prolific; 4, Sugarloaf.——*S. S.*—Pear Glou Morçeau.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

OUR ROSE NUMBER.

Next week we shall publish a number largely devoted to the Rose. A coloured plate will be given of the Hybrid Tea Rose Marquise de Sinety, and a feature will be a supplement containing the portraits of the leading hybridists of the British Isles, including those of the late Lord Penzance and Henry Bennett. One object of this supplement is to emphasise the beautiful work, not appreciated at its full worth, that has been accomplished by the Rose hybridists of these isles, and as complete a list as possible will be given of the Roses raised in this country. We think this list will surprise those who regard the raisers in other lands as the only earnest workers in this important phase of horticultural development; but in writing this we are not forgetful of the work, too, of foreign raisers, who have given us flowers that are in every garden worthy of the name. Besides these features there will be illustrations of Rose Dorothy Perkins in Mr. T. W. Lawson's garden in America, a rustic bridge smothered with Roses in an old-fashioned garden, the Himalayan Rosa Brunonis in Surrey, and the weekly illustrations for beginners. In this number an article with diagrams on the propagation of the Jasmine will appear. The Rev. J. H. Pemberton, one of the most successful amateur exhibitors, will help the beginner in the first steps; and there will also be articles on Roses for Decoration, by Mrs. Williamson; Seasonable Work in the Rose Garden; Old Garden Roses, by Mrs. Davidson; New Roses, by Mr. H. E. Molyneux; Marquise de Sinety Rose, by Mr. W. Easlea; and the usual weekly features of The Garden. The front cover will be illustrated in colour, the Rose represented being the Hybrid Tea Warrior. We feel sure that this excellent number will interest immensely all who love the Rose.

THE TELEMLY SWEET PEAS.

NOW is the time to sow the true winter-flowering Sweet Peas from Algiers. We have grown them two seasons and consider them indispensable. They are easily grown and flower almost as profusely in a cool house from Christmas onwards as our Sweet Peas in summer. I would recommend all those who have not seen them to give them a trial; once grown, I am sure they would find them a great acquisition. Coming in as the Chrysanthemums are going over, they fill a gap and make a welcome change either for cutting or for conservatory decoration. There is a wonderful range of colour among them, too, red, red and white, violet, pale primrose, pink, lavender pink, purple, lavender and the following new colours this season, blue, white, cerise and mauve.

The Rev. Edwyn Arkwright, who introduced them to this country, informed me two years ago that he was induced to do so by friends, as they were such a success in Algiers. He also kindly tells me that all the proceeds are devoted to the funds of the English Cottage Hospital at Algiers, so those who purchase will know that they are helping a good cause. As this is now my third season of growing them, it may be a help to those who have not tried them if I give a few details of my success in their culture. Sow now in 5-inch pots, six seeds in a pot, in a compost composed of three parts loam, one part leaf-mould and sand, with a dash of bone-meal and a sprinkle of soot; the latter helps to keep the haulm a good colour, as during the long dark days of winter they are inclined to become pale. Stand on a shelf in a cool greenhouse near the glass, or in a cold frame until the frosts come. When they are 12 inches high pot into 7-inch pots, and when 2 feet high into 10-inch pots, using the compost coarser each time. Always keep them as near the glass as possible, for if a long way from the light they are sure to become drawn and weakly, and the consequence will be they will flower indifferently and you will be disappointed after all your labour. I use Bamboo stakes a foot high to start with, gradually increasing their height to 5 feet, always securing the growths so that they do not double over. One stake in the centre of the pot and four others round make a good clump when fully covered with growth and flower, and when stood a yard apart, as I do in spring through a range of fruit-houses, along the side of the path, one can almost fancy themselves walking in the open garden in summer admiring the Sweet Peas. I consider they have a great future before them, and to those who can do so I would advise them to have a Sweet Pea house this winter, try the Télemly, and I am sure they will be delighted with them. W. Wallace.

The Gardens, Wrotham Hill Park, Wrotham, Kent.

[This is a most interesting race of Sweet Peas, and the notes from our contributor describe their beauty and cultivation so explicitly that one may hope for this fragrant flower a greater popularity than it enjoys at present. Sweet Peas have become amazingly popular of recent years, and it is a flower that one never tires of; its freshness of colour and sweet scent are as welcome as those of the Rose itself. To have Sweet Peas at Christmas is to bring the summer garden into the winter itself. Ed.]

NOTES OF THE WEEK.

FORTHCOMING EVENT.

October 12.—Royal Horticultural Society—Meeting of Commitees, 12 noon. Horticultural Club, H. Inigo Triggs, F.R.I.B.A., on "Italian Gardens," with lantern slides.

Funeral of the late Mr. Peter Barr.—The funeral of the late Mr. Peter Barr in the Islington Cemetery, East Finchley, on Tuesday in last week was marked by the utmost simplicity, according to his wishes, practically only the family being present, with a few personal friends. The floral tributes were very beautiful, and that from the Hortus Masonic College was of Heather and Camellias. Mr. Barr's favourite flowers—apart from the Daffodil—Primroses and Lenten Roses were scattered in the grave as a silent witness to his love for homely garden favourites.

South - Eastern Agricultural College.—The South-Eastern Agricultural College, Wye, Kent, will begin the 1909-10 session on October 4. The full complement of students, 120, will be in residence, and it is satisfactory to record that all the places reserved for Kent and Surrey ratepayers will be filled. Three scholarships have been awarded by the Kent County Council, and two of these have been won by East Kent farmers' sons; in one case it is the third and in the other the second member of the family attending the college. The prizes and diplomas awarded during last session will be distributed on Saturday, October 9, at 2 p.m., by the Principal of London University.

Bouquet Dahlias at Slough.—Several members of the National Dahlia Society's committee went to the Royal Nurseries, Slough, on September 22, on the invitation of Mr. Charles Turner, to inspect his extensive collection of Bouquet or Pompon Dahlias there grown under the usual conditions this season. It was the desire of the Dahlia Society that other growers or raisers of these Dahlias should send of their varieties to Slough last spring, that they might be grown for trial as garden decorative plants with Mr. Turner's. That desire, however, was not realised; hence the varieties grown, seventy-five in number, were entirely of Mr. Turner's own stock, yet, happily, seemed to include all the best varieties in commerce. Generally the plants were all robust, some especially so, perhaps more than usual, having regard to the moist season that has prevailed. In any case, all were grown on precisely the same lines, and where any special merits were seen it is but fair to assume those merits would mark the varieties under any form of treatment. Generally the number of plants of each variety seen ranged from six to twelve, hence the test related not to one plant simply, but to several. Mr. Turner had most thoughtfully provided the inspecting body, thirteen in number, with cards giving the names of each variety and spaces for marks and notes. Primary consideration was given to garden beauty, that being found in good striking colours, flowers of excellent quality and well borne above the leafage on erect stems. Out of the total number, eighteen received the maximum number of three marks, while seventeen were so far good as to secure two marks. We give the names of the best eighteen only, and can guarantee that all are, for the purpose named, specially good and effective: Daisy, amber, shaded orange; Darkest of All, deep maroon; Falcon, orange yellow; Ideal, pure yellow; Iris, amber and fawn, shaded salmon; Isabel, orange scarlet; Mars, bright scarlet; Montague Wootton, white, edged lake; Nerissa, soft rose; Portia, deep mauve; Romulus, crimson lake; Silvia, pale ground, edged rose; Tommy Keith, crimson, tipped white; Vara, yellow; Virginale, pure white; Whisper, clear yellow, edged red; White Aster, pure white; and Zerlina, crimson maroon. Of these six secured double marks, receiving also three each as exhibition flowers. These were Tommy Keith, Nerissa, Ideal, Montague Wootton, Falcon and Daisy. Others getting the maximum of marks only as exhibition flowers were Adela, Nellie Bromhead, Hecla, Cyril, Clarence, Douglas, Edith Bryant and Adelaide. Cactus Dahlias generally were disappointing as garden flowers. Some of the Pæony-flowered varieties are showy, but rather ill-formed and coarse in appearance. The very best garden variety among the large show section is Edward Mawley, deep crimson, which is really a superb garden plant, the flowers being borne on tall stout stems most conspicuously.

Brussels Exhibition, 1910.—An International Horticultural Congress is announced, in connexion with the above exhibition, from April 30 and May 1, 2 and 3 next. Horticulturists and societies of all nations are invited to take part by the committee organising the Congress. This committee consists of many of the most eminent Belgian horticulturists, besides various Government officials. Sub-committees are formed for dealing with the numerous subjects of interest that are to be submitted for consideration, and they are grouped into seven principal sections. They are as follows: Floriculture, Fruit Tree Culture, Market Garden Culture, Science and Educational, Horticultural Economy, Horticultural Mechanics and Works, Special Processes. Anyone interested can obtain the programme on application to the Secretary, International Horticultural Congress, 28 Rue Ste. Catherine, Brussels.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Colour nomenclature.—For many years the Royal Horticultural Society has been confronted with the difficulty of describing exactly the colour of any particular flower in terms which shall be distinctly and definitely intelligible in New York, Paris, Berlin, Quebec, &c., as in London. It is a difficulty shared by all who have, in any way or at any time, to represent colour in words. We determined, therefore, to endeavour to establish an International code by which anyone, anywhere, could convey to anyone else at a distance of time or place exactly and precisely the colour and shade he is speaking of. With this end in view we searched for a good colour chart, and have been successful in finding an excellent one containing 360 colours between white and black with the name of each in French, German, English, Spanish and Italian, together with four shades of each of the 360 colours, so that anyone wishing to describe to a friend at Calcutta the exact colour and shade of a flower or a silk or a painting need only refer to the colour chart number, quoting if for apricot, *e.g.*, page 53, shade 3; or if for rosy pink, page 118, shade 4; and so on. The cost of production of so beautifully printed and so large a chart was, of course, very heavy, and it was issued at one guinea net; but our society, by adopting it as an International standard and purchasing a very large number of copies from the publisher, is able to supply it to our Fellows and others at 14s. 6d., or if by post 15s. My excuse for asking for space in your valuable journal to make this widely known is the manifest utility which would accrue to everyone all the world over if this chart were adopted universally as a standard of colour nomenclature, not only (as it will be) for flowers, but also for all trade and commercial purposes which relate in any way to colour. How very vague, for example, are most people's ideas of the distinction between purple, crimson and mauve, and how often is the word carmine used as an easy method of solving the difficulty without conveying any definite notion as to what colour exactly is meant. It would make it quite easy for mercers and drapers to match any goods for customers at a distance; in fact, if once we could establish this chart as an International colour reference, its subsequent use would develop in all directions. I need hardly say that our society has no pecuniary interest in the matter whatever.—W. Wilks, *Secretary*.

A Mulberry cutting.—As Mulberries are usually very slow-growing trees, you may, perhaps, be interested to know that a cutting which we took of a really old tree last autumn (on November 20, 1908) has struck well, made new growth recently and had five fruits. Two have disappeared, but three are still growing and even colouring. The little bush is 14 inches high and 50 inches in circumference, and at present grows near the shelter of a western wall. A friend about a mile away has a similar experience with a quite young and apparently healthy tree two years old. Would you recommend an autumn dressing of crushed bones as well as lime rubble?—William Phear, *Brockhurst, Exmouth*. P.S.—Since writing this all the fruits have dropped, but the plant is strong and healthy.—W. P. [Yes; the manure will be very helpful.—Ed.]

Notospartium Carmichaeliæ.—You would like, I thought, to know that this beautiful New Zealand Broom is rarely seen in gardens. Here we have a plant 4 feet to 5 feet high, and in June is a mass of pink. This season it has flowered remarkably well, the shoots being borne down with the quantity of bloom. Its habit is somewhat similar to that of Spartium junceum, the wood not quite so large, perhaps, but round and drooping, which adds to the effect. The flowers are small and in little bunches all along the shoot. Here it is quite hardy and does not appear to mind either position or soil; in fact, the place where it is growing is exposed to a north-west draught, and very keen at times, but still it does well. It is one of the most beautiful of summer-flowering shrubs and ought to be grown more than it is. It appears to be rather a shy seed-bearer, and very few pods are swelling considering the quantity of flowers borne.—E. C. Pooley, *Gnaton Gardens, Plymouth*.

Growing Peaches in a small greenhouse.—In The Garden of September 11, page 444, I read an article on this subject in reply to a correspondent in North Lancashire. There it is stated "you would be well advised to get the nurseryman who supplies the trees to have them properly pruned root and branch ready for planting." My advice is to plant the trees called strong maidens, and on no account to prune any branches off them, unless where broken or where bark may be injured, until they have had time to take root and begin to swell the buds. The weak shoots may be then cut out, but the strong ones should be left entire, except such as are badly placed for training; but by properly examining the shape of the tree at planting-time there may not be many of these. The trees grow and produce splendid crops, and keep free from disease with any fair treatment. I have planted them as described, and have always been most successful. There is a late variety which I have found very profitable, that is, Sea Eagle. It is a splendid, large, well-flavoured fruit, and bears well; it is not mentioned in the article.—A. H. T. de Montmorency, F.R.H.S., *Carrickmines*.

Abutilon vexillarium.—This handsome evergreen species is, readers might like to know, quite hardy here. It is growing against a wall, and is in flower quite six months of the year, sometimes longer. Its long, slender shoots bear pendulous flowers, are very effective, and attain a height of 6 feet to 8 feet. The flowers are very curious and always attract attention, having crimson sepals, yellow petals, and dark brown stamens hanging out like a little brush. The variegated form is quite as hardy and perhaps more effective, having yellow markings. Both varieties grow very quickly, and often require cutting back to keep them in

their places. Solanum crispum is another plant that deserves to be grown more than it is. The flowers are in bunches, and are lavender with yellow centres. It is very effective when in bloom, often growing 10 feet high, with arching shoots. It is quite at home in a stiff loam, and is hardy here, standing in rather an exposed position.—E. C. Pooley, *Grafton Gardens, Plymouth.*

The late Peter Barr.—Peter Barr is dead! And a remarkable and striking personality, one of the best-known horticulturists of his time, has passed away. To the great majority of the rising generation Mr. Barr will be best known as the "Daffodil King" and pioneer-in-chief of the modern race of Daffodils whose coming has beautified the gardens of the civilised world, transformed often large and unremunerative vegetable-growing areas into profitable flower farms, and both directly and indirectly has provided work for many thousands of hands by reason of an industry which, if not entirely new at the moment, is increasing in area each year. To have lived to see such a day, to realise the great influx of seedling Daffodils appearing from time to time, and to be able to compare the present with the past in these matters as only Peter Barr could have done, is not given to many men; while to-day to set about their classification would prove a task far more formidable and embarrassing than that of Peter Barr's some thirty-five years ago, when he first began to grapple with that early race of hybrids, and from out of which the present races of these flowers have been evolved. As one who knew him in these early days, and for years saw much of his ceaseless energy, I can honestly say that I never knew a greater glutton for work, and long before the talk of intensive cultivation in England Peter Barr was himself an intensive cultivator and worker of a very original and pronounced type. Long before the coming of the early hybrid Daffodils, however, Mr. Barr had devoted much time to Lenten Roses, Lilliums, Irises, Paonies and the like; while it may be news to some that he had so great a liking for choice alpine plants that at one time he delighted to have them near him at home, and indeed constructed a sort of window-sill rock garden at his private house at Tooting, where he grew many choice and interesting kinds to perfection. To have attempted and successfully carried out this idea in days long before alpine plants and rock gardens had become the adjuncts of gardens as they appear to be to-day evidences two things—the original ideas of the man and his love for plants. Tulips naturally largely engaged his attention, and his interest in these alone was like his knowledge of them—profound. Choice and rare bulbs and tuberous-rooted plants always delighted him, and his catalogues were full of them, albeit occasionally one drew a long gasp at the price. One in particular, Chionodoxa Luciliæ, before its reintroduction by Mr. Maw, occurs to me at the moment; its price was 7s. 6d. per bulb, the tiny morsel, little larger than a good-sized culinary Pea, coming to hand in tissue paper and cotton-wool, enclosed in a pill-box. At no other establishment, however, than Barr's could the plant then have been obtained. The life-work of Peter Barr—and the fact should be remembered with thankfulness by those who garden chiefly out of doors—has been devoted to hardy plants, not in words but in deeds, and the benefit of his strenuous and untiring labours is felt to-day in all the gardens of the world where hardy plants can be grown.—E. H. Jenkins, *Hampton Hill.*

THE ROSE GARDEN.

SOME UNCOMMON ROSES.

IN these days of Hybrid Teas and ramblers other tribes are in danger of being overlooked. This may not be of much concern to the owner of the villa garden, but to those individuals who would possess a real rosary there are some beautiful old sorts that should not be lost sight of. One of special beauty which I think is scarcely known is

Clynophylla duplex. It is a charming Rose, with a bloom as dainty as a Tea-scented variety and of a delicate blush colour. The foliage is particularly glossy and handsome, and the plant grows quite freely on the Briar. Some group this variety with R. lucida, but to me it appears to belong more to R. bracteata or the Macartney Rose. The double form of R. lucida is also quaintly pretty. It is generally known as

Rose Button. The bud is very charming, of perfect shape and bright rose pink, with deeper centre. This Rose is very little known, not so much as it deserves to be. It will grow into quite a shrub if raised from cuttings, as it should be. Then there is the white Macartney Rose

Alba simplex. When in late summer and autumn it produces numbers of its large white blooms, it makes a beautiful show against a low wall. The rich array of golden anthers is an important feature, but so also is the pretty foliage, so tiny and so bright and almost evergreen. It is a Rose of Chinese origin, having been brought over by Lord Macartney at the end of the eighteenth century. Another pretty Rose of this group is

Maria Leonida, with semi-double flowers of a white colour, with a rosy centre suffused with cream. The flowers are fairly large, and it is a most charming Rose when trained against a low south wall, but should not be grown away from a wall or fence, as it is not quite hardy, unless, perhaps, in the South of England. I have been in scores of gardens that made a great feature of Roses, but have never yet found the

Crested Moss, cristata or Crested Provence as it is called. Its flowers, not unlike the common Cabbage Rose, are beautifully enveloped in a crest-like growth resembling roughish Moss, the crest even appearing at times in the leaves. It is a remarkable Rose, and was first found growing on the walls of a convent near Berne in 1827.

Rosa microphylla is a most peculiar Rose, with very quaint buds resembling a Spanish Chestnut before they expand, owing to the prickly, broad sepals of the calyx. The colour of the bloom is rosy carmine and is very pretty as it unfolds its buds. Apparently a useful species to hybridise, for I saw some very distinct crosses raised by Mr. Smith of Newry planted out in the Rose borders at Kew Gardens. A variety, Ma Surprise, has rosy white flowers and the most beautiful foliage imaginable. The foliage of R. microphylla is also very pretty, sometimes as many as fifteen leaflets ranging on the sides of the petiole. I once saw a grand specimen of Ma Surprise growing in the Jardin d'Acclimatation, Paris, and its beautiful amber-coloured shoots were really most picturesque. What may be looked upon as one of the first of the once popular Hybrid Perpetual group is

Rose du Roi, a variety of perpetual-flowering habit with foliage and wood resembling the old Gallica Roses. It is deliciously sweet and, I believe, largely grown in India for distilling purposes. The colour is crimson, very bright and lovely in the bud.

Hebe's Lip is a lovely single Rose with cream-coloured blooms edged with red. All who admire single Roses should possess this Briar, which, apart from its blooms, has claims upon us for fragrant foliage.

Stanwell Perpetual Scotch Rose is a real gem of the most dainty blush colouring, with large, flattish blooms. It makes a grand isolated bush, and would soon form a nice, fairly low hedge. The perpetual-flowering habit is valuable, for though not very profuse, it is a Rose that is rarely without an open flower all through the season. My last old favourite to notice is

Jaune Desprez, or, as the catalogues used to put it, Desprez à fleur Jaune. How rarely do we see this beautiful old Rose with its large clusters of buff-coloured flowers that were so very fragrant! It is a Rose that is almost evergreen, and grows very luxuriantly when planted against a south or west wall. P.

THE NEW GENTIAN, GENTIANA VEITCHIORUM. (See page 483.)

A FRAGRANT ROSE.

THERE are few good and fragrant red Roses that look well on a wall. How often one sees Reine Marie Henriette—a typically scentless Rose—though there is another and even finer Rose, La France de 1889, which shows to the greatest advantage on a wall, and moreover will give splendid and fragrant blooms quite late in November. The other day I had the pleasure of seeing this fine old Rose in the greatest beauty, covering a high wall facing nearly east, and felt more regret than ever at seeing it so rarely. I really think its terrible name must deter folk from ordering it. There are so few red Roses that make wall-climbers that it is worth a place in any garden of fragrant Roses.

E. H. Woodall, in *Country Life.*

NOTES ON NEWER ROSES.—IV.

Hybrid Teas.

(Continued from page 466.)

Celia (William Paul and Son of Waltham Cross, 1906).—This Rose is a good colour, bright, clear satin pink; very free flowering and should make a good garden and decorative variety; good habit of growth, similar to Caroline Testout, to which no doubt it is related.

Countess of Gosford (S. M'Gredy and Son, Portadown, Ireland, 1906).—Now that we are getting some age into our plants, this Rose is improving. Its fault was that it had so few petals, but this season it has frequently had quite a "lot of stuff" in it, to use a not very elegant but expressive term in use among exhibitors. It is undeniably a very beautiful Rose; at its best there are not many Roses so graceful, the turn of the petal being well-nigh perfect. Its colour is a delightful blending of rose, salmon and pink, with an under colour of yellow that cannot be accurately described. Its refinement is marked, and those who prefer beauty to size should grow this Rose. It is free, has a good habit of growth, and repays high culture. Gold medal, National Rose Society.

Crown Princess Cecilie (J. C. Schmidt, 1907).—A small but pretty flower, pale pink, very free, but I do not think it will be wanted. A flower of its colour must be very striking and exceptionally good if it is to replace those we have already.

Crimson Crown (Alex. Dickson and Sons, 1905). A good bedding Rose of very fine crimson colour; very free, the flowers coming in clusters.

Cynthia (William Paul and Son of Waltham Cross, 1909).—I believe this is coming into commerce this season. It is a very good K. A. Victoria seedling with plenty of petals, and should find its way on to the exhibition bench in time. I have not grown it, but as seen growing in the nurseries of the raisers it is a promising Rose, its habit of growth being better than the majority of the K. A. Victoria group.

David Harum (E. G. Hill and Co., 1904).—I think we can do without this Rose. I have grown it for three seasons and have not had a really first-class flower.

Deuil de L'Compagnon (Guillot, 1907).—Very dark purple; those who like the shade should grow it, but it does not appeal to me; a good-sized flower of fair form.

Dr. O'Donel Browne (Alex. Dickson and Sons, 1908).—A very Hybrid Perpetual-like Rose; Dupuy Jamain improved might describe it; colour carmine rose, good round petal; its strongest feature is its scent; will no doubt come in very useful on the exhibition table, but this season has not suited it in my garden. As seen in the nurseries of the raisers for several years past it has been distinctly promising. It was awarded a gold medal at the 1908 autumn show of the National Rose Society.

Dora (William Paul and Son, 1906).—Another Hybrid Perpetual-like Hybrid Tea. Both of these last-mentioned Roses might have been called Hybrid Perpetuals if appearances go for anything; but Roses often are not what they seem, and both Roses we are assured are of Hybrid Tea parentage. Silvery blush in colour; a large, round flower that would have delighted the exhibitor of the eighties, but does not appeal so much to present-day ideas, although I personally think it would be a great mistake if all Roses were to be of exactly the same type; with high-pointed centres. This Rose should make a fine pot plant, as the flowers last a long while.

Dorothy (Hugh Dickson and Sons, Belfast, 1905).—I believe another Caroline Testout seedling; colour pale flesh; a useful garden Rose with all the characteristics of its parent. What a gradation of colour could now be obtained using Caroline Testout seedlings only, from the almost white of Admiral Dewey through all the shades of flesh, blush pink, pale pink, pink, bright pink, carmine, almost into the reds. It would, at any rate, be an interesting bed, if not a beautiful one.

Dorothy Page-Roberts (Alex. Dickson and Sons, 1907).—This is a grand garden Rose for those who like big but few petals rather than many of them. For table decoration few Roses are more charming. My flowers this year, possibly owing to the continued rain, have not had so much of the coppery tint in them that was so marked a feature of the flowers last year. Excess of moisture and lack of sun have deepened the colour of all Roses to a marked degree this year; sometimes it is a gain, but in this particular instance it is not so. A very beautiful Rose that I can strongly recommend, but of no use to the exhibitor. A gold medal Rose of the National Rose Society.

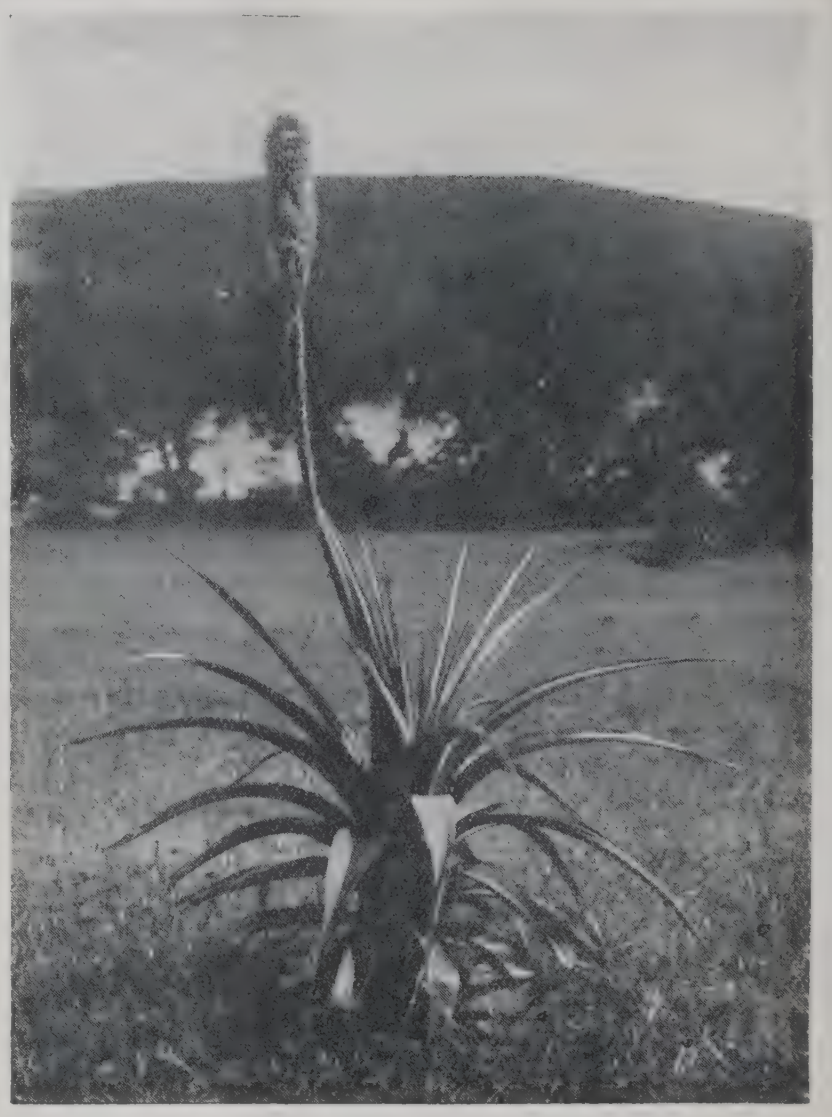
Ecarlate (Boytard, 1907).—This stands out solely by reason of its colour. The flower is on the small side, with not many petals. The finest colour of any of the scarlet Roses; should make a fine bedder, especially if effect is required from a distance. Very free flowering and not a vigorous grower; apparently mildew-proof, the drawback to Marquise de Salisbury, which has suffered badly this year from this cause.

Elizabeth Barnes (Alex. Dickson and Sons, 1907).—Another fine-coloured Rose when you can get it, but the flowers reach a certain stage and then come a bad shape. As shown by the raisers, it is unique in its shade of deep copper salmon; possibly the season has had something to do with its bad behaviour. It is a Rose well worth taking a little trouble with, so I shall try again with Elizabeth Barnes.

Elaine (William Paul and Son, 1908).—This is, I think, a good Rose. It has been well exhibited by the raisers on many occasions, and has received the Royal Horticultural Society's award of merit. Similar in colour to White Maman Cochet, it reflexes its petals in the same pleasing manner, and with high culture should be good enough for the exhibitor.

Frau Alfred Mauthner (P. Lambert, 1907). It is early perhaps to condemn this Rose, as I have grown it for one season only; it is sweetly scented, of robust growth rather than vigorous; colour, silvery rose with a deeper centre. It is free enough for garden purposes, but I cannot say I am struck with it. We have so many good Roses now that inferior kinds are not wanted.

Purley. HERBERT E. MOLYNEUX.



KNIPHOFIA NORTHIÆ IN MR. GUMBLETON'S GARDEN.

OLEARIA NITIDA IN MR. GUMBLETON'S GARDEN.

IRISH NOTES.

MR. W. E. GUMBLETON'S GARDEN.

ABOUT a five miles' drive from Queenstown is the residence of Mr. W. E. Gumbleton, situated on one of the estuaries of Cork Harbour, known as the East Ferry. Belgrove enjoys an ideal climate, and has for a long time been known as the home of many rare plants. A grass garden near the house contains numerous small beds filled with the newer kinds of annuals and perennials; the boundaries are made by hedges of Rosa rugosa varieties and by a wall covered with choice plants. Here the owner commences by pointing out a fine specimen of Freylinia cestroides, said to be a good plant with terminal bunches of yellow flowers in such places as the Riviera, but the Irish climate will not induce it to flower, so its doom has been pronounced. Along the wall were the white-flowered Correa magnifica, Crossosoma californica and Bowkeria gerardiana; the latter is the Calceolaria Shrub of South Africa. Tricuspidaria lanceolata (10 feet high) had been flowering profusely, while the the white T. dependens and the new Senecio Hectori were growing strongly.

Near by was the beautiful Dendromecon rigidum, with its glaucous foliage and bright yellow Poppy-like flowers; a point strongly in its favour is that from springtime until late autumn it is rarely without a few flowers.

One of the rarest and most striking plants in flower at that time (July 6) was Olearia insignis, a native of New Zealand. Probably the specimen is one of the best in Britain growing in the open. It was 2 feet high and the same in width, and was flowering freely. This distinct Olearia has thick, leathery leaves 6 inches long by 4 inches broad. When young the stem and leaves are covered with a dense felt of white hairs, but as the leaves get older they lose this covering on the upper surface. The white Daisy-like flowers, which are shown in the illustration, are produced singly in the axils of the leaves and are 3 inches in diameter. The beautiful Mutisia decurrens was climbing and flowering through the branches of Fremontia californica; it is unfortunate that these two showy plants are so capricious, the former so hard to establish and the latter so ready to die when established.

In one of the garden beds a good branching plant of Salvia dichroa, 5 feet high, stood out prominently. This species, with large blue and white flowers, is one of the showiest of the genus when well grown. In another bed the new Lupinus polyphyllus roseus was also flowering well; though a distinct shade of colour, it does not suit everyone's taste. Dahlia odorata Bruanti and D. arborea were planted out and making good progress, while a bed of that glorious orange annual, Dimorphotheca aurantiaca, was beginning to make a display. Other rarities out of flower included a good clump of Anemone Fannini, Trollius ranunculoides and the yellow Pæonia Mlokosewitschii.

As one would expect, shrubs thrive wonderfully well at Belgrove; Mr. Gumbleton's name will be recalled to many people as being the first to flower Buddleia Colvillei in the year 1891. The plant is now about 20 feet high and was producing trusses of its beautiful pink flowers. On a wall was a fine plant of Feijoa sellowiana in flower. This half-hardy shrub is related to the Guava; it has bright, showy flowers; the petals are crimson on the inside and fawn coloured outside. The numerous prominent stamens are bright crimson, and the fruits when produced most highly perfumed and delicious. A remarkably good specimen of Daphniphyllum macropodum or glaucescens was 18 feet by 12 feet through, and Castanopsis chrysophylla was 10 feet high, producing a crop of prickly fruits. A tree of Juglans sieboldiana (ailantifolia) was also producing a few fruits on pendulous racemes bearing two to six Nuts each.

Along a terrace was a fine collection of the hybrids and species of Kniphofias, and here one came upon a plant in flower which is seldom seen in the open. It was a fine and telling mass of Beschorneria decosteriana, a native of Mexico belonging to the Amaryllidaceæ. The tallest of the six flower-stems was 10 feet high, springing from a basal rosette of lanceolate leaves. The inflorescence was a panicle, the main stem bearing large crimson bracts, in the axils of which appeared the lateral branches; the laterals bore clusters of flowers in twos and threes, and the flowers were pendulous, green, and reddish in colour.

The Gyneriums (now called Cortaderias) had formed grand masses; several good variegated forms were to be seen, such as C. Wesserlinghi and C. Stœnackeri. The finest of the Pampas Grasses, C. jubata, was represented by a good specimen; unfortunately, it is the least hardy of the genus, coming as it does from Chimborazo. Under glass were several interesting plants, such as the curious Parsonsia albiflora (Apocynaceæ) with leaves of two different shapes, also Hillebrandia sandwicensis, one of the few plants which is related to the Begonia; it differs botanically in having both petals and sepals. C. F. Ball.

THE FRUIT GARDEN.

FRUIT NOTES.

NOTES ON CORDONS.—Our French friends and neighbours have always been keenly alive to the beauty and utility of a well-trained fruit tree, and many of the forms which we now find so extremely valuable and so justifiably popular originated in France. Among them all, however, none has been of greater value to British growers than the cordon, which, correctly, of course, a single-stemmed plant, as the name clearly implies, has undergone certain changes and extensions until we now have double

A TRIPLE OR GRIDIRON CORDON PEAR DOYENNE DU COMICE.

and triple stemmed trees that are sometimes termed "pitchforks" and "gridirons" respectively, but are more often named multiple cordons.

For their special positions there can be no question as to the excellence of trees either with one, two or three stems, since all alike can be easily grown and will, under proper treatment, produce such fruits as cannot be excelled, and rarely equalled, by any other form of trained tree grown in our gardens. Can one wonder, then, at the immense appreciation in which cordons are held, or that the demand for information upon their correct management should be incessant? There are, doubtless, thousands of gardens in the country where it would be quite impossible to have any fruit trees were it not for the convenient cordon, which, given a stout fence or a wall 6 feet or more in height and good soil for the roots, will yield crops season after season with a regularity that is as pleasing as it is desirable.

For covering profitably our fences and walls we can have Apples, Pears, Plums, Gooseberries, and Red and White Currants in single-stemmed plants for the flat portions of the wall or in double or treble-stemmed form for narrow or wide buttresses, according to fancy or convenience, or, if it is preferred, all can be in multiple form; but, generally speaking, these latter plants demand rather more skill and care than those with one stem. An excellent example of a gridiron or triple-stemmed cordon is shown in the accompanying illustration. The photograph was taken a few weeks ago in the nurseries of Messrs. Stuart Low and Co., and the tree was carrying a splendid crop of fruits of that most excellent of dessert Pears, Doyenné du Comice. There is no reason whatever why equally satisfactory plants should not be found in all gardens, provided, of course, that there is the indispensable fence or wall for training.

It is proposed, in view of the importance of this form of tree to the amateur, to devote one or two columns of "Fruit Notes" exclusively to them, and it will, perhaps, be wise to commence with selections of varieties, as orders for trees should be placed forthwith, so that there shall be an absolute certainty of a share of the best instead of a share of the leavings, which may come to the man who does not think of coming to a decision until the end of the planting season. Let it be said at once that those who place their orders with any of the highly reputable firms who advertise in The Garden may, with perfect safety, leave the selection of the sorts entirely in their hands, since they will assuredly spare no efforts to give complete satisfaction, as they are jealous of their fair fame and would not knowingly do anything to tarnish it. The purchaser who decides upon this course should state plainly his requirements in regard to number of trees and varieties, and also give full information as to the situation of the garden and the aspect of the wall which it is proposed to clothe. It is, further, desirable to describe the soil, but this is not imperative, for the simple reason that the man who wants to succeed when everything else is favourable will not let himself be beaten because the soil does not happen to be ideal for fruit culture. If this is his only trouble, he will set upon the task of either importing a compost that is suitable with which to surround the roots, or he will do what is probably just as good in the long run—improve the natural medium of the garden; the latter will take a little longer and the trees may be a rather greater time coming into full crop, but the eventual results will be eminently satisfactory to everyone concerned. In my next notes I will give the selections. Fruit-grower.

POT VINES FOR TABLE DECORATION.

At the present time, when novelties are so much sought after and so keenly appreciated, it is not surprising that we sometimes read of elaborate banquets at which we are told that the fruit eaten at dessert was presented to the guests in a growing state on miniature trees. But however remarkable or difficult at first thought this may appear to many readers, in the case of miniature Vines it is really a very simple matter, which may easily be accomplished by anyone who has even a small cool vinery at his disposal.

There are several methods by which such plants may be produced, but I will confine myself to describing the method which I practise here, and which invariably gives satisfactory results. In a midseason vinery of large dimensions (the occupants of which are of considerable age) to sustain vigour we frequently run up new rods, so that at least one can be removed every two or three years. Having selected the rod of some years'

standing which is to be taken from the roof to make room for its younger brother, it is brought down parallel with, and about 2 feet from, the front lights, and about 3 feet 6 inches from the roof glass, the rod then being firmly tied to a staging, taking care to have the spurs on one side pointing in an upward direction. At pruning-time all shoots are pruned in excepting about six on the upper side of the rod; these are shortened back to about 18 inches in length, taking care that the top bud is a good one. Prior to the Vine breaking in the spring a sufficient number of 5-inch pots are selected, the holes at the bottom being slightly enlarged, so that the pieces of young wood retained pass readily through them, the pots eventually resting on the old spur. They are then filled with good loam, rather heavy in texture, which is made firm.

As active growth commences the soil in the pot is kept constantly moistened, when it soon becomes filled with roots. A neat stake must be placed in the centre of the pot, to which the miniature rod must be firmly tied. As the fruiting shoots develop they are also loosely looped to it. These must be pinched at two leaves beyond the bunch and the berries thinned in the usual way. I usually allow three bunches to each small Vine, which collectively weigh about 5lb. Of course, more than three shoots can be allowed to furnish the tree with plenty of foliage. These small Vines remain attached to the parent plant until the fruit is thoroughly ripened and they are required for use, when they may be cut off with a small saw outside the bottom of the pot.

The shoots may now be tied and pinched to make the Vines look as elegant as possible. The soil should have a thorough watering, afterwards covering it with moss, when the Vine will be ready to place on the dinner-table. We usually place these miniature Vines in a large silver bowl, a saucer with a little water in it being placed underneath the pot, which prevents the foliage suffering from the heat of the room.

The advantages of growing pot Vines for decoration in the manner described are at least of a twofold character, one being that of turning to good account a rod that otherwise would be thrown away, and the other is that the fruit is much better finished and of finer quality than when grown exclusively in a pot. By utilising about one-third of the spurs each year one rod would give a supply of these Vines for three seasons. The illustration is of a plant produced this season.

W. H. WILSON.

Moor Hall Gardens, Stourport.

A POT VINE READY FOR THE TABLE.

CHERRIES FOR ORCHARDS.

FOR this purpose we have to choose comparatively few sorts, and such as will be profitable during a long series of years, for the life of a standard Cherry tree may be a hundred years, except in the case of the Flemish and Kentish Reds, May Dukes, and like sorts. In planting a profitable Cherry orchard place trees of the larger growing varieties at 36 feet apart, and plant between each either a Flemish, Morello, or May Duke variety.

THE FLOWER GARDEN.

NOTES ON EARLY TULIPS.

PRINCE DE LIGNY is a tall and particularly graceful yellow Tulip for any position out of doors where soldier-like regularity is not requisite. It has the same beautiful vase-shaped flower that characterises some of the Cottage section, such as La Merveille and Picotee. In height, too, it more nearly approaches them than the majority of the early section generally do. As a rule, I do not care for variegated-leaved plants which have coloured flowers. Only the other day I was taken to see a small variegated-leaved Nasturtium with red flowers. It had the same effect on me that I imagine an organ badly out of tune would have on an organist. The exception proves the rule, and the sight of a beautiful combination of a very blue Forget-me-not, which I think must have been "dissitiflora," with some variegated-leaved Yellow Prince Tulips always comes to my mind whenever I see that variety in a list. What tended to impress me was the fact that the cost of that bed was far beyond my means, variegated Yellow Prince being then ever so many shillings a dozen, whereas now it may be bought for a few pence. Two very reliable Tulips for bedding are Dusart (red) and Mon Tresor (golden yellow). This latter variety is an even and regular grower, and valuable for positions where such adjuncts are necessary. The special characteristic that makes Dusart so valuable is the unchangeableness of its colouring. It is no "change coat." In early life and in its last days it has still the same deep, rich red colouring. Globe de Rigaut is a handsome, tall-growing, early variety for pots of the "broken" or "rectified" type of flower. Anyone who appreciates these old-fashioned favourites will like it. The ground colour is white, and it is flamed with pale violet. As it is an easily grown and reliable plant, I can confidently recommend it. Couleur Cardinal is a variety that always looks exceedingly handsome. If the deep, rich crimson of its petals, with their plum-shaded exterior, is of a deeper shade than His Eminence's robes, no Cardinal could bear himself with greater dignity. I recently learned something of its history. Dear old Mr. G. H. van Waveren bought it at an auction sale fifty-three years ago, and when he got it home he incurred the parental displeasure because of his rash investment. At first it must have appeared that the father was right and the son wrong, for it would not sell. To-day I expect his firm would be glad of as many as he could buy at a reasonable figure. Unfortunately, it increases a good deal slower than most Tulips do, and so the price never gets much lower than 1s. 6d. a dozen.

A change is pleasing in most things, and for those who wish to vary the stock varieties of early Tulips I would suggest the following as being departures from the usual types and colours: (1) La Remarquable, with long, pointed petals of a reddish maroon with a pink edge. (2) Potter, a flower of an exceptional shade of reddish purple. I do not think that there is anything like it among early Tulips. (3) Cerise Gris-de-lin, which is a beautiful combination of a sort of faded cherry red and ochre yellow. It is the unbroken form of Spœndonck. (4) Arms of Leiden, a robust, strong grower whose solid-looking petals are tipped with rose. Two favourite whites with me are Princess Helen (single) and White Murillo (double). This last is the beau ideal of what in my opinion a double Tulip should be. Those who happened to have read my Tulip notes last year will say I am taking coals to Newcastle when I once more write about Prince of Austria. It is a great Tulip. Its amphibious character (in so much as it can live and flourish just as well in pots as in the open ground), its splendid constitution and the delightful colour of its flowers mark it out as the *one* Tulip we should never omit from our bulb merchant's order. Scarlet Mammoth is a variety that is very seldom seen in catalogues. I have grown large beds of it for the past three years, and cannot understand why it seems to be so very little known. It has a dwarf habit, and in olden days would have been one of Ray's Medias or Middle Flowering Tulips.

One must have a strong eye to look at it for long. I have tried it for pot-work, but I can only say my efforts have been a dismal failure. I am glad to be able to say that my favourite pot variety, Jenny, is becoming more known. People who think or say that Tulips have no scent should buy half-a-dozen and try them. One of the things I look forward to each year is my pot of Jenny on the breakfast-table. I like to get a whiff of the sweet, clean perfume the first thing in a morning when I enter my dining-room. The plant does not grow very high, and has perfectly shaped flowers of a beautiful soft cherry red. JOSEPH JACOB.

GENTIANA VEITCHIORUM.

THIS is the corrected name of the new Chinese species of Gentiana which we referred to in our issue of September 11 (page 451) under the specific name of G. ornata, by which it was exhibited and received an award of merit on August 31. The reason of the change is that already there are two widely distinct species figured in the *Botanical Magazine*, and to which the specific name of ornata has been given; hence it has been decided by no less an authority than Mr. Botting Hemsley, with the full materials before him, that it would be unwise to attach the name ornata to a third species. The plant obviously has affinity with G. ornata, and to our former description we give Mr. Hemsley's description as published in the *Gardener's Chronicle* for September 11: "G. veitchiorum is a larger, more robust plant than G. ornata, with relatively broad obtuse leaves, larger flowers, with broader corolla-lobes and very broad, toothed folds between them. The flowers are of an intense blue with light longitudinal bands on the outside." As a Rose by any other name would be just as sweet, so will this lovely Gentian be just as beautiful under the new name as the old, while this new Gentian will assist to permanently commemorate one of the many phases of plant-collecting in which Messrs. Veitch have engaged.

THE PERGOLA AT MONTGREENAN HOUSE GARDENS, AYRSHIRE.

AT Montgreenan House, Ayrshire, the residence of Sir James Bell, Bart., there can be seen a splendid example of a pergola. The accompanying illustration is from a photograph taken when the flowers were in full bloom, and will give readers some idea of the beauty of this structure. The supports are made of wood and are covered with Roses and other climbers. The Roses used are Dorothy Perkins, Lady Gay, Minnehaha, Wedding Bells, Sweetheart, Hiawatha and similar varieties, and as all are rapid growers they soon cover a lot of space. Other hardy trailers are introduced here and there, such as Clematises, Loniceras and Aristolochias. These give variety and break up the rosy effect. The borders on either side are filled with herbaceous plants and are edged with Pinks along the front. These hang over on the grass walk running up the centre, and when in bloom present a pleasing sight. They are backed by lines of Lilium candidum, which are well shown in the illustration. In the centre of the walk can be seen an ancient Roman well-head. It contains a Water Lily, and is quite in harmony with its rustic surroundings. G. A. GRANT.

THE PERGOLA, WITH WHITE LILIES, AT MONTGREENAN HOUSE GARDENS, AYRSHIRE.

TREES AND SHRUBS.

TREES AND SHRUBS IN NEW ZEALAND.

SOME THAT WILL GROW IN THE BRITISH ISLES.

IN your issue of July 12 I see that Mr. C. F. Ball writes from Ireland about the native Kowhai (Sophora tetraptera), so I thought that perhaps you would like a few notes on some of our beautiful native shrubs and trees. The Sophora he speaks of is very much valued here on account of the hardness of its wood, and also for its lasting qualities when put in the ground, rather than for its flowers and foliage. There is another variety, S. t. grandiflora, which is much dwarfer, but gives a much finer display of bloom. The flowers are larger than the former, but the tree itself rarely attains a height of more than 12 feet or 14 feet. Clianthus puniceus is regarded by the Maoris as a variety of Kowhai, and to distinguish it from the Sophora they call it Kowhai N'gutu Kaka (the Parrot-beak Kowhai). Clianthus albus is a hybrid from the latter, I think. There are many tales told of the way the plant first got here. Some say that the natives brought it with them when they first came. The Maoris themselves say that a French ship was wrecked near Auckland and that the only thing that came ashore was a box of seed, which they broke open, and from it sprang C. puniceus. It was very much valued by them, and has been distributed all over both of the islands.

There are hundreds of flowers and shrubs here that I could tell you of which would, I am sure, grow very well in England. The native Veronicas are very beautiful and hardy. They range in size from 6 inches to 20 feet. The flowers on some of them are from 6 inches to 9 inches in length, and are from the very darkest purple to pure white in colour. The native Pepper Tree (Drimys axillaris) is very beautiful in a garden Horopito the natives call it. It makes excellent hedges, and has a lot of yellow green flowers, which are succeeded by small, bright crimson fruits, which alone makes it worth a place in any garden. There are also many varieties of the Ake Ake (Olearia), which make good hedges and can be cut as often as one likes. The Pohutukawa (Metrosideros lucida) or Christmas Tree is the most beautiful when in flower. It must be grown near the seashore to bring it to perfection.

We have about eight kinds of Clematis, which grow everywhere and are a mass of blossom in the early months of spring. The native Manuka, or Ti-tree, is a very beautiful shrub, and when in blossom is covered with white and pink flowers. In some parts it grows so thickly that special mowing-machines have been made to mow it down to burn it. From time to time I have seen pictures and articles in your paper on the New Zealand Flax (Phormium tenax), but you have no idea of the beauty of this plant in its own country. Up on the Waioru Plains about Christmas-time one can see acres and acres of this plant in flower. There are white, red, spotted and all shades of yellow growing side by side. Then the leaves are all shades of colour; some have yellow stripes down them, some black and so on. When the native bush is cut down, a plant called Tupurupuru (Solanum aviculare) springs up; it is covered with violet flowers, which are succeeded by green and red berries; the frost damages this plant.

Now, before I close, I must say how much I look forward to THE GARDEN every week and to the articles in it. I am an amateur gardener in a small way, and have about a quarter of an acre under cultivation, with a small piece of native bush in the background. I have about fifty Roses, of which I am proud. My Dahlias (Cactus) are thought a great deal of here, and I have won the local championship with them two years in succession. FRANK MASON.

Whakaronga, New Zealand.

GARDENING FOR BEGINNERS.

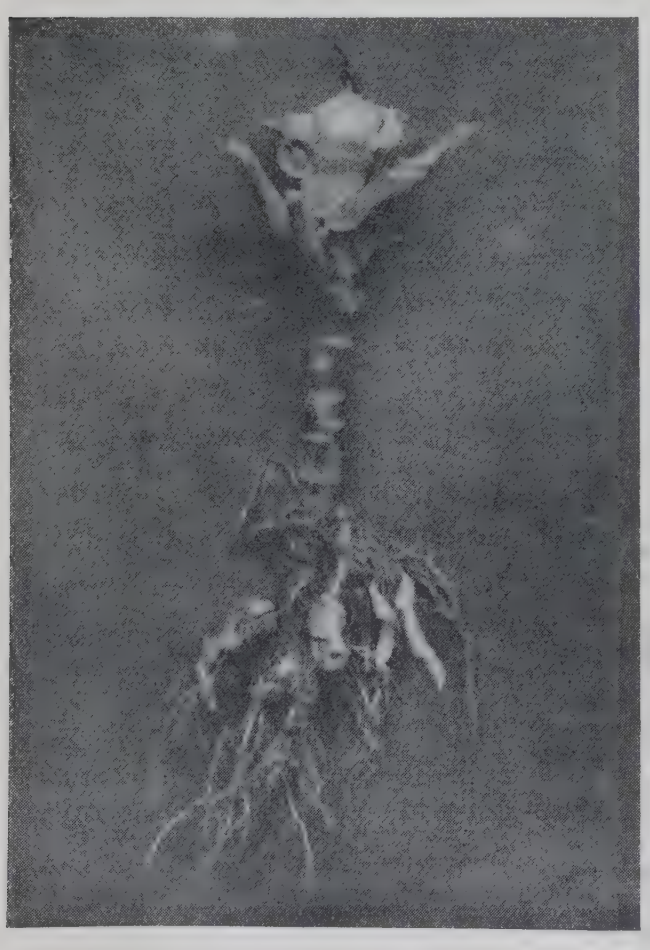
GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—During ordinary winters, when there are no very severe frosts, Violet plants in outside borders flower freely and afford a great deal of pleasure to the cultivator. The blossoms are small and much trampling down of soil is often necessitated when they are gathered. This continual trampling on the soil between the rows of plants is very bad for the latter, and must be avoided as much as possible. At the present time it is advisable to cut off all runners from the parent plants, to remove all weeds, and then hoe the surface soil lightly and forthwith put on a good mulch of rich soil and rotted manure mixed. Thus the best possible will have been done for the well-being of the plants throughout the winter months. Do all this work on a fine day when the ground is comparatively dry. Ivies may be planted now. There are many varieties, all having a beauty of their own, and where it is found necessary to cover some unsightly fence in a cool north, north-west or north-east aspect, or even in a south one, the Ivy will prove a really serviceable plant. Well-grown Ivy always looks cleaner and brighter than that which is grown in very unsuitable soil. The plants thrive in a soil in which some old mortar rubble has been mixed. The leaves from the trees are now falling; but autumn in the flower garden is a very pleasant season when everything is done to prevent real untidiness. Clean borders and sweep lawns regularly every week.

Vegetable Garden.—In some gardens the autumn-sown Spinach has made wonderfully good progress, and no error must be made now in the management of the plants, which consists mainly in the keeping of the soil free from weeds and loosened by the hoe, and also in the thinning-out of the plants to prevent undue crowding. One fine, sturdy plant is of more value than three weakly ones. New Zealand Spinach has also been serviceable this autumn, and in order that the utmost may be made of the leaves, it would be wise to lay some dry mats on them each night to protect them from frosts. The leaves of Rhubarb and Seakale which have faded must be cleared from the ground, but forcible pulling must not be practised; then the crowns will be well ripened for forcing later on. Protect any late Vegetable Marrows at night, and place ripening ones intended for preserving in a cool, dry place—an open shed or early vinery will do.

Fruit Garden.—During this week the grease bands should be put on the trunks of fruit trees to prevent the wingless moth gaining access to the branches. Strips of cloth should be well greased with cart grease or with carbolic soap and then wrapped in several folds round the stem of the tree about 1 foot from the ground level. I may also mention here that it is advisable to renew the greasing of the bands every month until next May. All leaves found under the fruit trees must be brushed up twice every week and burned. After the sweeping rake the surface soil with a sharp-toothed iron rake; in this way many moths will be destroyed. If there are props supporting the branches of the trees, greased bands must be put on them too. Continue the careful gathering of fruits as the latter ripen. It is very unwise to gather late varieties before they are ripe, as they will not keep sound long afterwards. The relabelling of fruit trees should also be done now where it is found that the labels are unsatisfactory; then the true names will be retained.

Greenhouse and Frames.—Every effort must be made to put the Violet plants in frames where this work has not as yet been done; and plants that are already getting established in the frames must be grown hardily—that is, while there is an absence of frost and fog the glass lights should be kept off. Simply remove faded leaves and give water if necessary. The newly housed plants of Chrysanthemums and Zonal Pelargoniums must also be attended to. Ventilate freely and give water only when it is needed. Set times for watering, whether the plants require any or not, will not answer a good purpose. Water and feed in the early part of the day. B.

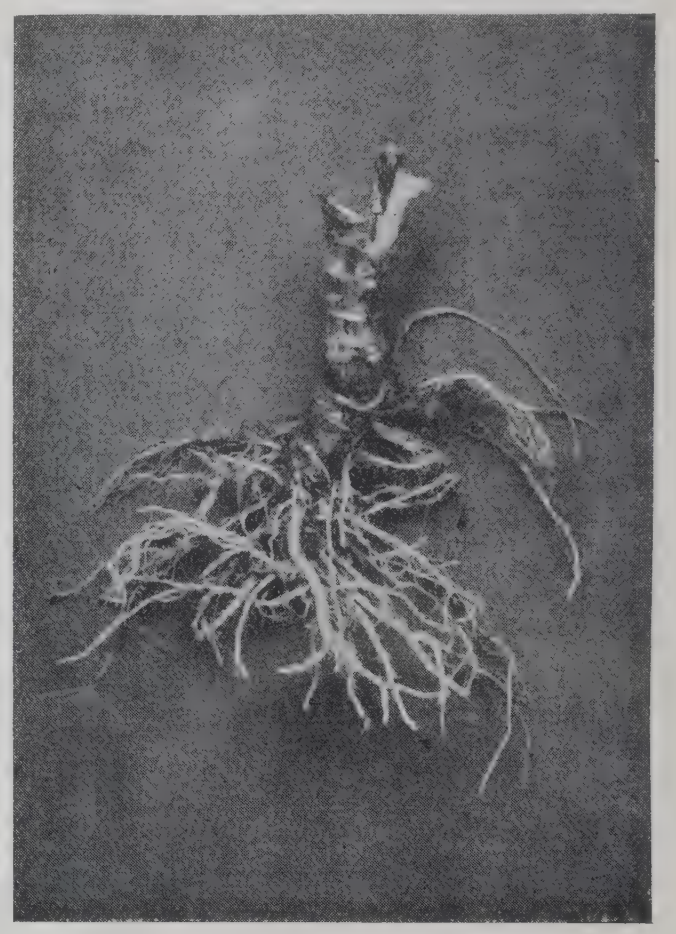


1.—A CAULIFLOWER ROOTSTOCK WITH THE ROOTS AFFECTED BY CLUB OR ANBURY DISEASE. NOTE HOW THE ROOTS ARE SWOLLEN.

CLUB-ROOT IN CAULIFLOWERS AND OTHER GREENS.

THE disease known as club-root, club-foot, finger-and-toe, or anbury, is one of the most troublesome with which the gardener has to contend. It is prevalent on most land that has carried several crops of Cabbages or other greens and has not received frequent dressings of lime, but is very rarely met with on chalky land. It attacks all the members of the Cabbage family, including Cauliflowers, Kale, Brussels Sprouts, Radishes, Turnips and Swedes, Wallflowers, Stocks, Honesty and other related ornamental plants, and such common weeds as Shepherd's Purse and Charlock or Wild Mustard.

The fungus which is the cause of the disease is known as Plasmodiophora brassicæ. It is a very minute organism and has a rather simple life-history. The spores are in the soil and germinate when there is sufficient warmth and moisture, a tiny particle of jelly-like protoplasm issuing from the spore. This little living speck, if it comes in contact with delicate newly formed cells of cruciferous or Cabbage family plants, is able to make its way through their walls and so enter the root of the plant. Once it finds itself within the cells of the root where food is abundant, it begins to multiply very rapidly, producing other specks like itself. Its presence irritates the cells of its host, so that more and more food is sent by the plant to the spot attacked, and a large swelling results, many of the cells of which are filled with the progeny of the little fungus which first invaded the root, all of them so far in the jelly-like form. A little later they separate from one another, and each surrounds itself with a wall, so that numerous spores are



2.—A NORMAL AND HEALTHY CAULIFLOWER ROOTSTOCK.

produced. When the root decays these spores are liberated into the soil, where they may lie for several years.

As so much food is sent by the plant to the root to feed the fungus and to produce the swelling, its above-ground development is greatly interfered with, and at the same time the normal development of the roots is checked, so that the plant suffers all round. It has been stated that it is only in the seedling state that the plant is liable to the attack of the fungus; but, although it is probably most sensitive then, we have good evidence to show that it is liable to attack at any period of its growth. It is therefore obvious that planting of Cabbages and their allies in ground known to be infected should be avoided and all cruciferous weeds should be rigorously kept down. All plants showing symptoms of swellings on the roots should be discarded and burnt at the time of transplanting. If any are found later, their roots should be removed as completely as possible and at once burned (not fed to pigs, &c.). Quicklime at the rate of about half a bushel to one bushel to the square rod is the only thing that can be at all depended upon to check the disease when once the spores are in the soil, and this application may need repeating. Fig. 1 shows a Cauliflower root attacked by this disease, and in Fig. 2 a normal rootstock is depicted. SCIENTIST.

DISBUDDING CARNATIONS.

Now that the beautiful perpetual-flowering Carnations are being so largely grown for the purpose of providing flowers during the winter months, a hint to beginners regarding disbudding

3.—ON THE LEFT A DISBUDDED CARNATION IS SHOWN, AND ON THE RIGHT A FLOWER-STEM NOT DISBUDDED.

to produce larger flowers will not be out of place. Even where the plants are not grown for exhibition, it is wise to disbud during the winter, as the energy of the plant is thus concentrated on a few blooms which are then the more likely to open well.

On the left of Fig. 3 a disbudded flower-stem is shown. When gathered from the plant for the purpose of being photographed there were three buds on the stem, and it will be noticed that these have been reduced to one, which was, obviously, the uppermost. On the right a similar stem is shown before disbudding had been done. If it is a good one, the uppermost bud is the best to leave; but should it have been damaged in any way, select the next best, and cut or pinch away all the others close into the flower-stem. The buds that are to come away should be removed in a small state and before they get as large as those shown on the right of the illustration. This disbudding may be applied to all types of Carnations with equal success, and will make a considerable difference in the size, substance and colour of the blooms.

PLANTING BULBS IN GRASS.

Narcissi, Crocuses, Snowdrops, Jonquils, Scillas and similar bulbs look very charming growing in the grass under trees, near shrubs, on banks and in valleys. In many gardens there are plots that are not kept in the neat manner that a lawn usually is; and in these plots many or only a few bulbs may be grown, according to the wish of the cultivator. Now, when bulbs are so grown—that is, in a natural way—the mistake of formal planting must be avoided. Instead of having formal groups, we should have trails of blossom in the grass and irregular-shaped clusters as well as isolated specimens, so as to imitate Nature as much as possible. It is false economy to put in weakly or unripe bulbs, because such would not flower in the positions I have referred to, and it would take a long time to get them strong enough to be satisfactory. Shamrock.

THE CORAL-SPOT FUNGUS.

Everyone must be familiar with the small, coral red, wart-like spots so common upon pieces of dead wood, such as Pea stakes and dead branches of Currant bushes. These little growths, bursting through the bark of the twigs, consist of a number of threads of a fungus known to botanists as Nectria cinnabarina. At the tip of every one of these threads small cells or spores are pinched off, each capable of reproducing the fungus if it falls upon a suitable substance on which to grow and have a sufficient supply of water and air and a suitable temperature. Later in the season, in this same wart-like growth, tiny flask-shaped bodies are formed, within which other spores are produced of a different shape from those produced at first; but, like them, each capable, under suitable conditions, of reproducing the fungus. The spores of both kinds are easily disseminated by wind and insects.

Interesting as the occurrence of different forms of fruit and the sequence of changes which occur in the life of the fungus from the spore to the fruiting-time are, the gardener, naturally and rightly, desires to know what part the fungus plays in relationship to the things he cherishes. Is it, in this restricted sense, useful or harmful?

This fungus is rather strange in its habits, for when the spore first germinates it is incapable of attacking living tissues. It can grow only upon dead wood, such as dead twigs of Currant or dead branches of Hazel, Chestnut, Walnut, Lime and so on. When once it has gained an entrance into this dead wood, however, its mycelium (the slender threads of which the plant itself consists) are able to spread into and kill the adjacent living tissues, and so death may be carried far beyond the point it had reached before the fungus gained a foothold. Its fruit is formed only upon the dead tissue, and so its presence beyond the dead part may be quite unsuspected.

Thus the fungus, from the point of view of the gardener and tree-lover, is to be kept in check as far as possible. It is plain that attention must be directed to three points. (1) It is unwise to leave dead wood lying about among trees that are valued. Such wood, especially if it shows the conspicuous fruits of the fungus, is better burned. (2) All dead and dying wood should be carefully pruned out of Currant trees, and, indeed, of all trees, for this is the part first attacked by this fungus and others having

4.—PORTIONS OF DISUSED PEA STICKS ATTACKED BY THE CORAL-SPOT FUNGUS.

similar habits. (3) All pruning should be carried out so that the wounds made will heal with the greatest possible ease. They should be clean cuts, made with a sharp knife, and so that no "snags" are left beyond a bud. Fig. 4 shows the fruiting bodies of this fungus on a piece of Lime tree which had been utilised for sticking Peas.

THE TOWN GARDEN.

Preparing Beds for Bulbs.—Beds of bulbs look very charming in the town garden in spring, and no trouble should be spared in getting the beds ready for the bulbs in good time. It is not advisable to merely clear away the summer occupants of the beds, level the soil on the surface and then put in the bulbs. In a few instances where the soil is naturally rich and in very good condition, the bulbs may be put in as stated with every prospect of success. In the ordinary way, however, it is best to thoroughly dig up the soil and mix some well-rotted manure with it, and, if available, a small quantity of clean, gritty material in cases where the soil is of a clayey nature. In small gardens where the flower-beds are formed near to trees or shrubs, the roots of the latter permeate the soil in the borders, and if they are left in they would rob the bulbs of much nourishment. Therefore it is a very important matter that all roots of shrubs and trees be cut out before bulbs are planted. Where surface-rooting plants are grown in the same bed as the bulbs, the latter must be put in first; but in order to avoid the mistake of putting in the surface plants right over the buried bulbs, a small stick should be driven in immediately over each one. When the plants are duly put in the sticks may be removed. The flowers of the bulbous plants look very well indeed with the carpet of foliage and flowers of other kinds of plants beneath them, especially when all harmonise, and this important point must be duly studied at the time of planting. There is always a tendency to have red, white and blue Hyacinths in a flower-bed. Of course, such beds look very well, but a change is required sometimes.

Daffodils and Wallflowers.—These, in themselves, are sufficient to make a garden look gay and very home-like in spring. The bulbs of the Daffodils must be planted in groups of, say, seven in small beds and twelve in large ones, several groups in each bed, the Wallflowers being used to fill up the remaining spaces in the borders. When so carried out the arrangement looks informal and like the old-fashioned style of gardening. Snowdrops in grass and Crocuses in the side borders also look very beautiful; but as the time of planting may be best a little later in the month where other beds must be dealt with, further reference to the actual planting of the bulbs will be made. In the meantime, readers may make their final purchases of bulbs.

Evergreen Shrubs.—The Aucuba and Euonymus are two very valuable plants for the town garden. Both are fairly hardy, and do not seem to be damaged by frosts and cold winds in winter-time to the same extent that many other kinds of shrubs are. From one specimen of each kind a good batch of young plants may be raised. I will briefly explain how this may be done. I will presume that readers wish to hide walls, to make up gaps, or to fill borders with comparatively hardy shrubs with bright-coloured leaves. Well, they cannot have better kinds than the two here referred to. Young branches of the Aucuba, about 9 inches long, must be cut off; but the very soft, sappy branches should not be selected. To make the branch into a cutting sever the stem just below a leaf joint, and remove also the lower leaves halfway up the stem. Dig up the soil on a border facing the north or the east, and then tread down the soil firmly while it is dry. Make trenches 1 foot apart and 4 inches deep. Put some coarse sand in the bottom and then insert the prepared cuttings in the trenches so that the leaves just clear each other. Make the soil very firm around the base of each cutting and give water. Nothing further is required except to tread down the soil again after each severe frost. The cuttings of the Euonymus must be inserted in a similar way, but in a cool frame, if one is available, and about 6 inches apart each way. Avon.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Flower Garden.

ROSE-BEDS.—Keep these clean and free from weeds, dead leaves and suckers, and should the surface soil be hard, slightly loosen it to prevent cracking. Lose no time in preparing new beds intended to be planted this autumn, and the subsoil should be thoroughly broken up to a good depth and use ample drainage on heavy, low-lying land. Select the names of the varieties required and order early, so that they may be planted before the weather gets too cold.

Carnations.—Those layered some time ago and which may have become well rooted will need attention. Beds to be planted will require plenty of sweet loam, grit, &c., to keep the soil open. Give a good sprinkling of lime, soot and wood-ashes, and when planting make the soil moderately firm. Lift the layers with plenty of roots and soil adhering. The planting of Croci, Aconites and Narcissi may be done if the ground is vacant.

Calceolarias.—The shrubby Calceolarias will root freely if the cuttings selected are young and inserted rather close in a sandy soil resting on 2 inches or 3 inches of manure on a hard surface. The frames should be kept close and shaded in bright weather. Pentstemons root well under similar treatment, and many other plants suitable for beds and borders, Primroses and other spring-blooming plants, as soon as the land becomes vacant may be got out where they are to remain and flower.

Hardy Fruits.

Peach and other young trees which are inclined to develop too much wood, with its accompanying coarseness, will be all the better if the roots are lifted entirely and replanted. Do not mutilate them more than can be helped, but take them up and trim damaged thongs. Relay them again at different angles and depths, adding a little moderately dry sweet loam as the work proceeds. Mulch with rather strawy manure to keep the frost from penetrating the soil too deeply in winter. Larger and unfruitful trees will benefit greatly by root lifting or pruning; but when carrying this out sever any strong tap-roots which have gone down into the cold subsoil, such roots being the main cause of fruitless trees. Attend well to the

Ingathering of Apples and Pears as they approach ripeness. Gather the fruits with great care and when perfectly dry. If good and sweetly flavoured fruits are to be expected during the winter, a suitable place to store them should be provided, otherwise, in addition to a great loss of the best by rotting, those which keep fairly sound will fall short of flavour.

Kitchen Garden.

Potatoes.—These should be taken up and stored as quickly as possible. If convenient keep the seed ones apart, and store where frost cannot reach them. Be careful to keep the varieties separate and correctly named. Continue to earth up late Celery, doing this when the hearts are perfectly dry. Do not put too much soil to the plants at one time, to prevent the hearts from growing, till the final earthing takes place. Keep the hoe, whenever convenient, freely plied between all growing crops to encourage growth and the destruction of weeds. Young Cauliflower plants raised from seed sown a month ago will be large enough to plant where they are to remain during the winter.

H. Markham.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

Conservatory and Greenhouse.

Plants in Bloom require and repay careful treatment to enable them to maintain the present display of inflorescence for some time longer, as, until Chrysanthemums commence to open, this must be of a gradually dwindling character than otherwise. Remove faded foliage and flowers as they appear, and slight manurial stimulant applied once a week will be helpful. From now onwards dampness will be the bane in cool houses; accordingly, watering is best done early in the day and its use restricted as much as possible; while in wet or dull weather a little fire-heat will cause a buoyancy of the air and dispel moisture very considerably.

Bulbous Plants.—The main supply of these should now be potted, using a compost of three parts loam to one of leaf-mould, sand, and well-decayed manure; 5-inch and 6-inch pots will be large enough for Roman Hyacinths, Duc Van Thol Tulips and the early forms of Narcissus.

Hyacinths of the large-flowering type may be potted singly in 6-inch pots, or three bulbs may be grown in those a trifle larger. Single-flowered kinds are most in favour, and a few selected from among many are Charles Dickens, Macaulay, Norma, Gigantea, Grand Vainqueur, Robert Steiger, La Candeur, Mont Blanc, Czar Peter, Bird of Paradise and Queen of Yellows.

Tulips are more in favour than the former, owing to their adaptability for use as cut flowers and as being less strongly scented. In potting place the bulbs so that the apices are just visible above the soil, place the pots or other receptacles upon a level site, and cover all with 6 inches in depth of coal-ashes or sand. Here they may remain undisturbed for six or eight weeks, by which time rooting and a start in top growth will have taken place.

Pelargoniums of the Zonal type intended for winter flowering should now be arranged in a light, airy house, where fire-heat can be turned on at will. While the weather continues favourable admit air freely, and until the flower-heads show withhold manurial stimulants other than clear water.

Fruit Houses.

Vineries.—Late Grapes should now be well coloured, but as the ripening process will continue for some time, maintain a slight heat in the pipes to facilitate this. Decaying berries should be removed as soon as observed, or others around will become affected, to the detriment of the appearance of the bunches. Houses whence the fruit is cleared may have surplus shoots cut away and the leading growths moderately shortened, after which a washing by means of the garden engine overhead and needful supplies of water to the borders will put in readiness the structures to receive Chrysanthemums and other plants in due course.

Pot Vines intended for very early forcing may be pruned as soon as the leaves fall, leaving the main rods 6 feet or 8 feet in length, according to their strength or the size of house that will eventually accommodate them. Though best outside for some time to come, it is unadvisable to allow the roots to become unduly saturated with autumn rains; hence some means of preventing this should be devised.

Peaches and Nectarines.—As the fruit is cleared from the earlier houses, it is beneficial to the trees to prune away all secondary shoots and sufficient of the older bearing wood to allow that of the current year to be tied in place while yet pliable. Syringe or otherwise wash the foliage, and should red spider have gained a footing, a little sulphur incorporated with the water will help to disperse this; although unsightly at the time, it is easily washed off both woodwork and foliage later on.

James Day.
(Gardener to Sir Malcolm M'Eacharn.)
Galloway House, Garlieston, Wigtownshire.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* The Garden *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* Editor *of* The Garden, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* Publisher. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Some good Daffodils and Tulips (*R.*).—The greatest faith may be placed in the following: Horsfieldi, Emperor and Empress—a stately trio with large trumpets and broad perianths of decided colouring—the dainty Pheasant's-eye or Poet's Narcissus (N. poeticus ornatus), Maximus, Golden Spur, Ard-Righ, M. J. Berkeley, grandis, Barri conspicuus, P. R. Barr, the sweetly scented Leedsii and the even prettier Leedsii Duchess of Westminster, Queen of Spain, Mme. de Graaff, Sir Watkin, Mr. J. B. M. Camm, Stella superba, Burbidgeii, princeps, albicans, and the quaint double Daffodils, the old double called Telamonius plenus, and the orange and sulphur Phœnix. One of the earliest and most useful of Narcissi is Stella superba. We planted a quantity of it in a well-made border five years ago; the border has received no fresh soil, but this fluttering flower that bends before the slightest breeze has never degenerated. It peers through the soil as vigorously as the first year after the bulbs were planted. Unfortunately, on dry, hungry soil Daffodils are not a success in the grass. The richest Tulips in colour for beds are, of the early kinds: White—Pottebakker, Snowdrop and White Swan; scarlet—Artus, Red Brutus, Scarlet Beauty and Sparkler; orange scarlet—Keizerskroon and Duchesse de Palma; yellow—Yellow Prince, Pottebakker Yellow, Ophir d'Or and Chrysolora; crimson—Bacchus, La Belle Alliance, Vermilion Brilliant, Crimson King and Van Vondel. The late Tulips belong to May—tall, majestic flowers, of which the Crimson Gesner is the most splendid. The Darwins are delightfully varied and effective, and those who care for quaint forms should choose the Parrot Tulips. The May Tulips bring a fresh beauty to the garden when the Daffodils are just fading away, and a bed of the Gesners when in the full flush of their warm, rich beauty, is almost painfully intense, the inky pool in the centre throwing into greater relief the wonderful colouring of the petals. When the bulbs are carefully chosen, the first year after planting it is not unusual for the stems to reach about 3 feet in height, but after the third year they degenerate sadly. We have found that with the greatest care the late Tulips are of no value after the third year, and annual lifting is almost a necessity. This, of course, entails considerable labour, but the reward is great. We reserve a small plot in the kitchen garden for this species and the tribe to which it has given birth for the sake of cutting the glorious flower-goblets for tall vases in the house. Many of the hybrids and varieties have a faint and sweet fragrance. Five inches deep.

Rock garden plants for July and August (*C. E. J.*).—You will find the following of service for the months named: Androsace lanuginosa, Thymus serpyllum coccineum, Zauschneria californica, Campanula garganica, C. g. alba, C. g. hirsuta, C. Profusion, Polygonum Brunonis, Erigeron mucronatus, Silene maritima plena, S. alpestris, Sedum kamschaticum variegatum, S. spectabile, Gnaphalium Leontopodium, Opuntia humilis, O. rafinesquiana,

Genista prostrata, Geranium argenteum, Erodium macradenum, Arenaria cæspitosa and others. You might also indulge in the following, which are always pleasing, whether in or out of flower: Sedum Sieboldi, S. Lydium, S. spurium in variety, S. glaucum, S. middendorffiana, Sempervivum arachnoideum, S. calcareum, S. montanum and S. Laggeri. Crocus speciosus and Cyclamen neapolitanum are also pretty about September.

Herbaceous plants for shade (*Herbaceous*). If the shade is dense and the trees large you will not be able to grow and flower many things with success, though Ferns generally would succeed quite well. Of the more suitable of shade-loving plants that occur to us at the moment are the broad-leaved Megaseas, Solomon's Seal (one of the very best), London Pride, Lily of the Valley, Polyanthuses and Primroses, Daffodils in variety, Foxgloves, Honesty, Woodruff, Lenten and Christmas Roses, Hepaticas, Campanulas of the Peach-leaved section, also lactiflora and others, such Lilies as canadense, pardalinum, candidum, testaceum, tigrinum, Flag and other Irises, Dielytra eximia, D. spectabilis, Japanese Anemones, and the like. A large variety of Michaelmas Daisies do not object to light shade, and we have been looking for weeks past on a delightful hedge of Sweet Peas that is completely shaded by Apple trees, finer blossoms having been taken therefrom than from the more open positions where the soil is light. We regard these latter as a great gain in shady places.

Information about Liliums (*Lewis F. Barton*). The Liliums you refer to may be all grown in a soil composed of loam (three parts), with sand and manure finely sifted, equally, for the other part. If you possess charcoal, a small proportion may be added with advantage. In the case of L. lancifolium—the correct name of which is L. speciosum—a richer soil may be employed. Imported bulbs should be potted as soon as received, placing them under a cover of ashes or in a frame till growth appears. No water should be applied till this stage is reached. When in free growth and well rooted, ample supplies of root moisture should be given, and care should be taken to keep insect pests in check. When about mid-growth has been made, a surface dressing of rich soil should be given to support the stem-roots freely produced at that time. After flowering, the plants should be treated much the same as before till the falling of the leaves suggest that the growth has completed its season's work. At this time the bulbs may be repotted, first exposing the top soil to the level of the bulbs and slightly reducing the soil lower down with as little injury or mutilation to the roots as circumstances will permit.

TREES AND SHRUBS.

Climbers for a fence with a south-west aspect in Argyll (*D. M. M.*).—The following climbers other than Roses are suitable for your purpose: Clematis montana, C. montana rubens, C. Jackmani superba, C. Anderson Henryi, C. Flammula rubro-marginata, C. Mme. Edouard André, Solanum jasminoides, Hydrangea altissima, Jasminum nudiflorum, Clianthus puniceus, Akebia lobata, Passiflora Constance Elliott, Lonicera sempervirens and L. japonica halleana. The best label for the purpose you mention is Chandler's Patent Indelible Label, to be obtained from Messrs. Osman and Co., 157, Commercial Street, London, E.C. This is a thin metallic label and can be written on with a pointed stick. The point of the stick impresses the letters into the label. It is used for plants that have to make long sea voyages or for things that have to be packed damp for a long journey.

How to stake young trees (*A. H. R.*).—In order to prevent the ties or wire from cutting into or chafing the bark of the tree, a short length of stout rubber hose is one of the best things that we know. A good plan to secure a tree in position is to drive in three stout stumps firmly in the ground, at a distance from the main stem proportionate to the height of the tree. They must be arranged triangular-wise. Then fasten a piece of stout wire to the main stem about three parts of the way up the tree and secure it to one of these stumps. This must also be done in the case of the other two, when the tree will be held securely in position from whichever point of the compass the wind blows. Each wire where it touches the tree should be passed through a piece of rubber hose. Even if one stake is sufficient, the hose will be found a good preventive of chafing. With regard to tree guards, as iron ones are too expensive it is possible that effective ones could be made locally at a cheaper rate from timber too rough for many purposes. It is important to stake young trees strongly, especially as the winter is coming and disturbance at the roots is fatal.

Raising trees from seeds (*P. H. Edmunds*).—We do not know of any book which deals exclusively with raising trees from seeds. You can, however, obtain a great deal of useful information on tree and shrub propagation from "Trees and Shrubs for English Gardens," published at this office, price 10s. 6d.

THE GREENHOUSE.

Hydrangeas after flowering (*J. Lunnon*).—Whether Hydrangeas will need repotting each year depends entirely upon the condition the plants are in and the size of the pots. You do not give us any idea as to either of these points, and for this reason our advice is naturally limited. As the season is so far advanced, we should certainly not repot the Hydrangea till the spring unless it is very much potbound. Hydrangea paniculata should, early in the year before growth recommences, be pruned back to within two or three eyes of the old wood and be then repotted, that is, if repotting is necessary, but a personal inspection only can decide that point. If you decide not to repot, an occasional stimulant in the shape of liquid manure during the growing season will be helpful.

Winter treatment of Gloxinias, Achimenes, Cannas and tuberous Begonias (*Lewis F. Barton*).—The Gloxinias when the plants have matured and the leaves fallen away may be laid on their sides to prevent moisture reaching the tubers, or the latter may be shaken free of soil and stored in perfectly dry sand in a temperature of no less than 45°. If you have room to retain the bulbs in their flowering pots, they do quite well in this way; but as you would have to shake them out in spring nothing would be gained. Indeed, shaking them out in autumn and placing in pots of dry sand—a pot 8 inches across will take a couple of dozen tubers of moderate size—acts as an economiser of space. The Begonias and Achimenes may be treated in the same way, except that the former require a lower temperature for storing. The Cannas will winter quite well if placed beneath the stage of a greenhouse, arranging them close together and sprinkling over them some light soil, or they will be safe enough if placed in a fairly dry, frost-proof cellar. Apart from this, the thing to avoid is a place that is excessively dry. Drip also settling in the crown is harmful. It is important that these things be moderately dry before being stored away.

ROSE GARDEN.

Roses for cold greenhouse (*Herbert*).—We have rather a difficulty in selecting two dozen from your list that are really suitable for cultivating in a cold greenhouse. For this purpose you really require sorts of the Caroline Testout and Frau Karl Druschki type. However, we name the following, and with care you should be able to grow them all right: Liberty, Richmond, Mme. Falcot, Safrano, Mrs. W. J. Grant, William Shean, Betty, Le Progrès, Mme. Ravary, Mme. Hoste, Paul Ledé, Pharisaer, Lady Roberts, Maman Cochet, Antoine Rivoire, Melanie Soupert, Marie van Houtte, Joseph Hill, Lady Ashtown, Mrs. Theodore Roosevelt, Prince de Bulgarie, White Maman Cochet, Francisca Kruger and Souvenir de Pierre Notting.

Rambler Roses shedding their buds (*P. B. H.*).—We believe the cause of this is mainly owing to the very uncongenial weather. We have heard of this occurrence from several sources this season. Probably the embryo buds were injured by the late spring frosts and chilly nights, and no doubt the excessive rainfall has a deal to do with it also. We should not have mulched the plants in such a season as this, as it would have been better to have allowed a freer access of air and warmth to the soil, which the surface mulching prevents. Even now you will do well to fork in the Hop manure and see that the soil is kept loose around the plants. That the bush Roses have been a success, even though growing under similar conditions to the rambler, is accounted for by the fact that their buds are less freely produced than the ramblers and they have quite a different nature.

Hybrid Teas for a new bed (*Pierrot*).—Many of this beautiful tribe are lacking in scent. Even Mrs. W. J. Grant has no special fragrance. We name a few of each colour you desire, and we think any of these will meet with your stipulations of erect growth, good shape and fragrant: Pink, Gustave Grunerwald, Mme. Segond Weber, Killarney, Mme. Abel Chatenay and Mme. Edmee Metz; white and blush, Augustine Guinoisseau, Mrs. David McKee, Admiral Dewey and Molly Sharman Crawford; yellow, Mme. Ravary, Mrs. Peter Blair and Le Progrès; crimson, Richmond, General Macarthur, Liberty, Lady Battersea and Laurent Carle.

Autumn pruning of Roses (*S. F. S.*). It is not advisable to prune Hybrid Tea Roses in autumn, for it is at this season of the year they should be giving us a wealth of blossom. As you do not care to see your plants with the tall growths, you could shorten them back a little, cutting them to the first plump eye beneath the pronged growths. You could transplant the half-standard Roses planted two years ago. If this is done during the latter part of October, you should have every success with them. Trim over their roots and search for sucker eyes that produce the wild Briar. Cut back the growths to within 6 inches or 8 inches of the base of the shoots and remove all foliage as soon as you dig up the plants. Lay them in by their heels in a shady spot until you are ready to replant.

Rose Fortune's Yellow shedding its foliage (*Moor Hen*).—You appear to have taken special care in preparing the soil for this Rose, and a depth of 3 feet should be sufficient for a three year old plant. Sometimes this shedding of the foliage during the growing season (a peculiarity of the variety) is owing to a bad subsoil; but this cannot be so in your case, and we can only assume the trouble arises through some defect at the junction between stock and the bud. Own-root plants are much to be preferred. You might possibly be enabled to layer one of the lower growths into a large pot. This should give you a good own-root plant to take the place of the present plant if it fails. We advise you to cut back the growths at once, as the correct time to prune this Rose is immediately after it has bloomed. Prune the side or lateral growths back to one eye or bud, and any old growth that appears sickly remove altogether. We think very possibly it may be that the old wood that has flowered so abundantly had been slightly injured by frost, but not sufficiently to retard its blooming. Young, well-ripened wood always gives the best results. If you are satisfied the soil is sufficiently moist, do not give any more liquid; but if the subsoil is gravelly, a good soaking with clear water would be advisable. Perfect drainage is necessary with Roses of this type, as indeed it is with all wall Roses.

FRUIT GARDEN.

Seeds growing inside a Melon (*R. W. D.*).—In our experience of forty years in the growth of Melons we have not infrequently come across a similar example to yours, with this difference, however, that we have no recollection of seeing a green growth under these conditions before. In the absence of air it is, we suppose, impossible for growth to take place, and in the absence of light we presume it is equally impossible for growth to take on a green colour, and, therefore, in the ordinary nature of things one would expect to find some slight opening at the stalk or some other part of the fruit where, at any rate, a little air could penetrate. If it is not so, it is a case for scientists to solve.

Young Apple trees doing badly (*H. B.*).—Seeing that your trees have made such little growth during this favourable season to the growth of trees, we are inclined to conclude that the land is poor and that your local people's advice to manure is a sound one. Young trees in poor soil must have a little help in the way of manure to give them a start. Well-decayed farm or stable manure is no doubt the best, as it contains a considerable amount of humus, a necessary constituent of any soil for healthy growth, which artificial manure does not. If you decide to apply farmyard manure, you should first clear the ground round the trees as far as you think the roots extend of any grass or other growth, and apply a dressing 4 inches deep over the surface of the ground thus cleared, leaving it on during winter and spring. The time to apply it is the end of October. Seeing that the trees

have made but little growth, we should let them go unpruned this winter. Should you prefer to apply artificial manure, the following is the best we know of. We have no means of ascertaining the cost, but any manure merchant advertising with us would tell you. Nitrogen, 45 per cent. ; ammonia, 5 per cent. ; phosphates, 35 per cent. (10 per cent. of which must be soluble) ; potash, 3 per cent. Apply a quart to each tree, scattering it over the surface soil and gently forking it in.

To improve old Apple trees (*H. Dawson*).—The first thing we would do would be (as soon as the leaves have fallen) to remove 5 inches or 6 inches of the surface soil as far as the roots extend, and then give each a thorough good soaking of strong liquid manure from the stable or cattle yard, and another similar soaking in a week's time. Immediately the ground is dry enough after this soaking replace the soil taken away with the following compost : To one cartload of well-decayed, rich farmyard manure add the same amount of good loamy soil, half a hundredweight of bone-meal and the same of quicklime. Place this dressing over the roots while the soil is not too wet, and tread it down firmly. Towards the end of April give the old trees another good soaking of manure-water, and immediately afterwards a covering (4 inches deep) of short, fresh, littery stable manure to cover the same area of ground as the first soil dressing. This will prevent the too rapid evaporation of moisture from the soil, and also help to feed the young summer roots, which will soon fill the new top-dressing of soil given the trees in winter.

Keeping Pears (*H. John*).—The chief conditions it is necessary to secure in any room or place where Pears are to be kept well, and where they will properly ripen and mellow down, is that it should be dark and not too airy, and where the air is rather on the moist side than on the dry and the temperature during winter ranges from 48° to 56° Fahr. They should be protected from frost by covering over in hard weather ; neither hay nor straw should be used, or the fruit will taste strongly of it afterwards. A dairy, cellar or a room in the house with a north aspect, where the temperature does not vary much, would do very well. The most convenient way of storing them, we think, is by investing in a few of those cheap, light and shallow trays now common on the market. These will hold anything from twelve, twenty-four to thirty-six each, according to the sizes wished, and can be stored away in odd corners where space is limited. The fruit from time to time can be easily examined in these.

KITCHEN GARDEN.

How to treat Sage for winter use (*I. W.*).—The Sage must be cut while it is in bloom, and the stems, leaves and flowers, just as cut from the plants, must be laid on paper in an airy shed to dry. Directly it is all dried, tie up the Sage into small bundles—about one dozen stems in each bundle—and suspend them from nails in a cool, airy room or cupboard. So gathered and treated, the Sage will retain its full strength. It must not be exposed to the sunshine.

Spring-sown Onions (*F. J. G.*).—At many rural exhibitions Onions raised from seed sown under glass in January or February, and later planted outdoors, are classed as spring sown. In other cases there are special classes for glass-raised Onions, and in other cases the spring-sown class rigidly excludes winter-sown Onions. You refer to Onions planted out, but do not say when the seed was sown. We assume you do not mean plants raised from an autumn sowing and transplanted in the spring, as, of course, these could not be spring sown. If you look at the Onion classes in the schedule of THE GARDEN Show you will see there those suitable for autumn and those for spring. Now, while we cannot well control the judges' decision, yet, if appealed to, we should say as Onions raised from a sowing in January or February cannot be classed as autumn sown, they must of necessity be classed as spring sown, as the months named may just as well be classed as spring months as November and December are termed autumn months. It is always so much better to take a broad view of schedule conditions than very limited or restricted ones. If an Onion sown in March, or even in February, outdoors is spring sown, equally so is one from a sowing in January. The term "spring" admits of a wide definition. The Orange-flowered plant is known as Diplacus glutinosus and also as Mimulus, but while the latter are soft-wooded this plant is hard-wooded or shrubby. The plant is very glutinous or sticky. The other flower was too crushed to be recognisable. All flowers for naming should be put into boxes with some damp paper or moss.

Tomatoes under glass splitting (*Lewis F. Barton*).—The cause of splitting in these fruits may be due to an exceptionally thin, almost transparent skin, to over-ripeness, or to an excess of moisture supplied after a season of too much dryness. The same thing will happen when the house is kept unduly moist, and particularly so with sudden bursts of strong sunlight. Some varieties are more prone than others to splitting, the split appearing across the top of the fruit or near the base about the stalk portion. Excessive feeding of the fruits, particularly where the latter are permitted to remain long on the plants, is another fruitful cause of the splitting, and it is more marked in those instances where the plants, having been unreasonably defoliated, are less capable of taking up and assimilating the food supplies afforded them. In other words, the splitting of the fruits is very much the result of cultural errors, and possibly from the above you might be able to trace the cause in your own case. Fruits when fairly coloured should be gathered at once and finished off in a dry, warm room. If left on the plants, they not only distress the younger fruits, but intercept the moisture necessary for these and, as they could not use it, would create the splitting to which you refer.

MISCELLANEOUS.

Plants for inspection (*F. A. Newall*).—The plants appear to be suffering from lack of phosphates in the soil. There is no fungus present. The Rose has been badly attacked by Rose aphis, and should have been sprayed with nicotine and soap or quassia and soft soap on the earliest appearance of the pest.

Using potassium sulphide (*R. P., Winchmore Hill*).—The potassium sulphide is itself an insecticide, and may be made more efficient by dissolving 2lb. of soft soap in ten gallons of water together with 5oz. of potassium sulphide, and then churning into the mixture, so as to make an emulsion, 16oz. of paraffin (lighting oil).

Weed in lawns (*E. T. Lightfoot*).—The weed that is growing in your lawn is one of the Hawkweeds (Hieracium species). It is, however, impossible to determine the particular species without flowers. A dressing of one of the various lawn sands advertised would get rid of a lot of it, but the dressing would probably have to be renewed next year, as seedlings are sure to appear again. A dressing of rich soil applied this autumn would also do good by strengthening the grass and helping it to crowd the Hawkweed out. It is almost impossible to get rid of it by hand-weeding, as may be done with Plantains.

Various questions (*Canadienne*).—The Phloxes require rich and moist soils and frequent deluging with water in ordinarily dry seasons, otherwise the results are most disappointing. Old plants, too, are well-nigh useless and should be discarded in favour of younger ones. Given this treatment they do quite well in any open border, but failing it would be better with a slightly shaded position. Dahlias also require much the same treatment as to soil and water ; but these are not hardy, and must be lifted each year when frost has destroyed the leafage. If your Fuchsia is a hardy one, it will do quite well in sun or in partial shade, and may be cut down each year or not. The Turk's-cap Lily would be best in rather deep, heavy loam in a border having a western exposure, while the Day Lilies will succeed in sun or in shade provided a fair depth of soil is at hand. The Golden Rods are by no means exacting, as they will grow in woods or near water. Thinly planted in the shrubbery they are also effective. The transplanting of any of the above requiring it may be undertaken during the next few weeks.

Basic slag as manure for a lawn (*G. B. S.*). In order to maintain a lawn in the best possible condition, it is necessary that the loss sustained by the growth of grass crops cleared away by the mowing-machine should be made good by something more substantial than an occasional dressing of artificial manure. The best way of doing this, we think, is by giving the lawn a good dressing every October of the following mixture : To half a ton of well-rotted farmyard manure add the same quantity of ordinary garden soil, further adding to this double quantity half a bag of bone-dust and the same of lime, well mixing together. This should be spread over the lawn to the depth of a quarter of an inch. It will not be pleasant to look upon for a short time, but it will soon be absorbed by the grasses. In addition to this, a slight sowing of Peruvian Guano should be given the first week in March, and again the first week in June. Thus attended to, a lawn may be maintained in splendid condition for any length of time. Basic slac is an excellent manure for promoting pasture growth, but it so encourages the growth of Clover that it should never be used where this is objected to, as it usually is on lawns. Four hundredweight per acre is the proper dressing of this to apply, and the middle of October is the best time to apply it. If your lawn is now off colour, give it a dressing of nitrate of soda (crushing it very small) at the rate of 2½cwt. per acre, and it will soon assume a better colour.

Names of fruit.—*S. M.*—1, Souvenir du Congrès ; 2, Williams's Bon Chrétien ; 3, same as No 2, but probably grown on a different stock.——*O. B. W.*—Irish Peach.——*Colonel B.*—1, Blenheim Orange ; 2, Hambledon Deux Ans ; 3, Striped Beaufin ; 4, Duchesse de Angoulême.——*T. L.*—1, Gisborne's Plum ; 2, Lawson's Golden Gage ; 3, Guthrie's Gage ; 4, Old Green Gage.——*Fish.*—1, Apple Hawthornden ; 2, Warner's King ; 1, Pear Louise Bonne of Jersey.——*H. Ford.*—1, Cox's Emperor ; 2, Belle de Louvain ; 3, Denver Victoria ; 4, Late Orleans ; 5, Washington.——*Ayrshire Lad.*—Pear Souvenir du Congrès. We should advise lifting and root-pruning to prevent the cracking.——*F. J. Ashdown*—1, Smashed ; 2, Belle de Louvain.

Names of plants.—*George Hunt.*—Chrysanthemum maximum ; propagated by seeds, cuttings and division of the roots.—— *Enquirer.*—Tagetes pumila and Senecio elegans flore-pleno ; they are both annuals.——*J. C. D.*—1, Erigeron multiradiatus ; 2, Helenium autumnale var. cupreum ; 3, Astrantia major.——*M. J.*—1, Saponaria officinalis ; 2, Helianthus multiflorus flore-pleno.——*W. J. Palmer.*—1, Cypripedium cardinale ; 2, Miltonia candida ; 3, Cypripedium Roezlii ; 4, Odontoglossum læve.——*H. Morphy.*—Common Barberry (Berberis vulgaris).——*W. M.*—1, Please send specimen in flower ; 2, Thalictrum flavum ; 3, Scrophularia aquatica variegata ; 4, Veronica pinguifolia ; 5, Veronica pimelioides ; 6, Inula Helenium.——*Fish.*—1, Artemisia vulgaris ; 2, Chenopodium album var. viride.——*L. H.*—The name of the plant is Sparmannia africana. It is best grown in a warm greenhouse, and in the open air in summer-time. It makes a good dwelling-room plant.

THE KITCHEN GARDEN.

NEW PEAS AT BEDFORD.

MESSRS. LAXTON have some interesting trials of new Peas at their Goldington Road nursery ; and this is not surprising, as many years ago Mr. Thomas Laxton sent out some excellent varieties, which at that time were a great advance on those in existence. One of the best from this source sent out of recent years was the well-known Gradus. This was of the Marrow quality, with the earliness of the smaller kinds, which were hardier, so that with hardiness, earliness and quality combined the gain was immense. Now Mr. William Laxton is devoting much time to this work, and his newest introductions are very fine.

The Laxtonian—the result of crossing Gradus and William Hurst—has produced a very early Pea with the true Marrow flavour, a full pod and of delicious quality, dwarf and most prolific. Here may be seen the Hurst blood in earliness, with the Marrow quality of Gradus ; this should make a welcome market-garden Pea, as it is only 2 feet high and remarkably prolific, haulm strong, and the pods firmly packed with about ten Peas in each. I saw this variety sown in the first week in March, and good pods were ready in three months from the date of sowing. It may be said that it is difficult to get a better dwarf Pea than Gradus, but this is not so early as William Hurst. To get the quality of Gradus with the earliness of the smaller Peas will prove a great boon to both large and small growers. The

Thomas Laxton is something after the type of the Laxtonian, and growers may well ask Why multiply the varieties ? but the aim of Mr. William Laxton was to get an earlier pod with equal quality, and this has been obtained, as the newer form precedes the last-named ; it is much dwarfer—a great gain with early varieties. For a second crop to follow on an early one, Thomas Laxton is excellent ; indeed, it may be termed a good early Ne Plus Ultra. I now come to a very fine maincrop Pea, and one which interested me greatly, namely,

Laxton's Maincrop.—This new Pea claims Alderman as one parent and Sutton's Prizewinner as the other. Those who have grown the first-named—a splendid variety of Messrs. Laxton's introduced some years ago—and the grand Prizewinner—probably one of the best ever raised—will expect much from the new form. It is very fine, having the Alderman pod with the quality of Prizewinner. It grows 3 feet high and has a good habit of growth ; a very fine garden Pea, dwarfer than Alderman the quality is unsurpassed.

There are other new crosses this year of great interest, but those named will show that good work is being done. In all the early crosses Gradus is a favourite parent even now, and all the seedlings are grown so that the old forms can be compared, and improvement is soon noted. We do not want mere variety, but quality. We have pods large enough for all purposes when they are well filled. G. WYTHES.

A HOME OF SWEET PEAS.

A Day with Mr. W. J. Unwin.

EARLY in July last we had the pleasure of spending a most interesting and instructive day with Mr. W. J. Unwin, who, as most of our readers will know, is a Sweet Pea specialist of no mean order, and who raises his novelties and grows the bulk of his seed at the charming village of Histon, situated a few miles from Cambridge. Unfortunately, the weather was wet, but umbrellas and waterproofs were at hand, and by the aid of these we were enabled to inspect and admire the many beautiful and fragrant Sweet Peas that find a home at Histon.

Novelties naturally demanded our attention first, and before describing these we must just make a brief reference to the way in which these are brought into being and the pitfalls that beset the path of the inexperienced hybridist. Thus, if two fixed varieties are crossed, all the plants resulting directly from that cross should and will give flowers of one colour, and the novice may probably think he has secured something of more than usual merit. Let him, however, sow the seeds from these plants another year, and behold! a veritable mixture of colours is the result, the original colour of the first cross having, perhaps, disappeared, or if not it will appear only in small quantities. Two or three good novelties may appear, and providing they are of more than ordinary merit, the plants are tied up carefully to the supports and all others pulled up and discarded. Seed saved from plants thus selected may, the following year, be expected to produce plants that are true, and should more than 10 per cent. of rogues appear, the variety is discarded as useless, unless it is something very special indeed.

It may, perhaps, be of interest to give the first year's results of a few crosses that we saw at Histon. Thus Mrs. Unwin, a large orange-scarlet flake, × Mrs. Henry Bell gave a large, bright pink, flaked flower; Mrs. Unwin × Helen Pierce gave flowers nearly like those of Hannah Dale or Black Knight, all possessing plain standards, notwithstanding the fact that one parent was a waved variety; Mrs. Unwin × Clara Curtis produced America Spencer; Helen Pierce × Edna Unwin, which is a beautiful Spencer or waved form of Evelyn Byatt, gave maroon flowers; and Nancy Perkins × Unwin's Maroon produced flowers of a very rich chocolate colour.

To come now to the novelties, we noticed some very beautiful flowers that are being selected this year as the result of crosses made two years ago; but it is too early yet to describe these. Among others that we specially preferred were a set of Helen Pierce crosses, the flowers of these being veined in many colours, just the same as the parent variety is veined or marbled blue, the colours of the seedlings being placed on both white and cream grounds. Then there was a Helen Pierce Spencer in the course of fixing, and a most beautiful variety it is. A really good dark blue waved variety has long been sought for, and Mr. Unwin now has this in Lord Nelson Spencer, which is a waved form of the well-known rich blue variety. This is nearly fixed and will probably come quite true next year. Edna Unwin may best be described as a very much improved St. George; the flowers are larger, richer in colour, the plants more vigorous, and three or four blooms on a stem is the rule.

Gladys Burt is a lovely variety that may be regarded as a cream-ground Audrey Crier, and quite fixed. Gladys Burt is quite distinct from Mrs. Henry Bell and Constance Oliver, and is far and away better. Nor must we forget Mrs. W. J. Unwin, the beautiful waved orange and white flaked variety that obtained an award of merit in the National Sweet Pea Society's trials at Reading this year. We must confess that previous to seeing this we did not care for flaked varieties, but Mrs. Unwin will find a place in our garden next year. Eric Harvey is a beautiful new one for which Sweet Pea enthusiasts will have to wait a year or two. It is a very large white, waved flower with an edging of bright rose pink, the back of the standard being nearly entirely of this pink colour. We have never seen a prettier and more decorative variety than this when growing. As a garden Sweet Pea it will prove of great value and, owing to its size, will be excellent for exhibition purposes also. Arthur Unwin, a very large waved Jeannie Gordon, is another pretty variety that calls for mention. We might go on referring to novelties almost indefinitely would space permit, but we have mentioned enough to show that Sweet Pea raising is being carried out on a large scale at this Histon seed farm.

Among what may now be regarded as standard varieties we noticed some splendid stocks of Constance Oliver, Mrs. Henry Bell, Nancy Perkins, Clara Curtis (Mr. Unwin's strain of this received the only first-class certificate awarded in the official trials at Reading this year), Evelyn Hemus and many others, and evidently nothing is left undone that is likely in any way to benefit the vigour of the plants and the purity of the strains.

TREE WILLOWS.

I have had the happiness of seeing some beautiful woods of the world, apart from those of human planting, the colossal forests of North-Western America and the Cedars on the mountains of North Africa; but, much as I was impressed by those great trees, I now have the idea that from the point of view of beauty one could hardly do better than plant the Tree Willows. The movement of our native white Willow in the wind is one of the most graceful things, and latterly I have been looking at the red Willow just before parting with its silver robe of summer for the red attire of autumn. This Willow is beautiful in the tree form every month of the year, and in effect differs every month. Unhappily, these trees are rarely planted for the sake of their beauty, and when we see them it is from their own natural reproduction by the sides of rivers or lakes, and rarely from deliberate planting, yet in poor and marshy ground nothing can give us such good effect in colour throughout the year. Sometimes by rivers, where these trees group themselves, we see their true effect, but how many situations by lakes and pools are wholly wasted from this point of view. The facility of increasing Willows from cuttings is such that no attention is paid to raising them from seed, which may be very important; since, judging by the analogy of other things, cuttings never make such fine trees as we can get from seeds. And though the Willows grow free as grass from cuttings, what are to be desired are trees of great stature such as are seen occasionally in Germany, France and Britain, by the banks of rivers. Some people say they will not grow from seed; but Nature does not give seed to no purpose, and some kinds, like the common Withy, we see sowing themselves too freely for us. I have scattered seed of the white Willow in marsh fields, but owing to the "poaching" of cattle it was not a fair test, and we shall try again in boxes and in some way protect the seedlings from the encroachments of the common Withy, which is very apt to cover the ground. While the summer effects of the greater Willows are all we need wish for, the winter effect of the red Willow, and, indeed, all the larger Willows, is very remarkable. It is seen, perhaps, at its prettiest in the fine days of winter, and in Surrey, in the nursery region, the red Willows grown for tying and cut down every year to encourage fresh growth are very brilliant in effect; but that practice is not necessary in landscape planting, as the colour of the red Willow when allowed to take the tree form is also very good.

Willows are a great aid to the landscape planter. Some years ago I had to deal with a pond in which a retaining bank was so ugly and stiff that it was difficult to get rid of its awkwardness, until I took a bundle of white Willows and put them across the bank and round at the corners. After some years of this growth all the stiffness and ugliness has disappeared. The white Willow (Salix alba) is the queen of the tree Willows for our islands, and we see evidence of its beauty everywhere. There are one or more varieties of it with brighter colour, but they, like most varieties of forest trees, are distinctly inferior to it. It is a valuable timber tree, and people are now planting it for that reason; but here we are only concerned with the beauty of things, and we have rarely seen it planted for its effect. The effect of it in wind is as good as that of any Olive tree, and no tree is quite so useful for concealing awkward lines or banks, which, unfortunately, often occur near artificial water. It is a rapid grower, and saplings a few feet high will make good trees in fifteen to eighteen years; but to get its great dignity much more time would be needed. Like all Willows, it is usually planted from cuttings; I have often wished it were otherwise. Seed of it is offered by the great seed houses, and it should be raised in boxes or in some way screened from the seeds of other Willows, which abound in the air in some places. But however raised, it should be grouped and massed where possible, the effect of a group being much better than that of single trees, although singly it is very striking too. The Willows known as Bedford and Huntingdon are thought to be varieties or hybrids of this, and are worth planting for effect. But whether planted in woodland or in wet or marshy places or beside rivers, everywhere it helps us with its fine effect. The finest trees of it I have seen are by river banks, and I have often thought that those were seedling trees. Where planted within reach of browsing animals it is better to fence for a few years. For the landscape planter the white Willow may be used like a magician's wand to give fine effects in marsh or rich bottom land. It is fearless before the northern ocean winds, and nowhere better than in our cold eastern lands. There are various forms, and some wild ones that are interesting, such as cærulea, latifolia and viridis, and a few others described by Anderson and others, but probably few of them are in cultivation or obtainable in nurseries. Botanists, who have a point of view quite different from that of the planter, class the red Willow as a form of alba, and very likely in herbaria it looks so; but for our purpose the red Willow should have a distinct name. What is the good of names if they do not mark distinctions for us? and the red Willow is so distinct in colour and stature. There are hybrids of alba, with the Babylonian Willow and others, and all these would be worth planting by those who have suitable ground by river banks.

The Red or Yellow Willow (S. vitellina).—In most books on botany this is classed as a form of alba, but the two are quite distinct. The Willow vitellina by lake and rivers is a beautiful tree and more effective in winter than the white Willow or indeed any other. Its forms are equally precious from the planter's point of view, especially the scarlet form. Some eighteen years ago I planted a colony of it, and their beauty is striking at all times. It rapidly forms a tree over 40 feet high, even from the saplings we get in nurseries. The form called britzensis, which is so much used for tying, is very effective if cut down every year as in nurseries, for the sake of its strong and elastic shoots for tying, but the tree allowed to grow naturally is fine in colour. The old practice of using this tree for tying fruit trees to walls and many others suitable for ties in the garden should never have been given up, as it is

a better and prettier way than using tarred twine or anything of the kind. The amount of work this tree does in the nurseries of Europe is astonishing, and even for tying big crates and baskets it is better than strong wire. . . .

Weeping Yellow Willow.—There is a form of vitellina called vitellina pendula, which is a variety of the yellow or wild form, but more weeping in habit. It is a very elegant tree, and I have several plants of it, but not in the best conditions for it as regards soil. Some of them do very well, but some in a very hard spring seem a little touched with cold. It is a most valuable tree and worth planting. The twigs hang down like whipcord. To try it fairly it should be planted in Willow soil, *i.e.*, deep earth beside water.

The Crack Willow (S. fragilis).—This is not so fine in colour as the white Willow and attracts much less notice. It is very common, and by the banks of the Trent and other rivers there are often many picturesque old trees of it. . . . There are certain aspects of this Willow which are of great interest from the point of view of its usefulness.

Babylonian Willow (S. babylonica).—A very graceful form of the Babylonian Willow is S. ramulis aurea, one which is said to be the best of the drooping Willows.

S. blanda, S. Salamonii, S. elegantissimum and the black Willow (Salix nigra) are also named. These are all the Willows known to us with any claim to tree dignity. Let us hope that explorations in China and Manchuria will add to their number.—*Country Life.*

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

A DELIGHTFUL display of flowers was to be seen at the Royal Horticultural Society's meeting on Tuesday last, but owing to the wet weather there were few visitors. Hardy flowers, fruit and other seasonable displays filled the hall.

FLORAL COMMITTEE.

Present: Mr. W. Marshall (chairman), Messrs. William Bain, W. J. James, W. P. Thomson, J. T. Bennett-Poë, Charles E. Pearson, H. B. May, C. T. Druery, James Walker, J. Green, William Cuthbertson, G. Reuthe, J. F. McLeod, R. Hooper Pearson, A. Turner, R. W. Wallace, R. C. Reginald Nevill, W. A. Bilney, E. A. Bowles, J. Hudson, E. T. Cook, E. H. Jenkins, C. Blick, A. Kingsmill, J. W. Barr, George Paul and the Rev. F. Page-Roberts.

Messrs. James Veitch and Sons, Limited, Chelsea, brought a very interesting and beautiful lot of the recently introduced Vines from China, some sixty species and varieties being included in the exhibit. To a large number of these things a great value attaches, by reason of their adaptability for pergolas, arbours and similar structures, while not less important are some of them because of a brilliant colouring, which renders them in autumn-time absolutely unique. Of those whose vivid colouring at the moment command attention, we may instance Vitis henryana, Coignetiæ and Thunbergii, perhaps the most brilliant of all. Others distinct of leaf and growth are V. vinifera purpurea, V. armata, V. heterophylla striata (very neat), V. flexuosa Wilsoni (with shining, ovate, acutely pointed leaves of medium size), V. bipinnata, V. Romaneti (very handsome), V. glabra and V. citrulloides. The collection was grouped to a certain extent, and early plants with coloured leaves were in this way displayed side by side with younger examples still in the heyday of their beauty and greenery. Gold medal.

Messrs. Dobbie and Co., Rothesay, brought a bright and well-grown lot of the early-flowering Chrysanthemums, showing the value of these indispensable flowers in the early autumn border. Mme. Desgranges and its yellow sports, the rich yellow-flowered Polly, Horace Martin, Caledonia (white), Goacher's Crimson, Mrs. W. Sydenham (crimson), Nina Blick, Carrie and others were admirably displayed in large bunches. Silver medal.

Messrs. G. and A. Clark, Limited, Dover, brought a variety of good hardy plants in flower, the more conspicuous being Cimicifuga simplex, very fine, together with Rudbeckia Autumn Glory, Kniphofia gigantea, a most brilliant variety, together with Lobelias of the cardinalis and fulgens types, very finely flowered.

Mr. G. Reuthe, Keston, had a showy group of hardy cut flowers, among which the Michaelmas Daisies, Montbretias and varieties of Lilium auratum were seen to advantage.

The group of Roses from Messrs. William Paul and Son, Waltham Cross, was among the leading features of the how, and in its way constituted a negative to the oft-epeated inclemency of the year. The recently held utumn exhibition of the National Rose Society played its own part in the same direction, and here again have we had fforded the best possible proof of the value of the Rose s an autumn flower. Charming, delightful, exquisite; h ese are some of the phrases which one might reasonably mploy upon seeing so fine a lot, and the lesson cannot be given in vain. We do not intend to give a catalogue of names, though we may give a few for the benefit of our readers. Betty was seen in great form, while Earl of Warwick, Pharisaer, Margaret (a delightful pink), Mme. Ravary, Maurice de Luze, Joseph Hill, Prince de Bulgarie, Hugo Roller, Lyon Rose (an exquisite thing in colour and form), Mme. Antoine Mari, Le Progrès (a lovely coloured Rose) and Mme. Paul Varin-Bernier (a lovely apricot with exquisitely formed flowers) were among the best in a superb lot. Silver-gilt medal.

Messrs. Frank Cant and Co., Colchester, brought a glorious display of Roses, arranging them in vases in superb style. The Lyon Rose was one of the most remarkable, while Dorothy Page-Roberts, Betty, Mrs. Theodore Roosevelt, Le Progrès, Irish Elegance, Mme. Leon Pain (very fine), Ecarlate, Mme. Melanie Soupert, M. Paul Ledé (an exquisite flower) and Warrior were among the finest in a really grand lot. Silver-gilt Flora medal.

Messrs. W. Cutbush and Sons, Highgate, had an excellent exhibit of Carnations and hardy flowers, the former including all that is good in these plants, and the latter embracing the most seasonable of a very popular race, such as Phloxes, Michaelmas Daisies, Kniphofias, Potentilla Gibson's Scarlet, Pentstemons and other plants. The scarlet calyces of Physalis Franchetti were very finely displayed. Silver medal.

Messrs. H. B. May and Sons displayed an excellent group of hardy Ferns, particularly of the varieties of Polypodium vulgare, such excellent sorts as elegantissima and cambricum making a fine group in themselves. Veronicas in many good kinds, also Salvias and Bouvardias, were well shown. Silver medal.

Messrs. B. R. Cant and Sons, Colchester, brought a very fine lot of Roses, of which Ma Capucine, Mme. Charles, White Killarney, Lady Waterlow, Lady Reay (pink), Gottfried Keller (single yellow) and Irish Elegance were very charming. The new seedling Claudius (bright glowing rose) was also well shown, and in addition to its fine colour the variety is remarkably sweet-scented. It appears quite an acquisition. Silver medal.

Mr. Clarence Elliott, Six Hills Nursery, Stevenage, brought Michaelmas Daisies and other good hardy flowers. Anemones, Arundos, Phygelius capensis and Coreopsis rosea, a very pretty plant, were also shown.

Messrs. H. J. Jones, Limited, Lewisham, brought a very select lot of Michaelmas Daisies, arranging them with excellent taste on a white ground. There were many fine varieties, but we take the following as the most distinct: Hilda Morris, light blue, 4 feet; Mrs. Day, pink, 3 feet; Finchley, white, large, 3 feet, very fine; Decima, white, medium sized, elegant in spray; Mrs. S. T. Wright, rose magenta; Lil Fardell, rose, very fine; Mrs. Frank Brazier, mid-blue; and Mrs. Twinan and Mrs. Huson Morris representing the early and late pink-flowered forms. Silver Flora medal.

Mr. L. R. Russell, Richmond, had a capital display of Clematises in baskets, and in another direction the firm also set up a very interesting series of hardy Heaths.

Messrs. J. Cheal and Sons, Crawley, brought a very fine exhibit of Cactus and Pompon Cactus Dahlias, together with Pompon and many delightful single-flowered varieties. Silver Banksian medal.

Phloxes, Pentstemons, early-flowering Chrysanthemums, Michaelmas Daisies and the like were very finely shown by Messrs. William Wells and Co., Merstham, Surrey, the Phloxes being particularly fine. Silver Banksian medal.

Messrs. Gunn and Sons, Olton, near Birmingham, brought an admirable lot of Viola cornuta atropurpurea, which, with the white and pale mauve blue varieties, made a singularly effective group.

Messrs. T. S. Ware, Limited, Feltham, brought a very fine exhibit of Dahlias, arranging them with skill and judgment. The several sections of the flowers were seen to advantage.

Mr. Charles Turner, Slough, brought a very interesting exhibit of Cactus, Pæony-flowered, Pompon, show and fancy Dahlias, arranging them admirably in their respective sections. The yellow Pæony-flowered Dahlia Geisha was a conspicuous feature of the group, and with its petals coloured crimson at their bases attracted much attention. Some superbly coloured seedlings also of this type were well shown. Silver Flora medal.

Mr. W. Leggett, Colchester, brought a delightful group of Roses, the vases of Mme. Leon Pain, Bessie Brown, Countess of Caledon and Hugh Dickson being particularly fine.

Mr. W. Treseder, Cardiff, also displayed Roses in a delightfully fresh manner, many of the flowers being of a high standard of exhibition excellence. Mr. Treseder also displayed an admirable lot of Dahlias, chiefly, however, of the Cactus-flowered forms. Silver-gilt Banksian medal.

Messrs. Stredwick and Son, St. Leonards, staged Cactus Dahlias in their own inimitable way, the numerous varieties representing the highest perfection yet seen in these flowers.

Messrs. Barr and Sons, Covent Garden, had a display of hardy flowers, in which Gladioli, Kniphofias, Montbretias and Michaelmas Daisies were seen. The earliest of the autumn Crocuses and the white-flowered form of Colchicum speciosum, together with Vallota purpurea, were all well shown.

From Colchester Messrs. Wallace and Co. brought an excellent group of hardy flowers, of which the Montbretias, Kniphofias and the Amellus section of the Michaelmas Daisies were noteworthy items. Pentstemon Myddleton Gem, the hybrids of Gladiolus primulinus and the white and coloured Colchicum speciosum, C. s. album, C. Bornmülleri and C. giganteum were all well shown.

Messrs. Garraway, Durdham Down, Bristol, exhibited their Tea Rose Teresa Bevan, which is very charming in salmon and deepest apricot.

Messrs. J. Burrell and Co., Cambridge, brought a very fine display of seedling Gladioli, the strain representing a great variety of colour in these plants. The firm also brought an excellent lot of Roses and Dahlias, each in great variety and much beauty. Silver-gilt Banksian medal.

Messrs. Backhouse and Son, York, brought autumn Croci and the lovely Colchicum speciosum and its pure white variety, the last-named one of the most valuable autumn-flowering plants of recent years.

Messrs. Carter Page and Co., London Wall, filled a full-length table with Dahlias, chiefly of the Cactus-flowered section, a smaller gathering of single and Pæony-flowered varieties being also staged. The group was finely arranged and of a most representative character. Silver medal.

Mr. Frank Brazier, Caterham, had an excellent display of Phloxes, Michaelmas Daisies and early flowering Chrysanthemums, the group being well arranged and the flowers of good quality.

Mr. J. T. West, Brentwood, had a capital exhibit of Cactus and Pompon Dahlias, many excellent varieties being noticed in a very fine lot. Silver Banksian medal.

Messrs. Paul and Sons, Cheshunt, brought a very fine lot of trees and shrubs, some in pots and others in the cut state, the very complete collection of these affording much interest and attraction to the large number of visitors, Hydrangeas, Yuccas, Rubus laciniatus, Euonymus latifolius and other things being prominent. Silver-gilt Flora medal.

Messrs. McGredy and Son, Portadown, Ireland, had a lovely lot of Roses in the entrance hall, of which Mrs. Arthur E. Coxhead, Lucy Williams (shell pink), Mrs. Amy Hammond (flesh), Countess of Gosford (pink) and Olive Plews were delightful varieties. Silver Flora medal.

Mr. G. Lange, Hampton, exhibited a good pink-flowered Carnation named May Day, which is very charming.

A magnificent specimen plant of Platycerium Alcicorne came from Miss S. G. Abethall, Colney Hatch Lane, Muswell Hill, N. (gardener, Mr. Cooper).

Roses were shown by the Rev. L. Chalmers-Hunt, Hitchin; and the Misses Hopkins, Shepperton-on-Thames, displayed hardy flowers.

Mr. Seale, Sevenoaks, had a remarkable table of Dahlias, in which all sections of the flower were admirably represented. The arrangement, too, was excellent, and gave an idea of the artistic merit and value of these things. Silver Flora medal.

*** *Owing to the demand made on our space we are compelled to hold over the reports of the Orchid and Fruit and Vegetable Committees until next week.*

SHEFFIELD CHRYSANTHEMUM SOCIETY.

THIS society held its special show in the Corn Exchange on Friday and Saturday, the 17th and 18th ult, the exhibition being the result of a desire to introduce classes for early-flowering Chrysanthemums and other flowers that cannot be arranged for at the usual November show. The schedule contained eighteen classes (two being open). Upwards of 100 exhibits were staged, and from an exhibition point of view fully justified the committee's efforts, although the attendance was not all that could be desired. The trade exhibits were of an exceptionally high character, in the opinion of many exceeding any previous exhibition they had seen staged in Sheffield.

Messrs. W. Artindale and Son were awarded a large gold medal for a very fine and extensive exhibit covering 500 square feet and comprising choice hybrid Gladioli, early-flowering Chrysanthemums, Dahlias, Liliums and other flowers. Messrs. Seagrave and Co. were awarded a gold medal for a fine stand of early-flowering Chrysanthemums, Dahlias and plants. Messrs. Sutton and Sons, Reading, were awarded a gold medal for a fine and attractive stand of flowers, fruit and vegetables; this exhibit was very much admired, both for the fine specimens displayed and for the pleasing way in which they were arranged.

Messrs. Dobbie and Co., Rothesay, had a fine exhibit of Dahlias and Chrysanthemums, with an additional stand of Potatoes. Gold medal. Messrs. R. Proctor and Son, Chesterfield, staged a fine stand of cut Roses comprising over 100 varieties. This exhibit was greatly admired and gave pleasure to all who saw it. Gold medal. Messrs. Pennell and Son, Lincoln, were awarded a bronze medal for Dahlias, Gladioli, &c. The classes for flowers were well contested.

SANDHURST, YATELEY AND DISTRICT GARDENERS' ASSOCIATION.

THE first meeting of the new session of this association was held in the Church Schools, Sandhurst, on Tuesday, September 21. Mr. L. Dupond, the newly elected chairman, presided over a moderate attendance of members. Instead of the usual paper, two competitions were arranged. The first was for under-gardeners, and was for the best-arranged vase of flowers; six competed, and some excellent arrangements were produced. The first-prize winner was Mr. H. Rodgers; second, Mr. C. Ritchings; third, Mr. C. Binfield; all were of Sandhurst Lodge Gardens. The second competition was open to all the members, and was for the best-arranged bowl of flowers. Here again some splendid examples were shown. Mr. C. Binfield was adjudged the winner, Mr. H. Cooper being second (both of Sandhurst Lodge Gardens), and Mr. W. H. Chapman, The Gardens, Hilfield, Yateley, third. The judges were Messrs. W. Townsend, C. W. Goddard and T. Britnell. The flowers used were single Dahlias and Asters, with foliage and grasses, and were supplied by Mr. W. J. Townsend, Mr. M. Goddard and Mr. W. H. Chapman, a vote of thanks being accorded them and also to the judges for their services.

HYBRID TEA ROSE
MARQUISE DE SINETY.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

FAMOUS ROSE-RAISERS IN THE BRITISH ISLES.

PROBABLY at no period of its history has the Rose enjoyed greater popularity than in the present day, and we regard this as a fitting time to review the labours of raisers in the British Isles.

About fifty years have elapsed since the late Mr. William Paul introduced Beauty of Waltham, and to-day this fragrant Rose is highly esteemed. Mr. Paul was a raiser of Roses when many of those who now carry on the work were in their infancy, and one must admire the broad view that was taken of the Rose. Mr. Paul did not regard the flower as for the exhibitor only—although his many productions, such as Medea, Boadicea, Sylph, Pride of Waltham, White Lady, Earl of Warwick and Dr. William Gordon are found in nearly every winning box—but also for the garden.

From Waltham Cross have come such gems as Sulphurea, Corallina, Warrior, Enchantress, Morning Glow, Hugo Roller and Mrs. Isabelle Milner; and among the Hybrid Teas we have White Lady, Tennyson and Earl of Warwick, the latter only at the last show of the National Rose Society securing the silver medal as the best Hybrid Tea, both in the professional as well as in the amateur classes. Attention was also turned to the rambler Roses, some of the results being Waltham Climbers, Waltham Rambler, Waltham Bride and Pink Rover.

In Mr. Arthur William Paul the father has left a worthy successor, who has produced such fine novelties as Margaret, Cynthea, Beatrice, Refulgence, Fairy and, last but not least, Juliet, a cross from Soleil d'Or, and one of the most beautiful in the world of Roses.

No rosarian will deny that the chief honour of practically originating the popular Hybrid Tea class belongs to the late Henry Bennett, who has told us he was much interested in a lecture, delivered in 1869, by the late Mr. William Paul before the Manchester Horticultural Congress on the "Improvement of Plants by Selection, Hybridising and Cross-breeding, having special reference to the Hollyhock and the Rose." We think Mr. Bennett made an error in veiling with comparative secrecy his method of cross-breeding; it has been abundantly proved since that there is nothing in the process of cross-fertilising the Rose that was not known to other flower hybridisers.

On page 491 is given an illustration of one of Mr. Bennett's cross-fertilised pot plants, upon which may be seen the ripening fruit. The first set of Mr. Bennett's introductions were not remarkable, and few, if any, are grown to-day; but in 1882 he produced a Rose from which subsequent raisers, both at home and abroad, have reaped a rich harvest of novelties, directly and indirectly. We refer to Lady Mary Fitzwilliam. This same year there appeared from Mr. Bennett, Princess of Wales, Tea-scented; Countess of Pembroke, Hybrid Tea; Distinction, Hybrid Tea; Earl of Pembroke, Hybrid Perpetual; and Heinrich Schultheis, Hybrid Perpetual.

In 1884 Mrs. George Dickson appeared, a Rose remarkable for its mildew-proof character, and Grace Darling, which, strangely enough, Mr. Bennett described as a Tea Rose, but which is, perhaps, a more pronounced Hybrid Tea than any of his other productions. Two years later followed Viscountess Folkestone, also described as a Tea-scented variety; W. F. Bennett, one of the most fragrant Roses in existence; and that stately Rose aptly named Her Majesty. In 1887 Princess Beatrice, Tea-scented, appeared, and the same year Mrs. John Laing and The Meteor. How proud the veteran must have been of his Mrs. John Laing, a Rose almost without a fault! In the words of the Rev. Foster-Melliar, "It is everybody's Rose, with, perhaps, fewer imperfections than any other."

Most worthy successors were found in Messrs. Alexander Dickson and Sons, Newtownards, Ireland. Before the close of Mr. Bennett's career they had begun cross-fertilising the Rose, and introduced in 1887 Earl of Dufferin and Ethel Brownlow, and in 1891 Margaret Dickson and Mildred Grant. Then followed in succession such sorts as Marchioness of Londonderry, Mrs. R. G. Sharman Crawford, Mrs. W. J. Grant, Killarney, Bessie Brown, Ulster, Liberty, Mamie, Dean Hole, Betty, Charles J. Grahame, Countess of Annesley, Countess of Derby, Irish Elegance, Lena, Mrs. Myles Kennedy, Mrs. Peter Blair, William Shean, Elizabeth Barnes, Harry Kirk, Souvenir of Stella Gray, Mrs. D. Jardine, George C. Waud, Molly Sharman Crawford, John Cuff, Grace Molyneux, Walter Speed, Duchess of Wellington and many others; in fact, Messrs. Dickson have put into commerce as many as 110 varieties and obtained thirty-one gold medals for seedling Roses, thus establishing a record which they seem likely to retain for many a year.

Mr. Alexander Dickson had an excellent tuition, doubtless from his father, Mr. George Dickson, a great breeder of stock, and he has been ably assisted by his brother, Mr. George Dickson, jun. This firm has produced more exhibition Roses than any other, and it was surely a triumph for them this season when they won the trophy of the year with seventy-two varieties, half of which were their own raising.

The firm of Paul and Son, Cheshunt, has given a splendid contribution to our collection of British-raised Roses. Starting with Cheshunt Hybrid, which was probably the first British-raised Hybrid Tea, Mr. George Paul produced such lovely sorts as Sultan of Zanzibar, Reynolds Hole, Duke of Connaught, and Rev. Alan Cheales. Mr. Paul has always shown an intense love for the true garden Roses, especially those of bushy growth; and what garden is there where his Carmine Pillar is not found, or Dawn, Mrs. Paul, rugosa repens alba, rugosa atropurpurea, rugosa Rose Apple and Paul's Single White Climber? And the species of Rose have received much attention. It is always interesting in Rose-time to visit Cheshunt and study the wild Roses from other countries that have been collected there. Of late years Mr. George Paul has had the assistance of his talented son, Mr. George Laing Paul, who has taken up the cross-fertilising work with energy and originality in his aims and achievements. His latest triumphs are a set of seedlings from Tea Roses crossed with wichuraianas, which impart to them a creeping growth with the perpetual flowering habit and similar bloom of the Tea Rose. We consider these an invaluable break, and it may be the forerunner of many other distinct crosses. To Mr. George Laing Paul we owe the raising of Una, one of the loveliest of Briar Roses; Tea Rambler, Psyche, The Lion, The Wallflower, Goldfinch, Shower of Gold, Ariel, Buttercup; and among Teas and Hybrid Teas, Lady Battersea, Paula, Nellie Johnstone, &c.

Mr. Hugh Dickson of Belfast has been a most successful raiser for the time he has been engaged in the work. His Hugh Dickson is acknowledged to be so far the best crimson Rose, and the other introductions are of a very high standard of excellence. This season Mr. Dickson has gained four gold medals for new Roses. Probably no Rose of recent years has been more admired than Lady Pirrie, which will have, undoubtedly, a great future. We give in another place a list of the principal varieties introduced by raisers in the British Isles; but we may, perhaps, mention here the following, which Mr. Hugh Dickson has sent out, namely, J. B. Clark, Mrs. Stewart Clark, Mrs. Kirker, Miss Cynthia Forde, Simplicity, Countess of Shaftesbury and Leslie Holland, all of them having received gold medals of the National Rose Society.

Messrs. James Veitch and Sons, Chelsea, have contributed to the list of beautiful new Roses. Who will forget the display made with Queen Alexandra and Electra, two delightful ramblers! and they have introduced several famous species such as Rosa Hugonis and R. lucida plena, also the Hybrid Tea Duchess of Edinburgh.

Comparatively recent raisers, but nevertheless most successful, are Messrs. S. McGredy and Son, Portadown, Ireland. We are likely to hear much of this firm as raisers in the future, for they have a lovely strain of their own. Countess of Gosford was their first introduction. Others of their raising are His Majesty, Lady A. Stanley, Mrs. A. Tate, Mrs. E. J. Holland, Mrs. Wakefield Christie Miller, Mrs. M. Linton, Ethel Malcolm, Earl of Gosford and F. W. Moore.

Messrs. B. R. Cant and Sons, Colchester, gave us two most welcome ramblers in Blush Rambler and White Dorothy, and a superb Rose is Ben Cant when "caught right." Mrs. B. R. Cant, Maharajah and Nance Christy are excellent garden Roses, while exhibitors speak well of Claudius, the latest achievement of Messrs. B. R. Cant and Sons, which gained a gold medal at the autumn show of the National Rose Society this year.

If Messrs. Frank Cant of Colchester had only raised the Tea Rose Lady Roberts their name would have gone down to posterity. It is exquisite in form and in colouring, which is apricot and white, a flower that when once seen lives in one's memory. The writer was one of the first to see this Rose, and a coloured plate of it, by the late H. G. Moon, has been given in The Garden. Nor need we forget the other sorts raised in the Braiswick Nursery, Muriel and Mrs. Frank Cant, two Roses of great merit.

Messrs. S. Bide and Sons of Farnham raised Queen of Spain, which is a grand Rose for a hot season, but this year it has not been so well shown as it was when introduced. Mrs. Sophia Neate will, we believe, prove a valuable addition.

The late Mr. Harry Turner inherited the floricultural instinct of his renowned father, Mr. Charles Turner, and it was a proud moment for him when Her late Majesty Queen Victoria inspected at Slough the grand masses of Crimson Rambler, which he put into commerce. Probably no Rose, not even Maréchal Niel, created a greater sensation, and the firm contrasted most tastefully the somewhat garish colour of Crimson Rambler with a line of white Azaleas or some similar plant. Other Roses raised by this firm were Edith Turner, and they also introduced some raised by the late Mr. Thomas Laxton. Of recent years they have turned their attention to the raising of seedlings of the Old Red Damask and Rosa macrantha, and some exquisite gems have been the result.

Messrs. H. Merryweather and Sons of Southwell have given us a most useful Rose in Jessie.

Mr. G. Prince of Oxford, most famous of rosarians, has raised delightful sorts—Clara Watson, for example.

Hitherto we have confined our remarks to the efforts of professional growers, but there are a few amateurs to whom Rose-growers are under a debt of gratitude for their beautiful productions. Perhaps foremost, because a distinct line was marked out, was the late Lord Penzance. He demonstrated what it was possible to achieve when the raiser was filled with a real love of the Rose and a thorough knowledge of the flower, for he has left behind imperishable examples in his Hybrid Sweet Briars.

A very successful amateur was R. B. Postans, Esq., of Brentwood. We are not aware that he cross-fertilised his Roses; if not, he had some remarkable successes from promiscuous seed-sowing, for Duchess of Bedford, Countess of Rosebery, Lady Sheffield, Red Gauntlet and others were the fruits of his labour.

The late Thomas Laxton of Bedford is probably more remembered as a successful raiser of culinary Peas and Strawberries; but he raised the Rose Charles Darwin, a variety grown even to-day, also Dr. Hogg, Mrs. Harry Turner, Mrs. Laxton, Prince of Wales, Marchioness of Exeter, Annie Laxton and Mrs. Laxton.

Another amateur who, happily, is now with us, namely, Dr. J. Campbell Hall, has been most successful in raising a gold medal variety, Mrs. Campbell Hall. He also raised Lady Rossmore and Sheila Wilson, the latter a charming variety after the style of Carmine Pillar. Mr. Hill Gray, one of the most earnest of rosarians, raised the exquisite Alister Stella Gray.

It will thus be seen that Great Britain is well to the front in the matter of Rose-raising, and we welcome the friendly rivalry among the various raisers, believing it will lead to even greater triumphs. We also venture to express a desire that they may ever keep in mind the valuable attribute of fragrance, without which the Rose loses much of its charm.

The List.

Agate, Wich. T., Paul and Son.
A. H. Gray, T., A. Dickson and Sons.
Albatross, H.T., W. Paul and Son.
Alice Grahame, H.T., A. Dickson and Sons.
Alice Lindsell, H.T., A. Dickson and Sons.
Alister Stella Gray, Nois., A. H. Gray.
Althea, H.T., W. Paul and Son.
Amber, Wich. T., Paul and Son.
American Pillar, Hybrid, Cannell.
Amy Robsart, Briar, Lord Penzance.
Anne of Geierstein, Briar, Lord Penzance.
Annie Laxton, H.P., Laxton.
Ards Pillar, H.T., A. Dickson and Sons.
Ards Rambler, H.T., A. Dickson and Sons.
Ards Rover, H.P., A. Dickson and Sons.
Arethusa, China, W. Paul and Son.
Ariel, Hybrid, Paul and Son.
Atropurpurea, Rug., Paul and Son.
Aurora, H.T., W. Paul and Son.
Avoca, H.T., A. Dickson and Sons.
Beatrice, H.T., W. Paul and Son.
Beauty of Waltham, H.P., W. Paul and Son.
Bellefleur, Single, Prince.
Ben Cant, H.P., B. R. Cant and Sons.
Beryl, T., A. Dickson and Sons.
Bessie Brown, H.T., A. Dickson and Sons.
Bessie Johnson, H.P., Curtis.
Betty, H.T., A. Dickson and Sons.
Black Prince, H.P., W. Paul and Son.
Blush Rambler, Mult., B. R. Cant and Sons.
Boadicea, T., W. Paul and Son.
Bob Davison, H.P., A. Dickson and Sons.
Brenda, Briar, Lord Penzance.
Brightness of Cheshunt, H.P., Paul and Son.
Brilliant, H.P., W. Paul and Son.
Buttercup, Mult., W. Paul and Son.
Captain Hayward, H.P., Bennett.
Carmine Pillar, Single, Paul and Son.
Caroline d'Arden, H.P., A. Dickson and Sons.
Catherine Seyton, Briar, Lord Penzance.
Celia, H.T., W. Paul and Son.
Charles Darwin, H.P., Laxton.
Charles Gater, H.P., Paul and Son.
Charles J. Grahame, H.T., A. Dickson and Sons.
Charles Lamb, H.P., W. Paul and Son.
Charm, Wich., Spooner.
Cherry Ripe, H.T., Paul and Son.
Cheshunt Hybrid, H.T., Paul and Son.
Cheshunt Scarlet, H.P., Paul and Son.
Chin-Chin, China, Hobbies.
Christian Curle, Wich., Cocker.
Clara Watson, H.T., Prince.
Claudius, H.T., B. R. Cant and Sons.
Cleopatra, T., Bennett.
Climbing Belle Siebrecht, H.T., W. Paul and Son.
Climbing Bessie Johnson, H.P., Paul and Son.
Climbing Captain Hayward, H.P., Paul and Son.
Climbing Devoniensis, T., Curtis.
Climbing Frau Karl Druschki, H.P., Lawrenson.
Climbing Jules Margottin, H.P., Cranston.
Climbing Kaiserin Augusta, H.T., A. Dickson and Sons.
Climbing Lady Ashtown, H.T., Bentley.
Climbing Lady Moyra Beauclere, H.T., Paul and Son.
Climbing Liberty, H.T., May.
Climbing Mlle. Eugénie Verdier, H.P., Paul and Son.
Climbing Niphetos, T., Keynes.
Climbing Pride of Waltham, H.P., Paul and Son.
Climbing Victor Verdier, H.P., Paul and Son.
Clio, H.P., W. Paul and Son.
Colonel R. S. Williamson, H.T., A. Dickson and Sons.
Corallina, T., W. Paul and Son.
Corinna, T., W. Paul and Son.
Corona, H.T., W. Paul and Son.
Countess Cairns, H.T., W. Paul and Son.
Countess of Annesley, H. T., A. Dickson and Sons.
Countess of Caledon, H.T., A. Dickson and Sons.
Countess of Derby, H.T., A. Dickson and Sons.
Countess of Gosford, H.T., McGredy.
Countess of Rosebery, H.P., Postans.
Countess of Shaftesbury, H.T., H. Dickson.
Crimson Bedder, H.P., Cranston.
Crimson Crown, H.T., A. Dickson and Sons.
Crimson Damask, —, Turner.
Crimson Globe, Moss, W. Paul and Son.
Crimson Queen, H.P., W. Paul and Son.
Crimson Rambler, Mult., Turner.
Crown Prince, H.P., W. Paul and Son.
Cynthia, H.T., N. W. Paul and Son.

(*To be continued.*)

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

October 12.—Royal Horticultural Society's Meeting of the Committees, 12 noon. Horticultural Club, H. Inigo Triggs, F.R.I.B.A., on "Italian Gardens," illustrated with lantern slides.

The late Mr. Peter Barr.—Having enjoyed the acquaintance of the late Mr. Peter Barr for forty years, may I suggest that the

POT ROSE WITH HYBRIDISED SEED-PODS.
(See page 489.)

memory of a man so remarkable should be fittingly perpetuated. Moreover, if this could be done in a way by which great permanent good might accrue, without appreciable sacrifice by those sharing in it, would it not be worth the doing? Assuming there would be a large measure of concurrence on those points, in what way could the object be realised? This leads to a definite proposition, and not the less worthy of consideration as being based on Mr. Barr's own efforts in the realisation of an object which all believe to be good. The fact cannot in the nature of things be known to all, or even half, the readers of these lines; but a fact it assuredly is, that Mr. Barr's name stands first on the list of the first committee of the Royal Gardeners' Orphan Fund, which he assisted in establishing, and only those who acted with him, including the present writer (in 1887), can know how zealously our deceased friend worked for the accomplishment of that object. Would it not, therefore, be especially appropriate if, by a large number of small gifts, an adequate sum were secured to endow a memorial in perpetuity in connexion with that beneficent charity, and thus commemorate—in a way we know he would have rejoiced in—the honoured name of Peter Barr?—J. Wright, V.M.H., *8, Rosehill Road, Wandsworth, S.W.*

National Vegetable Society.—A committee meeting of the above society was held on the 28th ult. at the Hotel Windsor, Westminster, many members being present, among them Mr. A. Dean, V.M.H. (chairman), G. Wythes, V.M.H. (treasurer), and E. J. Quick (secretary). Several new vice-presidents and members were elected, and correspondence dealt with concerning the work of the society. The important question of holding a show next autumn was fully discussed, and it was arranged to hold an exhibition of vegetables if the members will cordially support the committee, and next spring it is hoped to publish the results of the trials of early Cabbages, of which due notice will be given to members. The treasurer gave the number of new members, and it was also decided that the financial year should end next Michaelmas. The society is now in full working order and must have the support of those interested in this important branch of horticulture. The secretary will be pleased to forward rules and particulars on application to the following address: Kelmscott, Harrow View, Wealdstone, Harrow. Various matters were considered and others deferred until the next meeting.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Raiser of Rose Ecarlate.—Being a constant reader of The Garden, I notice that Rose Ecarlate is coming into favour. As a bedding plant it is hard to beat, being continually in bloom, and the brilliant colour is very effective. Some give as a supposed parent Marquise de Salisbury, Camoens, &c.; they are not far wrong. As the raiser of it, I can say that the seed parent is Camoens, probably fertilised with General Jacqueminot or Eugène Fürst, which were close by at the same time.—E. B.

Rose Crimson Rambler.—The illustration shows the Crimson Rambler over arches in the garden of Mr. F. M. Phillips, Wrotham Park Hill, Wrotham; the effect of the crimson colouring is very fine among the surrounding foliage.

Dressing Rose blooms. In reference to "D.'s" letter on "Dressing Rose Blooms," I should like to point out that Rule 7 in the regulations for exhibitions published in the National Rose Society's Arrangements for 1909 says, "The dressing of Rose blooms so as to alter their character is prohibited. A bloom so dressed will be counted as a bad bloom." Also, Mr. E. B. Lindsell, writing in the Rose Annual for 1909 of the 1908 autumn show, says, "Messrs. Cocker repeated their victory, but the result might possibly have been different had not the second prize Roses suffered greatly from improper manipulation, an expression, to my mind, more applicable than over dressing. It is not a question that gives much trouble to judges in these days, but on the occasion in question they had no option but to regretfully pass over no less than five blooms as bad which, if properly treated, should have scored heavily." It would appear from this that the National Rose Society does discourage the dressing of Rose blooms, and that probably some of the blooms described by "D." were counted as *bad* blooms.—E. W. Morris, *Uckfield.* [The dressing of Rose blooms is not countenanced by either the National Rose or the Royal Horticultural Societies. At a recent meeting of the floral committee of the last-mentioned body, on the proposition of Mr. J. Hudson and seconded by the Rev. F. Page-Roberts, president of the National Rose Society, it was resolved not to give awards to any Rose that had been manipulated in any way. This is, of course, sound commonsense.—Ed.]

Rose Chateau de Clos Vougeot.—I am reading with a good deal of interest Mr. Molyneux's descriptions and experiences of some of the newer Roses, and as far as I have grown the varieties enumerated they coincide with my own with one exception. He deplores the fact that with him Château de Clos Vougeot is not a good grower. I should describe it as a rampant grower, as with me it breaks freely from the base, the shoots attaining an average length of about 18 inches. The stems are very straight and sturdy, and the foliage a deep green of leathery texture and absolutely mildew-proof. A peculiarity of this variety is the fact that most of the shoots grow at an angle of about 45° with the base, which gives the plant a dwarf, spreading habit and makes it eminently suitable for bedding. The blooms are certainly not up to exhibition form or size, but the colour is splendid and maintained in all weathers, while the fully expanded flower resembles a Pæony and retains its petals for a long time.—B. W. Price, *Podsmead Road, Gloucester.*

A large Vegetable Marrow.—A correspondent ("E. D. F.") wishes to know what we think of a Vegetable Marrow growing in his garden; it is 3 feet 10 inches long, 2 feet in circumference, and is still growing. It must be an extraordinary specimen of most abnormal proportions, and certainly such as we have not seen or heard of before.

Lilium nepalense at Ambleside. It may interest some of your readers to know that Lilium nepalense is in flower here (North-East Lancashire, close to Westmorland) now (September 24). It has been open some days. I find that it does quite successfully if it is taken up directly it has flowered and put into a box (not pot) and kept through the winter in a frame. It is so handsome that it is worth a little trouble. It seems to be quite hardy, but this treatment makes it flower a little earlier and so saves the flowers from early frosts. The reason for putting it in a box is that its roots start quite horizontally from the bulb. I do not know under what conditions it grows wild, but the appearance of the roots suggests a forest Lily growing in shallow, rich leaf-soil.—A. M., *Skelcith.*

CRIMSON RAMBLER ROSES OVER ARCHES.

THE FLOWER GARDEN.

SWEET PEA CHAT.

AUTUMN SOWING. — Just how many discussions there have been as to the desirability, or otherwise, of sowing seeds in the autumn instead of in the spring I should be very sorry to say. There are numbers of excellent growers who staunchly maintain that the advantages which may accrue are more than outbalanced by the disadvantages; while others who achieve equally gratifying results affirm no less forcibly that autumn sowing is the only system which will bring complete satisfaction. Then there is a third class which sits comfortably on the fence, agrees with both parties and proceeds in its own sweet way to practise both methods. I belong to the latter group.

The advantages that follow upon autumn sowing may be said to principally consist of earlier flowering and a richer colour springing from the increased substance, which is doubtless due to the superior rooting system developed early in the season by the autumn-sown in comparison with the spring-sown plant. The disadvantages lie in the fact that birds, mice and slugs will devour the seeds or the plants if they get the chance, and in their depredations there is a wonderful fatality, since they always fasten upon the varieties that are scarce and expensive and which it is often difficult and sometimes impossible to replace later in the year. To the troubles that are said to be inevitable to the autumn sower some people would possibly add the weather; but I am personally of the opinion that this need not cause the slightest worry, for well-grown, hard plants will stand through the vast majority of our winters without suffering anything more serious than a little check, and this it is difficult to avoid by all growers who sow in pots, no matter at what period of the year the operation may be carried out. Assuredly the man who works diligently on his own account and so closely observes the results that he can come to a definite conclusion as to which system gives him the more favourable results is wise, and he should not allow anyone to persuade him to alter his tactics, at least in more than a purely tentative and experimental way.

A further point in the same relation that has been more or less vigorously argued is whether the seeds should be sown indoors in pots or out of doors in the positions where it is desired that the plants shall bloom. Here again the controlling factor should be the individual grower's personal requirements. If he merely desires to have a row of plants that will produce flowers in advance of any sown in the spring, then let the seeds be distributed rather more thickly than is customary and risk the weather and the natural pests; but should exhibition blooms be the objective, then under-glass sowing ought always to be given the preference.

Still further germane questions are at what time or times the seeds should be sown either out of doors or in frames. As far as the first point is concerned, the grower must be governed largely, if not entirely, by the soil and climate of the garden. In an exceedingly cold soil it is probable that September will give the finest results; in a loam or a light clay October may be preferred; while in a warm sand November brings complete satisfaction, provided, of course, in all instances that natural enemies are not permitted to ruin all prospects. In the event of pot sowing being decided upon, then it is not easy to find a more generally suitable time than from the middle to the end of October; but the grower should clearly understand that it is immaterial to a day, or even a week, when the seed-sowing is actually done. To fix upon a hard-and-fast date, either for indoor or outdoor work, is an error, for one should obviously be guided partially by the weather, partially by one's own convenience, and partially by the time when it is possible to procure the new seeds.

In our next "Chat" the precise methods of sowing both in frames and in the open garden will be considered, and these will be published in plenty of time for those to adopt the recommendations that will be made if they deem it wise or advantageous to do so. Meantime they can thoroughly dig their ground and wash all pots until they are scupulously clean, so as to be in readiness for the fray. Incidentally, they can also worry the specialist for their seeds.

SPENCER.

THE BEGINNER IN ROSE EXHIBITING.

AT what point can a Rose exhibitor be said to begin? Does he begin in public, or is his first venture at a show the outcome of a previous affection for Roses? Is it not the case that a love of Roses in the garden is the prelude to exhibiting? For the purpose of these notes let us accept the term "beginner" as indicating one who makes his first appearance at a show. Where can he best be studied? Not, surely, at an exhibition of the National Rose Society, but at the local show. At the Metropolitan exhibition the National Rose Society provides novice classes for those who have joined the society during the last twelve months, for those who have never won a prize, and for those who have never won a first prize. But the great majority of exhibitors who compete in these classes seemed to have served their novitiate elsewhere; they come to the show with all the newest outfit of boxes, tubes and supports, and apparently possessing a knowledge of a good Rose, together with an advanced method of staging. One can hardly regard them as beginners; they seem such practised hands. No; we must go to the local show if we wish to see the real beginner.

At the local show the beginner arrives somewhat late, when the sun is well up and it is hot. You will generally find him under a tree or outside the tent on the shady side, whereas the practised hand is found in the tent, not only out of the sun but out of the wind as well, for he knows that the soft warm air that flutters the petals is almost as bad for the Rose as is the sun. See, the beginner has brought his Roses in a basket, laid one on the other, and covered with grass or Strawberry leaves. The box is really a stand, possibly a Chrysanthemum stand, just a bare green board on legs. The writer this year saw a green bottomless box perforated with six small holes just large enough to allow the stems of the Roses to go through. Six small glass vases about 3 inches high were set out on the stage, the bottomless box was placed over the vases, and the Roses were put through the several holes in the box into the vases hidden below. But to return to our beginner outside the tent. He takes the Roses out of the basket and spreads them on the grass. Notice his selection—he chooses the largest flowers, overblown, rough and off colour though they may be—a ragged Paul Neyron, a flat Her Majesty, a quartered Mildred Grant, and, perhaps because of its colour, an undersized bud of White Maman Cochet. The Roses are beginning to flag; they have been cut the same morning, they have not yet been in water, just brought straight away from the bed in the basket, and are now placed in the tubes without even having their stems cut. Now they are carried into the tent. The space has been filled up; but after a shifting up closer of other exhibits, room is at last found for him. Notice the staging. In some cases the blooms rest on the green board, not a leaf to be seen, or else a few leaves of Mrs. John Laing are carefully tucked round all the Roses as a sort of frill, to set off the flowers as a paper collar was once used for Carnations. The names of the Roses, if named at all, are hastily written out on slips of paper and laid in front of each Rose, or else a single sheet of paper with the names of the six written in ink beforehand is pinned in front of the box. The Roses thus staged are now left to chance; the exhibitor has departed; we shall see no more of him until the judges enter the tent, when he will stand at the tent entrance or peep through an opening in the canvas. He has gone into the next tent to give the finishing touches to his Potatoes, Carrots and Leeks, over which, in their preparation, he has spent as many weeks, or at least hours, as he has spent minutes on the Roses. The judging is over; there is no prize ticket on his stand; another has won. Now if he is a real beginner, if he is in earnest and not a pot-hunter, he will seek to know why he did not win. He will become observant of other people's boxes, tubes, supports, moss and labels, the height at which the flowers are staged and, above all, the style of the Roses in the first-prize stands.

But he has more, far more, to learn than what can be gathered at the show. Success lies not so much in the apparatus, soil, climate and numbers, as in the amount of attention given to the plants months before the show and to the flowers as they develop. The beginner has to learn that, like the Sweet Pea, Dahlia and Chrysanthemum, care must be bestowed on the cultivation of the Rose; but unlike the Sweet Pea, Dahlia and Chrysanthemum, the Rose has a very fleeting character. It is in seeming failure to recognise this character that the beginner finds the Rose so difficult to exhibit. He does not cut them at the right stage; a flower in perfection on the plant will probably be over before the judges come round. It is a case not of what is, but of what will be, at a given time in the future.

And now for a few suggestions. The beginner should not only provide himself with a box in which to stage his Roses, but an additional box to contain the extra blooms. He should make himself thoroughly acquainted with the points which constitute a good Rose. The National Rose Society defines a good Rose as follows: "A Good Rose.—The highest type of bloom is one which has form, size, brightness, substance and good foliage, and which is, at the time of judging, in the most perfect phase of its possible beauty." "A Bad Rose.—The following are serious defects in a Rose-bloom: faulty shape, confused or split centre and faded colour; also being undersized or oversized to the extent of coarseness or overblooming." Notice especially that "form" is the first essential. It is here that many beginners fail; they appear to think that no Rose can be a good one for exhibition unless it is large, no matter how confused the petals may be. In cutting for exhibition keep the flowers in water from the moment they are cut; if they are out of water a minute, cut the stems again before putting them in water. Roses stand the heat of the tent better if they are cut overnight before the dew rises. Go early to the show. Get there before eight o'clock in the morning. And when you arrive, be patient; do not get the Roses ready too soon. If you are staging six Roses, half-an-hour before the judging will be ample time to set them up. Often and often has the writer seen the prize, which could have been won, lost through impatience; the exhibitor would not leave his flowers alone, and by the time of judging they had been worried to death.

But, after all, the art of Rose exhibiting cannot be acquired at a single show, nor even in one year. As a huntsman knows his hounds by name and their individual characteristics in the kennel, in the covert and in the run, because he is constantly with them, so must the exhibitor know his Roses. He must live among them, work for them and observe them, and, above all else he must love them.

JOSEPH H. PEMBERTON.

NOTES ON NEWER ROSES.

V.—Hybrid Teas.

(Continued from page 480.)

Frau Ernst Borsig (P. Lambert, 1907).—This is something after the style of that good garden Rose Mme. Jules Grolez, which, in its own shade of colour, has yet to be beaten for massing or bedding, and is by no means a large Rose; bright yellowish carmine pink in colour. What a difficult matter it is to correctly describe the colour of a Rose; I have come to the conclusion that one must have the flower in front of you to do it accurately. It is not difficult to remember names, but when it is the exact shade of colour and wherein it differs from another shade of that same colour is quite another matter. Our catalogues leave much to the imagination in this respect. The official catalogue of the National Rose Society contains not a few errors, and as I understand the publication committee has now a revision of that book in hand to be published in the autumn, it would, no doubt, be glad to have them pointed out. If any member of the National Rose Society has any suggestions to make, will he forward them at once, and they will, I know, receive due consideration—all of which is a long way from Frau Ernst Borsig, which I am inclined to think is the most useful Rose of Herr Peter Lambert's 1907 set.

Florence Edith Coulthwaite (Alex. Dickson and Sons, 1908).—This is a beautiful Rose that varies very much, at times coming almost pale yellow without any other shade. At its best it should have a distinct flush of delicate rose pink, which makes the flower quite distinct. It has not come very large with me this season, but the plants had no assistance, and being hit very hard with the frost never really recovered. I have seen it very fine; it is sweetly scented, and of that good branching habit that ensures a flower from every eye, that has become typical of Messrs. Dickson's pedigree seedlings.

Frau Burgermeister Kirschstein (Jacobs, 1907). This is a fine, long bud that appeals rather to a button-hole-lover than the exhibitor, to whom this Rose will remain, in all probability, unknown. Colour, deep salmony carmine; medium grower and fairly free.

George C. Waud (Alex. Dickson and Sons, 1908).—The remarks I made as to the colour of all Roses being affected more or less by this season's heavy rain and being generally deeper, thereby losing some of the delicate shades that a normal season would give us, in connexion with Dorothy Page-Roberts apply equally to this Rose, and it is a similar shade of copper or orange that is missing. Those who were present at the Manchester show last year, where a very fine stand of this Rose was put up by the raisers and where it received the gold medal, will remember the glow that was apparent in the flowers. I have not seen that colour this year either in my own flowers or in any of this Rose that I have come across in the nursery or exhibition tent. Take it all round, I am inclined to think this is the best of Messrs. Dickson's 1908 set, although it is hard to say it is better than some of the others. But it is an exhibition Rose of very fine colour; it is scented with quite a distinct Tea perfume; it is of good habit, free enough to entitle it to be called a garden Rose. When you can say that a Rose has all these points, not much remains, and the Rose passes into that class that includes representatives of Hybrid Perpetual, Hybrid Tea, Tea, China, wichuraiana and all others, namely, to use a word that, I think, W. Robinson first coined in this connexion, the "Great" Roses. I do not think the raisers are claiming too much for this Rose when they state it is one of the best Roses they have ever sent out.

Purley. Herbert E. Molyneux.

(To be continued.)

Musk Rose (Rosa Brunonii) in Surrey.

ROSA BRUNONII (MOSCHATA) ON A SURREY HOUSE.

The accompanying illustration is from a photograph kindly sent to us by a correspondent who wishes to remain anonymous. It represents that beautiful and fragrant Rose, R. Brunonii, on a Surrey house at 6 p.m. on a July day, and although it does not do this charming little Rose full justice, it will give our readers at least some idea as to its climbing and decorative qualities.

ROSE WARRIOR.

The beautiful Rose Warrior illustrated on the cover of The Garden this week is one of the many introductions of Messrs. William Paul and Son of Waltham Cross. In growth and freedom of flowering it ranks equal to their well-known Corallina, both varieties being among the most precious of our decorative Roses. Undoubtedly the charm of Warrior is its deep blood red buds, elongated, I think, more than those of any other Rose of my acquaintance. As one enjoys the beauties of the buds, one is compelled to wish that the colour were maintained in the expanded flowers. But even though there is not the richness of the buds, there is, however, a beautiful tint of crimson, which, seen in the mass, makes a fine effect in the garden, borne as the trusses are on upright growths. As a decorative pot Rose for the conservatory Warrior has been found of much value, especially if the plants are not repotted every year. Providing they are top-dressed in autumn and liberally fed with liquid manure when the buds appear, plants in 8-inch or 9-inch pots will be the better for two or three years if the roots are left undisturbed. Warrior was raised from Marie van Houtte crossed with Princess Bonnie. I wish the latter deliciously fragrant Rose had imparted its perfume, but I suppose we must not be too exacting, and it is something to obtain such a gloriously coloured variety. This Rose gained the silver medal as the best Hybrid Tea in both divisions (nurserymen and amateurs) at the recent autumn show of the National Rose Society. P.

THE ROSE GARDEN.

SEASONABLE NOTES.

MUCH work must be done among Roses in October, and a great deal of the future success depends upon how this is carried out. In many seasons we have litted the plants during this month, and when they are sufficiently matured there can be no better time than this and early November. Hybrid Perpetual varieties, more especially those upon the Manetti stock, are much earlier in ripening than plants upon the Briar, and if transplanted while the ground is still fairly warm, new roots are produced at once. There can be little doubt that these are a considerable help towards preventing any shrivelling of the wood during winter, for, although they are not in much activity when real winter weather sets in, they are able to supply sap to help against drying frosts and winds.

All of us must have noticed how quickly an early lifted plant produces new roots when "laid in by the heels" for a short time. I would call attention to this in connexion with Roses for pots. There can be no better time than the present to pot Roses, especially the matured Hybrid Perpetuals. Pot more firmly than is generally the practice, and stand them half-plunged upon some shady border. It is better still if one can provide a cool pit or frame, anything that will allow of a little protection during severe weather. We sometimes experience a very dry October, and partial shelter, together with frequent sprinkling overhead, stops wood shrivelling. Except during severe weather, I prefer open treatment until the plants are wanted for the Rose-house. Another great advantage of a pit is the more steady way the plants can be brought on after pruning.

During this month, too, we should finish ripening established Roses in pots and those turned out in the house borders. A few of the ripest of these may be pruned, but the average amateur will do better to wait and secure blooms in February, when the turn of days helps in a wonderful way. Great skill and care are necessary to get presentable Roses at Christmas and the early part of the year.

HYBRID PERPETUALS

are not so much in demand for pot culture as formerly, the chief thing being to secure vivid crimsons and darks not found so freely among the Hybrid Tea and Tea-scented sections. Victor Hugo, Commandant Felix Faure, General Jacqueminot, Captain Hayward, Oscar Cordel and Fisher Holmes are half-a-dozen of the best darks, all other shades being found better among the Hybrid Teas and Teas, besides giving many more and a longer succession of flowers. The varieties suitable from the last two sections are far too numerous to name, but six from the Teas in Bridesmaid, Sunrise, G. Nabonnand, Niphetos, Lady Roberts and Souvenir de Pierre Notting, with Mrs. W. J. Grant, The Lyon, Betty, Dean Hole, Mme. Abel Chatenay and Richmond from the Hybrid Tea sections, should not be omitted from any collection.

ROSES FROM CUTTINGS OUTDOORS.

Turning to our Roses in the open once more, the time is fast passing for the best chances of rooting any varieties that may be wanted in this form. Chinas, and many of the Teas and Noisettes that are naturally of free and vigorous habit, may be rooted if fairly well-ripened shoots are inserted in a sandy loam. Frequent syringing overhead during dry weather and the little protection afforded by a wall or hedge are a great help to these. Perhaps the most suitable class of Roses to grow upon their own roots is the numerous wichuraianas, which are so deservedly popular. These root even more freely than Manetti or Briar used as stocks, and most of them thrive quite as well as when worked upon foster roots.

Although these root so freely, I cannot recommend them as stocks to work any desired variety upon, as it is almost impossible to keep them free of suckers in the open, and quite so when used for stocks of Roses worked under glass, so full are they of vitality and given to form eyes upon sucker-like roots.

The sooner you can get Briars from the hedgerow for standard stocks the better. Like the cuttings and Rose roots laid in, these callus at once and often make rootlets that are the saving of the stocks during winter and the trying winds after Christmas. Far too often these stocks are left about by the side of the ditches until several are ready to tie up, and we find the roots very susceptible to frost and drought. Trim the roots harder than is generally done and you will avoid much trouble from future suckers.

I have already advocated early planting, and at all events no time should be lost in getting the ground ready. Even if turned over again before planting it will benefit. The more it is moved and the manure incorporated with the soil the better. Do not give too rich a compost close to the roots themselves, and plant more firmly than usual. Much depends upon how the Rose is placed in its permanent quarters. Spread the roots out wide, and in the case of standards or tall pillar varieties, secure them against wind-swaying at once. When

PLANTING BEDS OR BORDERS

do not forget to note the habit of growth; often a bed is spoilt through neglect of this. All cannot afford space for a bed of one variety, but we can do much towards uniformity of growth by more care in selection. The choice is so immense that one can have almost any shade of colour in various habits of growth. I cannot close these notes without a word in favour of our glorious

TEAS AND HYBRID TEAS,

that invariably give us an autumn display. Year by year these are beautiful, and September, October and often November Roses are among the most pleasing of the season. Not a few varieties put on quite a different aspect late in the season. Marie van Houtte, Mme. Antoine Mari, Mme. Jean Dupuy and the old favourite Homère are particularly charming and lasting at this time: but of all Roses to stand autumn weather none rivals Frau Karl Druschki. Its pure white blooms seem to revel in wet and cold. Even hard buds open well if brought into a warm room or conservatory, and I have frequently cut them with ice in the centre of the petals and then succeeded in opening them by steady treatment.

Uckfield. A. PIPER.

ROSE DOROTHY PERKINS IN AMERICA.

Mr. T. W. Lawson, after whom the famous Carnation is raised, is shown at the window.

COLOURED PLATE.

PLATE 1884.

ROSE MARQUISE DE SINETY.

I THOUGHT at one time we should find this superb novelty of rather moderate growth, but apparently it will equal most of the yellow-coloured Hybrid Teas in vigour; in fact, it is superior outdoors to Instituteur Sirdey. The Briar cutting suits the Rose under notice admirably; indeed, this stock is even superior with me to the seedling Briar in producing a fine plant. In the near future I imagine Marquise de Sinety will be a formidable rival to Mme. Ravary, although I question whether we shall ever obtain a variety to really surpass this latter for general usefulness. In Marquise de Sinety we have a flower with the rich golden hue of the deep-coloured Trollius, and what a mass of it will be like may be imagined. The flower has a shapely, globular build, with just slightly reflexed edges to the petals. The lovely rich-coloured foliage, in the young state almost like Beetroot, gives a grand contrast to the flower. I wish M. Pernet-Ducher or some other raiser would make haste and give us a real golden bedding Rose of the colour of the common yellow Broom, which was such a grand picture in our locality this spring. We want a rich yellow bedding Rose that does not fade; but it is easier to express the desire than to produce the article, as all know very well who have had anything to do with raising novelties. However, I hope that before long this golden yellow bedder will be forthcoming. P.

SOME FAMOU

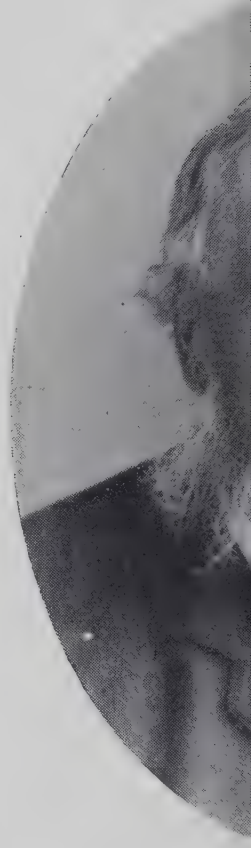
A. E. Prince.

Frank Cant.

Arthur William Paul.

Dr. J. Campbell Hall.

The Late William Paul, F.L.S., V.M.H.



The

H. Merryweather.

Hugh Dickson.

Arthur Turner.

Geo

G. W. Piper.

OF THE

ROSE RAISERS

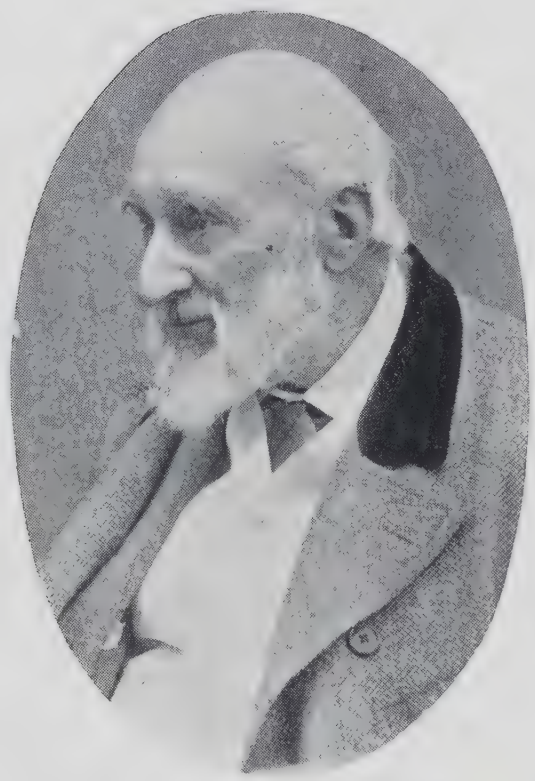
KSON.

BENJAMIN E. CANT.

GEORGE LAING PAUL.

CECIL E. CANT.

ENNETT.



THE LATE LORD PENZANCE.

A. R. BIDE.

HARRY VEITCH, F.L.S., V.M.H.

I.H.

S. MCGREDY.

WILLIAM COCKER.

FRANK SPOONER.

TISH ISLES

ROSE DOROTHY PERKINS IN AMERICA.

THIS charming Rose is, apparently, as great a favourite in America as it is in this country, and that it thrives equally as well there as here is evidenced by the illustration on page 494. Of the few instances we have seen of this Rose planted against a wall in this country, the effect has not been a particularly pleasing one; but evidently it thrives well in America when planted in such a position. The illustration of this Rose growing on a house represents Dreamwold Nest, the residence of Mr. T. W. Lawson, and it is that gentleman who is sitting at the window. As will be seen, the plants are a mass of bloom and evidently quite at home. The other illustration shows this beautiful pink Rose at its best, *i.e.*, covering the arches and handrails of a rustic bridge, and producing its trusses of blooms in profusion. Such an example is worthy of the keenest rosarian's art, and will, we hope, suggest ideas in rustic work to some of our readers.

ROSES FOR DECORATION.

AS becomes the Queen of Flowers, the Rose holds pre-eminence for the decoration and adornment of the home, and, with a welcome tendency nowadays towards the simpler forms of arrangement, the beauty of the flower itself is shown to the best advantage. While awarding due honour to many old favourites, it cannot be denied that a number of Roses of recent introduction lend themselves particularly well to decoration, their beautiful colouring at once arresting attention.

It is not so much among the exhibition varieties that this adaptability for decoration is to be found; for instance, Frau Karl Druschki, the most beautiful snow white Rose in cultivation, can scarcely be called a good decorator's Rose, though a bold group of this variety, cut with sufficiently long stems, may be arranged against a dark background with great effect. The chief points of a Rose for decorative purposes are colour, perfume and a certain amount of staying power. This latter attribute is rather wanting in such a fleeting flower as Comtesse du Cayla, and also in that pretty and delicately tinted Rose Lady Waterlow, charming as they both are in the bud state.

All the qualities of a perfect decorative variety may be seen in Liberty and its improved form Richmond, an added point, which will appeal to decorators with tender fingers, being that they have smooth stems with few thorns, so different from, for instance, Marquis of Salisbury, which, equally charming as regards colour, is a most trying Rose to handle by reason of its excessive thorniness. Another great favourite for the adornment of rooms, dinner tables, baskets, &c., is Mme. Abel Chatenay, equally beautiful in all stages, from the bud to the expanded flower. For bowls, La France and Caroline Testout are very effective. Killarney makes a beautiful basket Rose, provided it is cut early in the season before mildew has attacked the growth; so also does the semi-double Hybrid Tea Dawn. Dorothy Page-Roberts, Mrs. W. J. Grant, Lady Ashtown, Viscountess Folkestone, Lady Roberts, Catherine Mermet, Mme. Ravary and the new and beautiful Melanie Soupert are all good Roses for decoration, and Prince de Bulgarie, with brown foliage, is very pretty in the autumn.

The recently introduced Lyon Rose is very beautiful, but needs to be used quite by itself to be seen to advantage. Its peculiar shades of shrimp pink, with the golden base of the petals, are so unusual that they almost need a white background to be seen to full perfection. This lovely Rose is certainly one of the best of the new varieties.

In Roses for table decoration there seems a tendency to return to the use of the garden varieties, instead of the cluster ramblers which were so much in vogue for this purpose a year or two ago. These undoubtedly needed a skilled hand to attain the *juste-milieu* between a poor effect, the result of using too few blooms in an endeavour for lightness, and an overcrowded mass, by using too many; but some of the newer wichuraianas are undoubtedly very lovely. When visiting a nursery in Sussex lately some new varieties were shown me which seemed particularly well suited for decoration. Joseph Lamy (a delicate blush pink with deeper centre, of most artistic colouring) and Leontine Gervais (an apricot yellow tinged with rose), both with pretty foliage, were charming. So also were Crepuscule (Noisette), tinted yellow and salmon, François Juranville and François Guillot, and a paler sport from Dorothy Perkins was also worthy of notice.

Turning to the single Roses, none are more beautiful for a light decoration than Irish Elegance and Gottfried Keller, the latter a variety which I am surprised is not more used; its golden tints, combined with its orange buds and bronzy foliage, are very taking. Tausendschön (a bright pink) and the new Rose Entente Cordiale (a charming combination of colouring) are sure to become established favourites, while the pretty little yellow Canarien Vogel, with its dainty buds, is also worthy of mention.

Every year there seems to be a growing tendency to use their own foliage exclusively in arranging Roses, and surely this is a step in the right direction. In few private gardens are there the best varieties in sufficient numbers to admit of the foliage of any particular Rose chosen for the adornment of the house being freely cut to go with it; but the more luxuriant ramblers amply supply this deficiency, those with sprays of small, shining green foliage, such as Alberic Barbier, mixing well with many kinds, and the brown foliage of Sunset is also most valuable. A little care and thought in the judicious mingling of colours and disposition of the materials at command are always needed to ensure the best results; but with the improvements of modern cultivation and the varied tints and kinds now to select from, there should be no difficulty in finding beautiful Roses to harmonise with any and every scheme of the decorative art. One of the most beautiful flowers for the garden is G. Nabonnand, which gives its flowers freely in the autumn as well as the summer.

ROSE DOROTHY PERKINS OVER RUSTIC BRIDGE—A FLOOD OF FLOWERS.

EMILY E. WILLIAMSON.

Wilstead, Canterbury.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN. — The Gladioli have been very beautiful in the flower garden throughout the latter part of the summer, and now, as the flowers fade and the stems commence to shrivel, they must be lifted. Quite half of the stem may be cut away, the bulbs being buried in a mixture of dry soil and sand

1.—ON THE LEFT IS SHOWN A RIPENED SHOOT OF JASMINE SUITABLE FOR MAKING INTO A CUTTING, AND ON THE RIGHT A CUTTING READY FOR PLANTING IS SHOWN.

safe from frost in an open shed and left there until they are fit to store away for the winter. It is advisable to take the precaution to have all the varieties correctly named. Liliums that are now faded must be lifted and treated somewhat similar to the Gladiolus bulbs, but the storing of the latter is best done in sweet leaf-soil, Cocoanut fibre, or in dry soil in boxes. Those bulbs plunged in pots may be left in the latter, water being gradually withheld. If placed in frames from which the frost is excluded, the Lilium bulbs will keep perfectly sound. In instances where it has been difficult to get a sufficient number of cuttings of Calceolarias during the latter part of September, another attempt must be made at once to secure the required stock. Very often the best cuttings are those taken late in the season. Put them in firm beds well covered with sand on the surface. The Rose borders must also be carefully examined and all dead blossom-stems and heps removed from the bushes, but no attempt should be made at the pruning of the branches.

Vegetable Garden.—The warmest border in the garden—and that is, generally, the south one, or one sheltered by a wall or fence on the north and east sides—is one which should be well occupied with plants throughout the winter months. It is a very fine position for Endive where cultivators are not able to make use of a frame. The Endive plants may be lifted from other quarters and blanched in beds of comparatively dry soil on the warm border. Winter Radishes are best grown on the same border, and where it is inconvenient to put out spring Cabbage plants in their permanent quarters at this season, they may with much advantage be transplanted in narrow beds on the south border. Parsley, too, is a very important crop, and the seedlings that result from late sowings must now be freely thinned out; the remaining plants will then get more sturdy in a short time and be in a better condition to withstand the winter weather. Finish the work of cutting and clearing away the faded stems and foliage of Asparagus. In the northern counties it is, of course, much later in ripening than in the southern, and it is unwise to cut it too early. In districts where it is very difficult to procure Pea and Bean sticks, the best of the old ones must be neatly placed in an open shed for use again next season, when they may be mixed with new sticks. If left exposed to the weather during the winter-time they would quickly decay.

Fruit Garden.—The pruning of Red, White and Black Currant bushes may now be commenced where many of the leaves have fallen off. In dry, sandy soils the leaves of the trees fall off sooner than in more clayey ones. Cultivators who have been troubled with the Black Currant bud-mite should not hesitate to uproot and burn all the affected bushes. If the latter form a part of a large break, grown in this way for the convenience of covering to protect the fruit, it will be desirable to put the new bushes in the positions occupied by the damaged ones; but before this is done I advise the owners to put in some unslaked lime and mix it with the soil to a depth of 30 inches. Use 6lb. of lime per square yard of ground. Defer the planting of young bushes until next March.

Greenhouse and Frames.—Rose trees planted in borders in the greenhouse should now have a final pruning and cleaning for the winter. The pruning will simply consist of the removal of the very weakly shoots to prevent overcrowding; the cleansing, the thorough syringing of the branches with clean water, and then with a solution of 1oz. of soft soap and four gallons of warm water, in which has also been mixed 1oz. of flowers of sulphur. Ventilate the structure freely. Amateurs should not attempt to grow tender plants in frames in the winter-time unless the structures are heated. This is a favourable time for settling the matter of the occupants of all cool and heated frames. Procure mats, straw and litter for the due protection of all plants grown in the cold frames. Dry material keeps out frost better than wet. B.

HOW TO PROPAGATE THE JASMINE.

Of the many evergreen climbing plants that are well known in this country, I doubt whether there is any more popular subject than the Jasmine, or, as it is sometimes called, the Jessamine. There are stove and greenhouse species, each of which is very beautiful; but the hardy species are very attractive, and these are represented in far larger numbers than the more tender kinds.

An ideal situation for the hardy species of Jasmine is a well-drained border at the base of a south or south-west wall. In any case a sunny position is essential to its well-being, no matter whether this be against a wall or as a covering for an arbour or a trellis. Those who desire to make the most of their plants should utilise them for trailing over old tree stumps, where they will make a very beautiful picture. There are advocates who speak highly of this subject because of its extreme hardiness, and who vouch that owing to its vigorous and rapid growth it will succeed in almost any soil or situation. This may be so; but to be quite sure of a satisfactory result I prefer to plant in good soil in borders that are well drained and in a warm aspect.

As a plant for a town garden, the common Jasmine is an excellent subject. When planted with proper care against a south wall where a little sunshine can be obtained, there should be no difficulty in covering a space 15 feet to 20 feet high, and this is no mean achievement in a town garden.

Besides the common Jasmine (J. officinale), there is the bright yellow J. humile revolutum, excellent as a plant for walls, having evergreen foliage and flowering most profusely in summer and early autumn. Other good kinds are J. humile (a native plant of South Europe, having yellow flowers) and J. fruticans (also with yellow flowers), both flowering in the summer.

The Winter Jasmine (J. nudiflorum) is indispensable in every garden. Its value in the depth of winter cannot be over-estimated. The yellow blossoms wreath the leafless growths

2.—CUTTINGS INSERTED AROUND THE EDGE OF A 5-INCH POT. THEY MAY ALSO BE PLANTED IN BEDS IN COLD FRAMES.

when no other flowering subject is in evidence. On a south wall, or planted to trail among Ivy growths, which latter form an excellent ground colour, the Winter Jasmine is seen at its best.

In the present instance, however, I am more especially concerned in promoting the cultivation of the common Jasmine, that every garden-lover knows so well and doubtless desires to

3.—A JASMINE SHOOT PREPARED READY FOR LAYERING.

increase and perpetuate. This subject is increased by cuttings of ripened young shoots, of which a well-grown plant will yield a large number. On the left of Fig. 1 a typical growth for this purpose is shown. On the right of the same illustration is portrayed a cutting properly prepared and ready for planting. To make a cutting which, when completed, should be about 6 inches long, cut out the point of the shoot and also trim off the lower leaves, at the same time cutting through the stem immediately below a joint. All leaves on the lower 2 inches of the cuttings should be removed in the manner advised. When the cuttings are prepared as shown in the accompanying illustration they are ready for insertion forthwith.

Cuttings should be planted in the autumn, preferably in early October, utilising either the services of a cold frame or pots for this purpose. Should a large number of plants be desired, the cold frame offers great advantages. Make up a bed of sandy soil therein, and, after making this fairly firm, proceed to insert the cuttings 1 inch or 2 inches apart in the rows, and in rows about 3 inches asunder. Make the soil firm at the base of each cutting, and then, when completed, water in with clear water from a fine-rosed can. Most readers will require only just a few plants, and for this reason pots 5 inches in diameter will answer their purpose splendidly. Use clean pots and half fill with potsherds, so that the drainage may be perfect. Cover these with a handful of decayed leaves, &c., and fill in with good sandy soil, say, loam, leaf-mould and sand in equal quantities. Well mix before using and make this rather firm in the pots. Insert the cuttings about 1½ inches apart and about the same depth, pressing the soil firmly at the base of each cutting. Water in to complete the operation, subsequently plunging the pots in soil in the cold frame; a shady window will answer the same purpose. Leave the rooted cuttings in the pots until the succeeding autumn, after which they should be shaken out and planted. Fig. 2 represents a batch of cuttings inserted in a pot 5 inches in diameter. The cuttings after first rooting grow very slowly.

The common Jasmine may be increased by layering the young shoots in the summer. In Fig. 3 is portrayed a section of growth, showing how the layering should be proceeded with. The foliage should be removed at the joint it is proposed to layer and a slight incision made immediately below the joint, and this should be pegged down in a basin-like cavity in the soil, covering with a compost of a sandy nature. In the illustration is shown a galvanised wire (home-made) peg in position, except that it is moved a little to the left in order the better to show the joint. Fig. 4 shows a growth that has been layered with numerous roots emitted from the joint that was pegged down. Such growths should be severed from the main plant, and be planted in carefully prepared soil when in this well-rooted condition. D. B. C.

PENTSTEMONS.

These are lovely flowering plants suitable for filling side borders in the flower garden or for planting in the kitchen garden for the supply of cut flowers for vases during the months of July, August and September. Plants are easily raised in spring from seeds sown in pots or boxes; but those persons who now possess good strains should insert a number of cuttings in a sandy soil under a hand-light or in an ordinary frame. There must be no coddling of the plants, but while the weather is frosty it will be wise to keep the glass lights on after the cuttings have rooted. Shamrock.

THE TOWN GARDEN.

Planting Bulbs and Other Subjects.—In many gardens the summer bedding-out plants will have been cleared off the borders in readiness for the planting of bulbs and spring-flowering plants generally, and no time must be wasted in getting the beds ready for their reception where this work has not already been done. The Wallflower is a very valuable plant, and I think its merits are getting recognised more and more every year. I can readily sympathise with the town gardener, who is an enthusiastic lover of spring flowers, when he wishes to fill borders in rather cold passages between dwelling-houses and in other positions somewhat similar. If Polyanthuses or Primroses are planted, the leaves become infested with green fly even in the depth of winter. I have experienced this. It is really astonishing how well these pests flourish in the cold, cutting east winds; fairly severe frosts do not kill them. Wallflower plants are the most suitable for such places. When they are once established the plants do not suffer much from cold winds, but they do when planted late in spring. Be in time and plant sturdy specimens now. May-flowering Tulips also do pretty well in the cold positions, and Violas, too.

How to Plant Bulbs.—I like the soil to be in a nice friable state when putting in the bulbs. About 8 o'clock in the morning rake the surface of the soil with a long-toothed rake and leave the soil to dry for several hours. At noon the planting may commence, at which time it will be a pleasure to work in the soil. Instead of the bulbs being surrounded by a stiff, wet loam, the soil will crumble around them, and this condition is far better and more likely to result in satisfactory progress when the bulbs grow. Narcissus and Hyacinth bulbs should be buried nearly 5 inches deep in light soils and 4 inches in heavy ones; Tulips nearly 4 inches in light and 3 inches in heavy soils; Snowdrops and Crocuses must be buried between 2 inches and 3 inches deep. If some little extra care be taken to place sand around the bulbs in clayey soil, the growth of the bulbs will be freer and more even than would be the case if such material were not used. Daffodils look well in almost any position in the garden; but where north and east aspects are sheltered and the garden is warm generally, they look charming when growing in informal groups near fences, bushes, or trees. Avoid planting the bulbs in straight lines or in very stiff groups; when growing, an informal group with a few straggling bulbs flowering near it looks much more artistic and charming than so many blooms forming a square or a round patch on the grass or in the border.

St. Brigid Anemones.—The great diversity of colours of the flowers of these and the extremely pretty foliage make them general favourites. The soil in which the roots grow best is a light, sandy one, and the town gardener who has such a rooting medium in his garden could not do better than put in a number of St. Brigid Anemones. At the edge of shrubberries, on slightly raised banks, and even in dells where the soil is of a peaty nature and not inclined to be wet at any period of the winter season, the plants will be successful. In a garden where light soil prevails, these Anemones should be extensively planted, as the result would be so pleasing and uncommon. Plant strong roots 7 inches to 9 inches apart and cover them nearly 3 inches deep.

Ranunculus.—From the end of April to the beginning of July these plants flower freely. The colours are very striking and varied. The French (asiaticus superbissimus) are, perhaps, the best of all, though the double Persian and double Turban are exquisite in scarlet, white and pale yellow colours. The roots must be planted with the fangs downwards, as the crowns are on the top or upper portion of the root, where the fangs join. Put in the roots 2 inches deep in rather light soil, and the same distance apart as recommended for Anemones. In all cases where bulbs are planted among other kinds of plants, either name them or mark the places where they are planted with sticks. Avon.

4.—A PORTION OF A LAYERED SHOOT AFTER IT HAS BEEN SEVERED FROM THE OLD PLANT.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Fruits Under Glass.

EARLY GRAPES.—To obtain these very early the Vines should now be fully matured and fit to prune. When pruning cut to a plump bud as near the base as possible. I generally leave two buds and remove the weaker growth when about 3 inches long. See that the house is thoroughly cleansed and the rods slightly scraped to remove the loose bark and any insects, wash the rods and dress with a suitable mixture. Gishurst Compound, used according to the directions given on the box, will answer in most cases; but where mealy bug exists, a more severe scraping and dressing are essential. See that the brickwork is thoroughly lime-washed, mixing with this wash a little paraffin and working the whole well into the crevices. After the house and Vines have been thoroughly cleansed and put right, remove a portion of the top soil and top-dress with good loam, bone-meal and manure. The Vines should then be kept as cool as possible till the time for starting them.

Late Melons.—Keep the foliage of these clean and free from insects, and apply plenty of artificial warmth in dull weather to push along the crop and to improve the flavour of the fruits.

Figs.—As soon as all the fruits have been gathered, go over the trees and thin out all weak and useless shoots, so that both light and sun may reach and more fully mature the wood intended to fruit next season. To produce good crops of Figs, the shoots should be of medium size, sturdy and well ripened. Do not keep the roots too wet at this season; if the borders are fairly moist, no water will be required for several weeks.

Flowers Under Glass.

Hyacinths—Continue to pot up fresh batches of Roman Hyacinths, and also pot up the main batch of the large-flowering varieties. See that the pots are clean and well drained and the soil sweet and fresh. Boxes of Daffodils and Tulips for supplying large quantities of flowers should be arranged so that enough of variety and colour is forced into flower at the one time. Tulips Proserpine and Chrysolora are very useful for table decorations when grown in quantity.

Spiræas, Lilacs and Deutzias should be potted up at once, if not done already. When potting, do not reduce the roots more than is necessary; pot firmly, and stand the plants in an open position with the pots plunged in coal-ashes. Good batches of these hardy shrubs will prove exceptionally useful at a time when other flowers are none too plentiful. Prunuses, Cherries and Magnolias, when brought forward in a gentle warmth, flower freely. All plants requiring protection should now be housed before they get damaged by frost. Eupatorium odoratum which were planted out early in the summer and lifted and potted up some days ago will, if stood in any cool vinery where the Grapes have been cut, flower freely for some weeks and prove very useful.

Lift Up and Pot Chrysanthemums which have been planted out. These will produce large quantities of flowers for decorative purposes and prove useful when the outside flowers have been damaged by frost.

Frames.

Give plenty of fresh air daily in favourable weather to Cinerarias and Violets, removing the lights from the latter, excepting when there is much rain and in frosty weather.

H. Markham.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

Kitchen Garden.

Celery.—This important vegetable will now require attention. On any plants that are well grown, the outer leaves may be lightly drawn together and secured with a strip of matting. Afterwards give a thorough watering if needful, and a dressing of soot or lime around the plants to keep off grubs, which greatly disfigure the stalks in some districts, will leave all ready for the soil. This should be applied when the plants are dry, and be well pulverised, pressing it firmly and evenly until the leafy part of the stem is reached. Later supplies will require similar treatment, except that earthing is best left over for some time or until frost threatens, as when blanched the plants are more susceptible to cold than when in the green or natural state.

Cardoons are less cultivated, especially in Northern gardens, than their merits deserve. Plants full grown should now be divested of decayed outer leaves, and have the others drawn lightly together and be surrounded with hay or straw. Tie the same in place, after which the earth may be heaped all round, using more or less according to the height of the plants.

Brassicas of all kinds should now be cleared of bad foliage, and after hoeing the surface fork over the soil, piling a good portion of the same against the stems as a protection.

Cauliflowers.—The present spell of warm, dry weather is hastening these to maturity. A number of the most forward should be lifted with roots and some soil attached and laid in a cool, fairly moist position. Others less advanced may be retarded by having a spade thrust in beside them and be partly thrown over away from the sun.

Hardy Fruits.

The gathering of the various crops will occupy much time, but this is well spent, for if gathered too soon fruit never attains its proper flavour, and if left too long upon the trees mealiness is the result, and great risk of damage by wasps and insects.

Apples of the earliest sort being now past, others to succeed them should be gathered at intervals, as advancing colour and ready parting from the branches warrant. If wanted for use at an early date, a number put within a close-fitting box and placed in the dry warmth of a vinery or plant house accelerates the ripening very considerably.

Pears.—The foregoing remarks apply equally to these, but still closer observation is required to get the earliest-ripening varieties at their best, which at most only lasts for a few days; the most pleasing exterior often hides a fast-decaying centre.

Plums.—Where any difficulty exists with regard to ripening these upon the trees, or if the pests that usually prey upon them are very aggressive, the fruit may be gathered when fully grown and the change to ripening appears. Place them in single layers in a warm situation, where the process will generally continue satisfactorily.

Root-pruning.—This work is often done too late to benefit the cropping properties of the respective trees the season following, and it is seldom that trees bearing a full crop are in need of this; there is no reason why others excessively vigorous and fruitless should not be operated on at once. Plums, perhaps, are more given to exuberance than any other fruit tree, but both Pears and Apples share in it to some degree, more particularly in the case of young trees. Prudence is necessary in dealing with trees that have produced very vigorous shoots, or a too severe check may be given.

James Day.
(Gardener to Sir Malcolm M'Eacharn.)
Galloway House, Garlieston, Wigtownshire.

OLD ROSES.

ONE day, lately, in the drawing-room of an amateur Rose-grower I saw a beautiful sight—a Rose table with specimens of all the loveliest Roses in bloom at the moment in the owner's garden. Colour, shape, velvet of petal and health of foliage, all combined to make these fresh-gathered Roses as near to perfection as a non-exhibiting Rose-lover's heart could aspire to or attain. Harking back to earlier gardening days, one stood wrapt in wonder noting the change and advance which Time had wrought. In years gone by, to begin with, a display of autumn Roses of the kind would have been impossible, simply because they did not exist.

Yet, when all is said for the Roses of to-day, there is one supreme charm often lacking which some of the old-time Roses gave us in no stinted measure—the joy of fragrance—and, with a sense of relief, one realises that after all we cannot even yet afford to dispense with the best of the old favourites which lent their delicious scent to our grandmothers' pot-pourri.

So, in this Rose Number of The Garden, let a word be put in lest we forget to reserve some place for the sweet-smelling summer Roses of long ago.

The Rose of all others for this particular quality is the Provence or Cabbage Rose, and in spite of somewhat weakly growth and poor leafage it possesses, besides its scent, an artistic value of its own which no one can deny who is conversant with the Dutch flower-paintings of 200 years ago. Its season, too, is early summer, and therefore it is less apt to come into collision with modern Roses of more symmetrical form. This fine old Rose is seldom seen in good condition, for by some strange misapprehension people suppose that it needs neither care nor attention, and that it only asks to be let alone. Never was there a greater mistake. The Cabbage Rose will make a good standard, but it is as a dwarf bush that it is more generally acceptable; and, if you chance to have it, a light, sandy soil will suit it admirably, and then it will succeed well grown on its own roots, which is a great advantage. Prune it well back each season—some say cut away half the shoots to two or three buds in October and the rest in April to prolong the flowering season—mulch well in November, and you will find that you need not grudge the room it takes. The lovely cream white Rose Unique, a Provence of the same type and hardly ever now to be met with, should not be overlooked, nor the tiny Rose de Meaux, beloved of children and of peculiar fitness for their miniature borders.

The old blush Moss Rose, again, is but a variety of the Provence. It is known as the common Moss, but is far better, to my mind, than any of the improved varieties, most of which have departed from the slender, shapely form of the original. This should certainly find a place, if only for the pleasure of having a bouquet or two each summer of its charming half-opened buds. It repays, by vigour and freedom of flower, the same treatment as the Provence, while an occasional transplanting into fresh soil renews its youth.

In a Sussex garden not far from my own there are bushes of summer Roses in the shrubberies which have indisputably been there for forty years. They have the same full scent and colour, but the flowers are flatter and more open than those of the Cabbage Rose. They are in all probability relics of the Hybrid Provence × Gallica, which were precursors in their day of our Hybrid Perpetuals and Hybrid Teas. Now they are nameless, but for cutting and filling a room with their unrivalled perfume how welcome still!

Sentiment, perhaps, may plead for such of the old Roses as the English white Rose, the striped York and Lancaster, the Damask or the

Maiden's Blush; but it is doubtful whether these will ever regain or even retain a place in good gardens. It may give a certain pleasure—even a thrill sometimes for old sake's sake—to come across one of these in some old-world spot. Nevertheless, we feel no strong impelling desire to transplant either of them into our own garden, for their inherent merits scarcely appeal to us. Yet they have done their part, as stepping-stones, to our better things; and even in this group Rose Celeste, charming alike in its blue-green foliage, opening flowers and delightful scent, must not be left out.

And what garden would be complete without the pink and crimson China Roses of the old type, or the little Scotch Briars, white and pink and sulphur, to herald the coming in of the rest, or some of the old ramblers which are not even yet superseded by the new?

We can fit some or all of these into the most modern of gardens if we do but take time to think where best they may be placed while we give fair play to a tender feeling for the past. For these old Roses are intertwined with memories which will linger, like the subtle incense of their own faded petals, as long as English men and English women are found, to the remotest corners of the Empire, whose hearts beat true to their country and their home. K. L. D.

ROSES IN A NOTTINGHAMSHIRE NURSERY.

DURING one of the very few fine days that were experienced in July last, we had the pleasure of spending a few hours with Messrs. H. Merryweather and Sons at their wonderful Rose and fruit nurseries at Southwell, Notts, and we were so impressed with what we saw there that we feel sure our readers will be pleased to learn something about this home of England's favourite flower. When we say that no fewer than 120,000 Roses were to be seen growing here, this will give a faint idea as to the extent to which the Rose is cultivated, and it may be of interest to record that 150 acres are devoted to Roses and fruit trees.

We have never seen maiden Roses, *i.e.*, those budded a year previously, in such vigorous condition before; in some varieties, such as Mme. Jules Gravereaux, we noticed shoots 5 feet high, and even in the Hybrid Perpetuals the bushes were well branched from the base, a most desirable, but not always obtainable, feature in bush plants of this section. The Lyon Rose seemed to have spread itself over the whole of the acreage devoted to Roses, breadths of it cropping up everywhere, and we saw here the most perfect bloom of this wonderful Rose that it has up to the present been our privilege to behold. One only wished that it had been the "National" show day, so that this bloom could have taken a medal as one of the best blooms in the show. As a standard or pillar Rose, Lyon has a great future before it. A splendid companion to this is Marquise de Sinety, which has a most delightful fragrance; the blooms are large and full, and the colour has been described as Roman ochre, shaded rosy scarlet. Mme. Constant Soupert is a beautiful deep yellow, shaded peach carmine Rose; it was thriving wonderfully at Southwell.

Among others that may be regarded as new, or at least of recent introduction, we were particularly pleased with the following: Dorothy Page-Roberts, a beautiful Hybrid Tea of combined coppery pink and apricot yellow hue, very free flowering and a charming Rose; Ecarlate, an intense brilliant scarlet that should make a grand edging to the taller-growing and less vivid Grüss an Teplitz; Friedrichsruh, a blood red Tea with large and fragrant blooms, but not over free in flowering; George C. Waud, a Hybrid Tea with large and perfectly shaped flowers of orange vermilion colour, the bushes being very vigorous; Harry Kirk, long pointed buds of deep sulphur yellow and very fragrant, the habit of the plant being very branching and good; Hugo Roller, a very charming free-flowering Rose, the ground colour of the blooms being lemon yellow, the margins of the petals edged bright rose, this being more or less suffused through the petals; Joseph Lowe, a beautiful salmon pink sport from Mrs. W. J. Grant; Lady Helen Vincent, very fragrant and shell pink in colour; Mrs. Aaron Ward, buds rich yellow, changing to a pink hue as they age, and finally turning to almost white in full-blown flowers; and Mrs. Harold Brocklebank, a splendid Tea-scented Rose of exquisite shape, colour creamy white with buff centre, a splendid show variety.

Among the Polyantha section we must not omit to draw attention to those charming novelties Jessie and Phyllis. The first-named is bright cherry crimson, and the latter bright carmine pink. Both are absolutely distinct and far superior to others of this section, the flowers retaining their colours in bright sunshine. We have never seen a prettier sight than a hedge of Phyllis which Messrs. Merryweather have planted inside an open ironwork fence which runs alongside their principal nursery. On one side of the fence is an asphalte pavement, and on the other this Rose is planted, and there it was flowering away as freely as though it had been planted in an extra well-prepared situation. While writing of Rose hedges we must refer to "The Thornless Rose," Zepherin Drouhin, a remarkably free variety of charming bright old rose colour and deliciously fragrant. As a specimen plant or for forming a hedge, this old but little-known Rose should be very extensively planted.

Among the many climbing Roses grown by Messrs. Merryweather we noticed the pure white Dorothy Perkins growing away freely, and Tausendschön, Stella, Tea Rambler, Thalia, Euphrosyne, Hiawatha, Philadelphia and Crimson Ramblers were all in first-class condition.

Of what may be regarded as the older bush Roses, the following we noted as possessing good, all-round characteristics: Amateur Teyssier, a Rose that is little known, but which ought to find a place in every garden. It is almost perpetual flowering, has saffron yellow flowers of exquisite shape, is delightfully fragrant, very vigorous and will grow almost anywhere. Commandant Felix Faure should be used largely as a red bedding Rose; although a Hybrid Perpetual it is very free. Comtesse du Cayla is a China Rose, the colour of which is described as Nasturtium red, tinted with orange and carmine, changing to coppery yellow; it is very vigorous and free. Crepuscule is a charming Noisette with chamois yellow buds tinged with red, the open flowers possessing a pretty salmon hue. Dr. Grill is a very free Tea that should make a good bedder; the colour is coppery yellow in the centre, shading to clear rose. Duke of Connaught, Duke of Edinburgh and Fisher Holmes are a trio of Hybrid Perpetuals that are too well known to need description; at Southwell they were fully maintaining their high reputation.

Gustave Grunerwald is a lovely scented, bright carmine pink Hybrid Tea; and Königin Carola is evidently a splendid garden Rose, the large satiny rose flowers being produced in abundance. Mme. Chedane Guinoisseau is a Tea that will doubtless be largely planted for bedding purposes; the flowers are of that delicate canary yellow colour found in Maréchal Niel. Mrs. David McKee is another pale yellow Rose of exquisite form, and the habit of the bush is very good indeed. Pharisaer (a Rose that does well in London), Prince Arthur, Richmond, Sulphurea and Ulrich Brunner are all that lack of space will allow us to mention.

Of the fruit trees, we can only say that these were in as perfect condition and health as human skill can make them. The orchards of Apple Bramley's Seedling, which was first discovered at Southwell, were a sight worth going far to see, and a new Damson with fruits as large as Orleans Plums is a novelty that we shall doubtless hear more of in the near future.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London, W.C.

Eupatorium coelestinum.

The Comte F. Lurani, Cernusco, Lombardone, Italy, sends flowers of this interesting species. It has Ageratum-like flowers, and is fairly common in the Southern United States, although it is not mentioned in any important garden books. It is usually found in open, damp woods or by the sides of water-courses, growing from 1 foot to 3 feet high, with branching stems and opposite, petioled, ovate leaves. The small blue flowers are very numerous, and are produced in the form of a corymb from August to October. In its native country it is called the Mist-flower, owing to the mist-like appearance presented by the flowers. Although not so handsome as many of the Eupatoriums grown, the colour of the flowers of this plant is a strong recommendation, and it should be well worth cultivating as a pot plant.

Sweet Peas from Dumfriesshire.

Mr. John McKay, The Gardens, Craigieburn, Moffat, Dumfriesshire, sends a delightful gathering of Sweet Peas. The flowers were wonderfully fresh in colour and showed the most successful cultivation.

Flowers from Sussex.—Abutilon vexillarium variegatum.

Thirty years ago, when large greenhouse plants were in favour, this Abutilon was often trained on a network of wires in the shape of a balloon; but even such mistaken kindness was not able to wholly destroy its natural beauty. Its leaves are heart-shaped, long in proportion to their width and mottled with every shade of green and gold. The flowers, produced singly from the axils of the leaves, are very brilliant; the inflated calyx is like a bright red miniature Winter Cherry, while the corolla forms a clear yellow bell below, with a cluster of purple brown stamens hanging from it. It is never seen at its best in a small pot. When planted out in a border of good loam and decayed manure it grows vigorously, is more free-flowering and the variegation is brighter. Probably in more Northern districts it would be necessary to plant it in a cool house; here we have it growing on a south wall. The plant was rooted from a cutting and planted out about three years ago, and now measures 9 feet in height and 12 feet in width, flowering freely each season. In winter the roots are mulched with leaf-mould and the stems covered with a mat. Treated in this way only a few of the softest shoots are damaged by frost, and the rest grow away freely as the weather becomes warmer. As a proof of its comparative hardiness I may mention that Jasminum primulinum in the same position and treated in the same way was frozen to the ground-level, although not killed.—J. Comber, *Nymans, Sussex.* [Our correspondent sent vigorous shoots of this plant, and also of the bright scarlet Berberidopsis corallina.—Ed.]

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR OF THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Blue flowers for autumn (*J. F.*).—We fear you would have to fall back very much upon the Michaelmas Daisies and their near allies for blue flowers for the period you name. Occasionally, however, the Larkspurs give a second flowering, but they are by no means reliable in this respect, and after July so fine a plant as Anchusa is getting over, though in your district it may continue to a later date. You speak of "hardy plants for herbaceous border," and we take that expression to mean perennials; but, if not, there are other things which might be added. Would you, therefore, write us again and say definitely? and please give the size of the border that we may have a guide when giving the list.

Pæonies diseased (*V. Hopkins*).—The Pæonies are suffering badly from a fungus disease, and all you can now do is to cut away the stems and burn them forthwith. If all the plants in the border are similarly affected, the disease is likely to occur again, and if so it would be unwise to introduce fresh stock there. It would be well, too, another year to spray the plants from time to time with some fungicide preparation or with sulphide of potassium, using 1oz. to three gallons of water and taking care to wet all parts of the plants. Employed once in spring and again two or three times when the flowering is over, the disease may be held in check. The poor flowering is not due, we think, to the disease which has put in an appearance late in the season, but rather to the poor soil at the roots. Pæonies are among the most voracious of herbaceous plants and root very deeply. They are greatly benefited by being deluged in winter with liquid manure. It is possible your plants would be benefited by dividing and replanting, and this should be done at once if at all.

Double-flowered Nasturtiums (*E. R.*).—Although, as you say, it may be impossible to grow as many of the double-flowered Nasturtium as you require from cuttings, yet the fact remains that it is the only way by which it can be increased. The weaker, short-jointed shoots make the best cuttings, and they should be given much the same treatment as cuttings of Fuchsias and similar subjects; that is to say, they must be dibbled into pots of sandy soil and kept rather close and shaded in a warm greenhouse till rooted. Where space during the winter is an object, six or seven cuttings may be struck in a pot 5 inches in diameter and allowed to remain therein till the spring, when they must be potted off singly. Although you have failed to find mention of the double-flowered Nasturtiums in any catalogue, there are several forms in cultivation, and some of them have been grown for nearly thirty years. One of the earliest, if not actually the first, was known as Hermine Grasshof; but we have not met with it of late. Messrs. Cannell of Swanley catalogue three varieties of these double-flowered Nasturtiums at a very cheap rate, and one is offered in the catalogue of M.M. Lemoine et fils of Nancy.

Fowl-manure for Sweet Peas (*J. C.*).—Yes; fowl manure is good, but it is a concentrated nitrogenous food, and must be used with care. It should be dried in an open shed and stored in sacks for use. Before application mix it with an equal bulk of fine soil, and incorporate it in the soil in the bottom of the trenches.

Plants for pots (*Salop*).—Small plants of Yucca recurva or Y. gloriosa would look quite well, but if repeated indefinitely would become irksome. In addition to these, small plants of Retinospora obtusa, R. squarrosa, Cupressus lawsoniana and C. l. erecta viridis would also look well. You might also try silver and gold Euonymus or any of the more decided Aubrietias, together with Alyssum saxatile, Cerastium tomentosum (a white-leaved plant of trailing habit) or the more pigmy-growing of coniferous trees. If you could give ample attention in watering during summer, and afford protection from winter frost, you might succeed in growing the Hydrangea in some of the large pots, while such Funkias as F. Sieboldii and F. ovata aurea, Sedum spectabile and a few of the hardy Fuchsias would afford pleasing variety throughout the year. A good deal of success might be secured in your case with the large pots you have at hand, provided close attention to watering was given. By heaping up the soil round the stems of the plants, and preventing the water lodging and freezing on the surface, the plants should be quite safe as they are.

TREES AND SHRUBS.

Sap oozing from Monkey Puzzle (*Mrs. P. S.*).—We are sorry to say that we do not know of anything that can be done to your Araucaria to stop it bleeding. You might try drying the places and tarring the wounds over. It is probable that the liquid you mention is some kind of fungus growth. Such a thing has occasionally been observed on the Araucaria. The liquid which exudes looks like froth in the case of the fungus.

Planting copse (*H. P. B.*).—Unless the cattle were prevented by a sunk fence or other means from entering the copse, they would of a surety go there and do much mischief by treading down things, if nothing more. Cattle usually do not touch the Daffodils; but we are not sure whether they would interfere with any other plants which may be introduced. Strained wire fencing does not make much of a display, and is often seen in parks for the purpose of keeping the cattle from the trees, whereas a sunk fence would be a little out of place.

Old Lavender hedge (*R. E. C.*).—You cannot do better than make a fresh start with your Lavender hedge. If you cut the old plants back into hard wood you will kill them, and if you simply cut a little off the top no good will result. On the other hand, if you root cuttings and commence anew with healthy young plants, you will obtain a good hedge which will be satisfactory for a number of years. The great point to observe with such a hedge is to keep it cut each year after the flowers are over. This will keep it compact, and it will last in good condition for a much longer period than it would if it were left untouched or left unpruned for two or three years and then be given a hard cutting back. It is one of those shrubs which will not send out good shoots from old wood.

Lonicera Hildebrandtii (*M. S. F.*).—This is a very rapid grower, but we are afraid you will find that it is too tender to succeed out of doors. If you wish for a Honeysuckle, you will find the new Lonicera tragophylla a suitable plant. A plant, however, which is uncommon and an exceedingly beautiful subject, is Clematis montana var. rubens. This is a very rapid grower, and bears a profusion of reddish flowers in May and early June. A good Vine for the purpose would be Vitis Coignetiæ. Do not prune your Solanum until spring. In the event of severe frost, cover it with a few Yew or Spruce branches. A few cuttings rooted now would ensure a stock in the event of the plant being killed. In spring cut it back about halfway if still alive. Polygonum baldschuanicum requires no other pruning than the cutting away of loose or dead branches in spring, providing plenty of room can be given. If, however, it has outgrown its space, you may cut it in moderately hard early in March. If you cover your Solanum, do not do so before frost appears, and remove the covering on the break up of the frost.

Replanting Virginian Creeper (*E. K. B.*).—You may transplant your Virginian Creeper at once, or within a few weeks of the leaves falling. If from any reason the work cannot be done within that period, leave it until March. Old examples are not very good plants to re-establish, and you would probably clothe the new position quicker by inserting a young plant from a pot next spring. If, however, your specimen is a fairly young one, you will most likely be successful in transplanting it if you use ordinary care in taking it up.

Wistaria not flowering (*T. A. S.*).—Your Wistaria ought to be pruned. The work would have been better performed a couple of months ago; in fact, two prunings are often necessary on wall-grown plants, the first as soon as the flowers have fallen and the second early in August. Cut all the current season's branches back to within four or five eyes of the base and encourage the plant to form spurry growths. Plants which get into a spurred or somewhat stunted condition always blossom more satisfactorily than those which form a lot of rank growth. The pruning had better be done without delay.

Rhododendron bushes damaged by cold winds and frost (*Edward Hilliard*).—If your Rhododendron bushes were perfectly healthy until the young shoots were damaged by frost and cold winds in spring, it is unnecessary to lift them and give new peat, for they will probably form fresh growth this summer. If, however, they did not appear to be very strong, the roots may be in bad condition, and in this case they ought to be taken out of the old soil and replanted. If this has to be done, do not replant in all peat, but mix peat and sandy loam together, in the proportion of one part of the former to three parts of the latter. Do not plant deeply; merely cover the surface roots, but do not bury them deeper than half an inch. The wood can be cut back to where it is alive at once, and if replanting is necessary it ought to be done now.

ROSE GARDEN.

Roses for cold greenhouse (*J. R. N.*).—Maréchal Niel in its early stages of growth is much addicted to mildew. If you could give the plant plenty of air right from the time you pruned and allowed air to enter the house night and day, we think you would find the young growth so hardened as to be able to withstand the attack. It is a soft condition of wood and foliage that really invites mildew. Cyllin Soft Soap is an excellent remedy if applied before the pest gets a strong hold. The following two dozen varieties would give you an excellent selection for your cold greenhouse: Caroline Testout, Admiral Dewey, La France, Augustine Guinoisseau, William Askew, Marie Croibier, Frau Karl Druschki, Anna Olivier, Farbenkönigin, Joseph Hill, Lady Battersea, Lady Roberts, Laurent Carle, Mme. Falcot, Mme. Hoste, Mme. Jean Dupuy, Mme. Leon Pain, Mme. Ravary, Marie van Houtte, Mrs. Aaron Ward, Richmond, Prince de Bulgarie, General McArthur and White Lady.

Forming a Rose garden (*Mrs. Lee*).—We cannot undertake to furnish complete designs for Rose gardens, but advise you to consult some of the large Rose nurserymen, who would draw you a plan to scale. However, we are always ready to offer suggestions. We think the rough sketch you send would make a most excellent Rose garden. In the centre bed you could either have a seat, over which climbing Roses could be trained on arches, or you could plant a weeping Rose on a tall stem, which in time would enable you to form an arbour beneath its branches. If you do not care for either plan, then standard Roses in the centre would look well. At the various angles standard Roses of the free-headed sorts would be most picturesque, while over the paths arches could be spanned at intervals and covered with the many beautiful rambler Roses. We strongly advise you to have a bed of a kind, or, if not this, then a bed of one colour. If you give us a rough sketch of the design when prepared, we shall be delighted to afford every information as to the best varieties to plant. The soil should be well and deeply dug, taking care to fork up the second spit, but do not bring it to the surface. Admix farmyard manure liberally and add some half-inch bones to each bed.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

COLOUR NOMENCLATURE.

A NOTE appeared in The Garden recently from the Rev. W. Wilks, secretary of the Royal Horticultural Society, recommending a colour chart, and we reproduce it again with some comments from one to whom we owe much for guidance in defining colour in the garden and home :

"For many years the Royal Horticultural Society has been confronted with the difficulty of describing exactly the colour of any particular flower in terms which shall be distinctly and definitely intelligible in New York and Paris, Berlin and Quebec, &c., as in London. It is a difficulty shared by all who have in any way, or at any time, to represent colour in words. We determined, therefore, to endeavour to establish an International code, by which anyone, anywhere, could convey to anyone else at a distance of time or place exactly and precisely the colour and shade he is speaking of. With this end in view we searched for a good colour chart, and have been successful in finding an excellent one containing 360 colours between white and black, with the name of each in French, German, English, Spanish and Italian, together with four shades of each of the 360 colours, so that anyone wishing to describe to a friend at Calcutta the exact colour and shade of a flower, or a silk, or a painting, need only refer to the colour chart number, quoting, if for apricot, *e.g.*, page 53, shade 3 ; or if for rosy pink, page 118, shade 4 ; and so on. The cost of production of so beautifully printed and so large a chart was, of course, very heavy, and it was issued at one guinea net; but our society, by adopting it as an International standard and purchasing a very large number of copies from the publisher, is able to supply it to our Fellows and others at 14s. 6d., or if by post 15s. . . . . It would make it quite easy for mercers and drapers to match any goods for customers at a distance ; in fact, if once we could establish this chart as an International colour reference, its subsequent use would develop in all directions."

It is with extreme regret that I have to express dissent from any opinion given by my valued friend, Mr. Wilks.

The colour chart, which I believe to be the one in question, was lent me about a year ago, when I carefully went through it. Many of the colours and names given may stand as fairly representative, but a good proportion are misleading. There are colour words that are in themselves so vague that they cannot be defined. For instance, who can venture to say what is exactly meant by "azure"? The word presents the idea of some kind of light blue, but who shall say what kind of light blue ; whether hard and cold, or greenish, or inclining to lilac? Yet, if I remember rightly, the chart lays down a series of shades of so-called azure blue. Then the word "flame," so commonly used as a colour word. It cannot be defined, though it stands, quite erroneously, for some kind of scarlet. The colour of flame is yellow, yellowish, whitish, sometimes grey bluish. I do not remember whether there is in the chart a range of colouring called "flame," but speak of the common wrong use of the word and the impossibility of defining it.

Venturing to speak as one who has made a lifelong study of colour, I do not think that a trustworthy colour chart is a possible thing. The only colours that can be accurately described in words are those that belong to some natural or manufactured substance whose colour is invariable, or so nearly so that the variation is practically unimportant. Such a word and substance is sulphur. Questions of transmitted light and of texture also greatly affect colour. A practical decorator who has been all his working life mixing and matching colours finds it difficult—often impossible—to match a tint in paint from a piece of textile fabric; thus the matching in a flat tint of the colour quality of a piece of not quite white velvet would be a problem that an experienced painter would find it hard to solve.

G. Jekyll.

SOME LITTLE-KNOWN GRAPES THAT RIPEN IN A COLD HOUSE.

The undermentioned Vines have this year ripened their fruit well in an unheated, lean-to vinery facing south-east in this locality, in some cases preceding a Black Hamburgh in the same house. They are all grown partly in an inside and partly in an outside border, and have had no special care or treatment. The season here has been bright and unusually dry, but the mean temperature has been below the average.

Chasselas de Florence.—A beautiful golden berry with an exquisite Sweetwater flavour. Barron lists it, but does not say enough in its praise.

Muscat Bretonneau.—Amber berry, firm flesh, fine Frontignan flavour.

Muscat Violet.—Reddish purple berry, Frontignan flavour, very prolific. Barron lists this, but omits to mention its Frontignan flavour, which is pronounced.

Fondant Rouge. — Berry dull pink, fine Muscadine flavour, prolific. Distinct from Chasselas Rouge, or Rose.

Raisin Hardy.—Oval, purple berry, firm flesh, thick skin, fine vinous flavour, bunch medium.

Grand Turc.—Long, oval, purple berry, peculiar sweet vinous flavour, berry and bunch medium.

All the above, as their names imply, are of French origin. Where not otherwise stated, the berries and bunches are small, but with severe thinning the berries much increase in size. All set freely except Grand Turc. All are of healthy growth, slender, except Raisin Hardy and Grand Turc, and do not seem to have any tendency to shank.

Wing's Red Keeping.—From the United States of America; berry green, heavily blotched with red, gelatinous flesh, Pineapple flavour, said to keep long, vigorous; foliage handsome.

All the above-named Vines are very cheap—none of them more than 1s. 3d. each—and to the amateur who prefers variety and fine flavour to size may prove interesting. I shall be happy to reply to any query respecting them through your columns. O'Hanlon, M.A.

Innishannon Rectory, County Cork.

[We welcome this letter from Ireland. The class of Grape described is of delicious flavour, and we feel sure many of our readers will appreciate the promise of further information from our correspondent.—Ed]

BRITISH-RAISED ROSES.

(Continued from page 490.)

The following is a continuation of the list of British-raised Roses which was begun in The Garden of last week (page 490). Their publication has aroused much interest among rosarians, and in several letters received the writers have expressed astonishment that so many hybrids and varieties well known in our gardens have been raised by British growers:

Dainty, T., W. Paul and Son.
Daisy, H.T., A. Dickson and Sons.
David R. Williamson, H.P., W. Paul and Son.
Dawn, H.T., Paul and Son.
Dean Hole, H.T., A. Dickson and Sons.
Delicata, Rug., Cooling.
Devoniensis, T., Foster.
Dora, H.T., W. Paul and Son.
Dorothy, H.T., H. Dickson.
Dorothy Dennison, Wich., A. Dickson and Sons.
Dorothy Page-Roberts, H.T., A. Dickson and Sons.
Dr. J. Campbell Hall, H.T., A. Dickson and Sons.
Dr. O. Donald Browne, H.T., A. Dickson and Sons.
Dr. Sewell, H.P., Turner.
Dr. William Gordon, H.P., W. Paul and Son.
Duchess of Albany, H.T., W. Paul and Son.
Duchess of Bedford, H.P., Postans.
Duchess of Edinburgh, H.T., J. Veitch and Sons.
Duchess of Fife, H.P., Cocker.
Duchess of Portland, H.T., A. Dickson and Sons.
Duchess of Wellington, H.T., A. Dickson and Sons.
Duchess of York, H.P., Cocker.
Duke of Albany, H.P., W. Paul and Son.
Duke of Connaught, H.P., Paul and Son.
Duke of Edinburgh, H.P., Paul and Son.
Duke of Fife, H.P., Cocker.
Duke of Teck, H.P., Paul and Son.
Duke of York, China, W. Paul and Son.
Earl of Dufferin, H.P., A. Dickson and Sons.
Earl of Gosford, H.T., McGredy.
Earl of Pembroke, H.P., Bennett.
Earl of Warwick, H.T., W. Paul and Son.
Edith Bellenden, Briar, Lord Penzance.
Edith D'ombrain, H.T., A. Dickson and Sons.
Edith Turner, H.P., Turner.
Elaine, H.T., W. Paul and Son.
Electra, Mult., J. Veitch and Sons.
Elizabeth Barnes, H.T., A. Dickson and Sons.
Elizabeth Kitto, H.T., W. Paul and Son.
Ella Gordon, H.P., W. Paul and Son.
Ellen Drew, H.P., A. Dickson and Sons.
Empress Alexandra of Russia, T., W. Paul and Son.
Enchantress, T., W. Paul and Son.
E. T. Cook, H.T., W. Paul and Son.
Ethel Malcolm, H.T., McGredy.
Exquisite, H.T., W. Paul and Son.
F. R. Patzer, H.T., A. Dickson and Sons.
Fair Rosamond, Hyb. Cli., W. Paul and Son.
Fairy, Rambler, W. Paul and Son.
Fairy Queen, T., W. Paul and Son.
Field Marshal, China, W. Paul and Son.
Flora McIvor, Briar, Lord Penzance.
Florence E. Coulthwaite, H.T., A. Dickson and Sons.
Florence Paul, H.P., W. Paul and Son.
Florence Pemberton, H.T., A. Dickson and Sons.
Floribunda, Nois., W. Paul and Son.
Fortuna, T., W. Paul and Son.
George Waud, H.T., A. Dickson and Sons.
Gertrude, H.T., A. Dickson and Sons.
Gladys Harkness, H.T., A. Dickson and Sons.
Glory of Cheshunt, H.P., Paul and Son.
Glory of Waltham, H.P., W. Paul and Son.
Golden Fairy, Pol., Bennett.
Golden Queen, Nois., W. Paul and Son.
Goldfinch, Mult., Paul and Son.
Grace Darling, H.T., Bennett.
Grace Molyneux, H.T., A. Dickson and Sons.
Grace Thomson, Mult., W. Paul and Son.
Grand Mogul, H.P., W. Paul and Son.
Grandeur of Cheshunt, H.P., Paul and Son.
Green Mantle, Briar, Lord Penzance.
H. Armytage Moore, H.T., H. Dickson.
Harrison Weir, H.P., Turner.
Harry Kirk, T., A. Dickson and Sons.
Heinrich Schultheis, H.P., Bennett.
Helen Keller, H.P., A. Dickson and Sons.
Her Majesty, H.P., Bennett.
His Majesty, H.T., McGredy.

(To be continued.)

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

October 25.—National Chrysanthemum Society's Floral Committee Meeting at Essex Hall, Strand, London, W.C.

October 26.—Royal Horticultural Society's Exhibition of Flowers, Fruits and Vegetables, Vincent Square, Westminster. Lecture at 3 p.m., by Professor G. Henslow, on "Remarkable Instances of Plant Dispersion."

Our Rose Number.—It is gratifying to know that the Rose Number of The Garden published last week is considered by many of our readers as one of the most charming productions of its kind ever offered to the public, and the issue was quickly sold out. If it has been the means of bringing still more forward the beauty of the Rose, the intense interest with which it is regarded by those who cultivate it, and spreading far and wide a deepening love for our beautiful flower, then the publication of our Number will not have been in vain. A feature that astonished those not well versed in the various phases of Rose-lore consisted of the portraits of famous Rose raisers in these isles, and we hope in the future our readers will purchase from our nurserymen, trade hybridists and general rosarians, and help forward an industry, if we may so express it, that deserves every encouragement. We are sorry that a portrait of Mr. Hugh Dickson's brother was not shown in our special supplement last week. Mr. Dickson is known to rosarians as one of the most successful of present-day hybridists, and has contributed much towards making our gardens beautiful and interesting.

Olearia insignis.—In the article on Mr. Gumbleton's garden, on page 480, Olearia nitida should read Olearia insignis.

Bedford Park Gardening Society.—The fourth annual general meeting of this natural history and gardening society for the reception of the report of the committee for the session 1908-9, the passing of accounts and the election of officers in accordance with the constitution of the society, will be held at The Club, Bedford Park, on Saturday, October 23, at 8 p.m. There will be the usual exhibition of natural history specimens, curios, &c., and members are specially invited to exhibit specimens of silver work, coloured engravings, and embroidery and lace. The committee trust that all members will do their best to send something to ensure a successful evening. Objects for exhibition should be sent to the Club between 4 p.m. and 6 p.m., but small, valuable articles may be brought at 8 p.m. A short musical programme has been arranged, and tea and light refreshments will be provided.—R. H. Read, *Hon. Secretary, Camelot, South Parade, Bedford Park, W.*

The National Vegetable Society. As very many of our readers have felt great interest in the formation and objects of this newly formed society, they will be pleased to learn that the trials of autumn-sown early spring Cabbages and autumn-sown Onions conducted, on diverse soils, by Mr. W. Poupart at Twickenham, Mr. G. Hobday at Romford, and Mr. C. Foster on Lord Northcliffe's experimental farm in Surrey, are full of promise of giving excellent results. All the varieties are known to these experimental growers under numbers, the names being known only to the trials sub-committee. These trials should have great interest, as their primary object is to ascertain commercial values, with which, in the case of Cabbages especially, earliness is of the chief importance. At a recent meeting of the committee, Mr. Foster kindly intimated his willingness to have a trial of first early Cauliflowers, the seed to be sown under glass in January, the plants being put outdoors to head in when strong. It was regarded as useless to put first early dwarf Cauliflowers, sown in March or April, against ordinary summer and autumn varieties. It is well to understand that all the society's trials are to have a further primary object—the ascertaining of the highest commercial values both of varieties and of cultural methods. Several letters were read at the meeting asking for further information as to the operations of the society. Mr. E. G. Quick of Harrow View, Wealdstone, Harrow, will gladly send to anyone enquiring a circular just issued giving full information. One letter contained a request for a lecture to be given to the Ealing Tenants Association. It was agreed to accede to the request, subject to financial conditions. The committee having resolved to hold a great national exhibition of vegetables in the Vincent Square Hall of the Royal Horticultural Society next autumn, subject to sufficient financial support being obtained, it was agreed to secure the hall for such purpose in September next, subject to the Royal Horticultural Society's conditions, and also to issue an appeal to the seed trade for offers of special prizes and pecuniary assistance. The chairman, Mr. A. Dean, undertook to issue such appeals. Still, offers will be gratefully accepted.

CORRESPONDENCE.

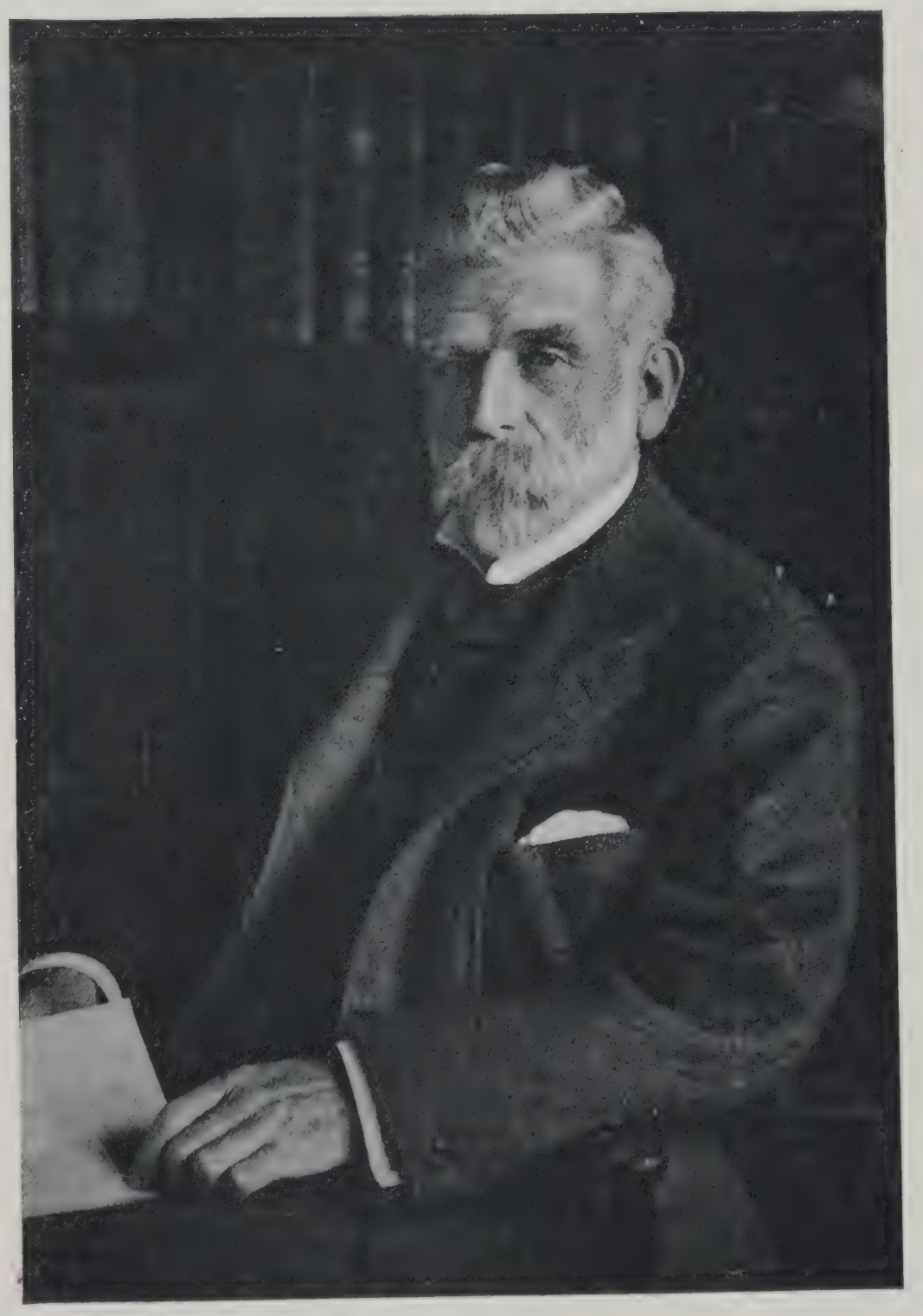
(The Editor is not responsible for the opinions expressed by correspondents.)

Dahlia Jeanne Charmet.—What beautiful flowers this old variety continues to give! Notwithstanding the bad weather we recently have had, I still have good blooms which put some of the newer varieties in the shade; the ground colour is pale mauve and each petal is finely edged with a deeper colour. It looks very fine in specimen glasses with green foliage as a background. It should be more grown.—E. F. Kemp, *Clapton.*

Curing Tobacco (In reply to a question asked by "F. P. H.")—Gather the leaves when dry and full grown, also when the plant is dry

if possible. Spread the leaves out singly in an old shed or dry place out of the sun until they become quite flaccid or soft; then procure a box, a wooden one will do, and carefully place the leaves flat one on top of the other. The lid of the box should be small enough to fit inside the box, and when the leaves are carefully placed and all used up, put the lid on and then a weight on top. I have used two bricks myself, but a square 28lb. weight is better. Watch them from day to day, and as soon as they begin to "sweat" or heat spread them all out carefully one by one; then, when they get dry, place them again in the box as before and continue to dry and pack them until they cease to sweat. The final drying must be carefully done. In curing, take a small quantity of good rum and mix with it a little new honey, according to the quantity of the leaves. Put a nice piece of clean paper, without print, in the bottom of the box, and with a small brush lightly brush over the top side of the leaf. Lay the leaves in the box, and continue this until all the leaves have been treated. Remember to only brush lightly one side of the leaf, and if the mixture is too thick add a little water to make it usable. Put on the lid, place all the pressure you can on it, and leave it in a warm room for a few weeks until the leaves become caked. Carefully remove the cake from the box and dry in the sun, after bandaging it to keep it from breaking. When dry it should be a nice golden brown, and, if carefully cut up, makes an excellent cigarette, and is also good for the pipe. This recipe was obtained for me by the late Mr. George Chambers from the West Indies. Mr. Chambers was a Tobacco broker in the City and knew the value of good Tobacco, and the present writer sampled it as often as possible. I forgot to mention that the natives in the West Indies, I am told, use molasses instead of rum and honey.
—Edward F. Kemp.

A window-sill rock garden.—The obituary notice of the late Mr. Peter Barr in your issue of October 2 mentions his window-sill rock garden, and this emboldens me to send you a short account of my own. Upon a narrow brick ledge projecting beneath the actual wooden sill of my bedroom window, which faces east, I constructed twelve months ago a rock garden whose dimensions are 4 feet by 2½ inches. It contains, however, thirty plants in seventeen different varieties—some ten Sedums, three Sempervivums, Arenaria, Pennyroyal, Mother of Thousands, and a creeping alpine bearing blue Daisy-like flowers whose name I do not know. The last-mentioned, together with two different Houseleeks, I brought from the shores of Como, several of the Sedums from Dartmoor and another from the Cheddar cliffs, and Arenaria, Pennyroyal, &c., from West Country walls, so that a glance at my window-sill serves to remind me of many happy holidays. The making of the garden was itself a fascinating process. I first cemented a row of narrow stones along the outer edge, choosing from a former collection such as were in themselves beautiful—pieces of pink quartz, grey granite, white marble, or the purple amethyst crystal found in Connemara. These, too, have all come back with me from holiday rambles. The slope of the ledge serves to drain away all superfluous moisture through the crannies of this boundary wall, within which the actual depth of soil, a mixture mainly of peat and sand, nowhere exceeds 1 inch. The little plants, however, are evidently quite at home and have completely covered the surface; and even now when their flowers are at an end the interlacing greens and greys, with here and there a touch of autumnal crimson, are a fresh joy to behold every morning, and bid fair to last throughout the winter as a pleasing foreground to the bare prospect beyond. I can heartily recommend such a garden in miniature to all lovers of the "green things of the earth."—Muriel Kenny, *Westbye, Cambridge.*



MR. WILLIAM KELWAY.

Rose David Harum.—In Mr. Molyneux's "Notes on Newer Roses" he says of David Harum: "David Harum (E. G. Hill and Co., 1904).—I think we can do without this Rose. I have grown it for three seasons and have not had a really first-class flower." This has not been my experience. I have grown it for two seasons, have had some very perfect blooms, and have exhibited it in a winning box at the National Rose Society's summer exhibition. The only point it seems to lack is size, but I have a beautiful bloom in front of me as I write which is over 4 inches across and has a nice pointed centre surrounded by beautifully reflexed petals.—W. P. Panckridge, *Petersfield.*

WORKERS AMONG THE FLOWERS.

Mr. William Kelway.

WHEREVER a love of gardening and of horticulture generally exists, the name of Kelway is a household word. On many occasions we have visited the nurseries not far removed from the quaint Somerset town of Langport, and revelled in the flowers of every kind that are spread over those many acres. It is a common supposition that the energy and foresight of this firm are directed to the improving of a few flowers—the Delphinium, Gladiolus, Pyrethrum, Pæony and others with which the name of Kelway has been closely identified for more than one generation; but this is a mistaken conception. Horticulture and agriculture are represented in the highest degree, and to roam through the splendidly maintained acres is a revelation to those who have never seen this home of flowers and vegetables placed amid beautiful and interesting surroundings. It is not of the nursery we are thinking now, but of those who in the past have controlled this great establishment and who are continuing the glorious work to-day. It is a pleasure and a privilege to add the name of Mr. William Kelway, the head of the firm, to our gallery of "Workers Among the Flowers."

Although seldom seen in these days at the great London exhibitions, Mr. Kelway carries on the same work as in years ago, and in this the help of his son, Mr. James Kelway, is abundantly manifest. The history of Mr. Kelway is the history of many a famous flower that has brought joy to the heart of the gardener, and such a mission in life as that of raising new flowers and wholesome vegetables, to bring happiness and health to the home, is one of the most beautiful and useful that one can conceive in this age of artificiality and unrest. In paying a tribute to Mr. Kelway we pay a tribute to horticulture in general, an unknown world to those whose business is outside its workings; but much of the prosperity and the comfort of the great public in this country are due to those who have worked in the past and are working in the present for the good of the community. Some will say "it is simply business." Business it is, but married to something higher than mere conventional trading. Ability, rare discernment and determination are qualities that have raised the hybridist far above the ordinary toilers in the many phases of British industry. To chronicle merely the names of the flowers and vegetables raised by Mr. Kelway would fill many pages of The Garden, and if evidence of this were necessary, those who are in doubt should consult the most practical illustrated guide, the "Manual of Horticulture," issued yearly from the Langport nurseries.

Mr. Kelway's home is filled with many treasures and surrounded by a delightful old-world garden containing flowers in groups and displaying exquisite associations of colour. Uncommon climbing plants drape the walls

among them the finest white Wistaria in the country—at least, we have discovered none to excel it in dimensions and vigour. We are in a land of flowers in Langport—flowers in the spacious acres surrounding the nursery and flowers around the home of one to whom we wish many years of happiness in pursuing a noble work, that of raising, improving and cultivating the good things of the earth.

TREES AND SHRUBS.

HOW TO PLANT AND TREAT A HEDGE.

PLANTING.—A well-grown hedge often adds an ornamental feature to the garden and is a pleasure, but a poor hedge is an eyesore and therefore detracts rather than adds to the general appearance. The land on which hedges are planted should be well prepared; it is a mistake to think that even such things as Laurels, Privet or Thorn will grow and form a good hedge without special care in this respect. Instances are rare when the common subjects mentioned will thrive for many years as hedge plants unless they are afforded good treatment from the first. Even on good soils it is much wiser to trench the soil at least 2 feet deep; while on poor, gravelly or sandy soils rotten manure, leaf-mould or burnt vegetable refuse should be incorporated with the staple. On very stiff clay road grit may be added, and at the time of planting place some light soil or leaf-mould, if available, around the roots to encourage an early and free root-action. There are many subjects suitable for planting as hedges, both evergreen and deciduous, and the intending planter can select from a nursery catalogue (or, better still, by paying a visit to the nursery) the class of plant that will suit his purpose. On their arrival from the nursery no time should be lost (weather permitting) before they are planted. If the roots are dry, immerse them in water; young plants of Thorn (commonly known as Quick), also Privet and Hornbeam, should be planted thickly in double rows. Yews, Hollies, Arbor-vitæs and similar plants may be placed thickly in single rows. Golden Yews are very ornamental and may be often used with good effect. When planting care must be taken to keep shrubs in a direct line, also at an equal distance, so that when completed a neat and uniform hedge is the result. Make the soil quite firm about the roots by treading, and keep the plants in a vertical position. Finish the work of planting by applying a mulch of manure or leaf-mould. The mulch is a great aid in the production of new roots by maintaining an even temperature of the soil, also by preventing rapid evaporation. It may be necessary to apply water should a dry spell of weather occur. When filling up gaps in established hedges with new plants, the same care should be taken to secure a good rooting medium, and in this case the necessity of frequent watering will be more apparent, owing to the numerous roots from the established plants drawing a large quantity of moisture from the soil. To ensure a well-furnished hedge of Thorn, Privet and similar plants,

Pruning must be commenced the first season after planting, and henceforth annually. At the first pruning the young plants should be cut down to within 6 inches of the ground. This ensures a free growth of young shoots from the base which will form the foundation of a good hedge. The next season these shoots should be cut to about a foot from their base if fairly strong; cut them back harder if weak; if extra strong leave them rather longer. This system of pruning should be continued annually in March until the hedge has reached the desired size. Afterwards the pruning consists of clipping the young shoots to maintain a thick growth and an impregnable fence. For the sake of a neat appearance clip twice during the season, viz., early in June and again in September, when growth is completed. Evergreens, owing to their dense growth, do not require such hard pruning, but the young shoots must be carefully cut back each autumn.

After Treatment.—To assist in a free, healthy growth an annual mulch of rotten farmyard manure is excellent, and where available should certainly be applied. Failing the manure, bone-meal has been found to produce good results, especially when applied to hedges of Yew. Give a good soaking with water before and after applying any fertiliser. Always keep the ground at the base of the plants free from weeds. Hedges growing near large deciduous trees frequently collect a large quantity of leaves at their base; these should be removed, as if allowed to accumulate the plants become choked, and the loss of some of the bottom branches will eventually be the result. On light soils evergreen

A NEW APPLE (REV. W. WILKS).

hedges, when established, will require occasional supplies of water, as owing to their dense foliage very little water will reach their roots even in the event of heavy rains. C. Ruse.

A SHRUBBY CHESTNUT.

(*Æsculus parviflora.*)

This species differs from the majority of the members of the Horse Chestnut family by being of low bushy habit and never approaching tree form, as is usual with other low-growing sorts, such as *Æ.* californica and *Æ.* Pavia. It grows from 8 feet to 12 feet high, and spreads over a considerable area by means of a succession of shoots from the rootstock. The leaves are similar in shape to those of the common Horse Chestnut, but they are thinner in texture and have a more glossy surface. The flowers are white with long projecting stamens, and are borne during August in long, terminal inflorescences, almost every branch being responsible for a head of flowers. It is a native of the South-Eastern United States, and thrives in quite poor soil, being well adapted for almost any kind of ornamental planting. W. Dallimore.

THE KITCHEN GARDEN.

NOTES ON CULINARY PEAS.

A Reason for Failure.

THERE is considerable grumbling this season among local gardeners as to the Pea crop, many of them reporting a very unsatisfactory season all through, as the pods have filled badly. I am pleased to say that I have had the finest Peas I have ever grown, and think that I am now reaping the reward for years of careful selection of varieties. The season was certainly very late, our first picking having been obtained on July 16. I should explain that we do not force Peas or start them in boxes, but just sow on a south border on the first opportunity after the beginning of February. The first dish was had from The Pilot, which gives an excellent crop and is of good flavour for an early Pea. This was followed at an interval of six days by Early Bountiful, which I tried for the first time. This produced the heaviest crop of early Peas I have ever seen, and it remained in bearing for weeks on end. I shall certainly grow this variety again. It is of very good table quality. I have always had considerable trouble regarding a second early Pea, Gradus refusing to succeed here. I have tried Edwin Beckett these last few years, but although certainly better than Gradus it still left a good deal to be desired. I was then advised to try Senator, and now I think that I have solved the problem, as this sort gave a wonderful crop of splendid Peas. The pods are not so large as some, but are closely packed with large Peas, pale green in colour, but of excellent flavour.

Boston Unrivalled, as usual, gave a splendid crop, and I would not like to be without this grand Pea. Carter's Dreadnought I tried for the first time, and consider it an excellent variety and will certainly grow it again. It is a very sturdy grower, the Peas being of a fine deep green colour and of rich flavour. Glory of Devon, as always here, gave a heavy crop of well-filled pods, and these of excellent quality. The Gladstone was probably finer than I have ever seen it here, and that is saying a good deal. I have still (September 30) a long row untouched, which is carrying a crop of large, well-filled pods.

Royal Salute is without doubt the finest of all late Peas here. I sow it at different times from mid-April till the end of May, and it never fails to give a heavy crop of well-filled pods. The Peas are very large and of the very highest table quality. From nine to eleven Peas in each pod is the average. Carter's Michaelmas I do not intend to grow again. It is an excellent Pea, but does not succeed here every year, so must go. This year it grew nearly 6 feet high and set badly. It requires a warmer district than this.

The old variety G. F. Wilson I tried again this season, and a very fine crop it has given, but the Peas are very small and rather tasteless, so I shall not trouble it again. Carter's Daisy I have left to the last, and it has certainly been anything but the least. I now grow no other dwarf Pea, and were I confined to but one variety this is the one I should select. Every year it is good, but this season it has fairly eclipsed itself. It grew fully 3 feet high and was covered with its large, straight pods. If one did not know, they would imagine, from the size of the pods, that they had been picked from some strong, tall variety. When I say that the majority of the pods contained ten Peas of a large size it will be understood the return was a paying one. This Pea is also one of the best flavoured I have tasted.

Preston House, Linlithgow. C. Blair.

THE FRUIT GARDEN.

FRUIT TREES AT MESSRS. JAMES VEITCH AND SONS' NURSERIES.

VISITORS to the Royal Horticultural Society's fortnightly meetings must all be familiar with the splendid exhibits of fruit displayed at short intervals by Messrs. James Veitch and Sons, Limited, of Chelsea. At one time it will be a magnificent collection of Gooseberries, at another a superb collection of fruit trees in pots, and again it will be a representative collection of British-grown fruits. Whatever the exhibit may be—and as our readers know, the whole energy of the firm is not devoted to fruit trees—remarkably good quality is to be observed throughout.

To exhibit such superb collections of fruit naturally means a good stock to select from, and consequently we determined to visit the fruits in their homes and see for ourselves what the firm is doing in the way of raising young trees. Two extensive nurseries are largely occupied by young fruit trees, one at Langley in Bucks and the other at Feltham in Middlesex. It was to the former that we journeyed first, a short, rapid and easy trip on the Great Western Railway from Paddington landing us at Slough, whence the nurseries are easily reached. The first glimpse well repaid our visit, and the model fruit storing-house situated here is well worth going to see. However, fruit trees were our object for the day, and no time was lost in getting to work. And now comes a difficult task. To describe all we saw would easily fill one issue of The Garden, and we wish space permitted of a longer notice on this occasion. We should mention that stone fruits are not grown at Langley owing to the soil being too strong; these are grown at Feltham, and will be referred to later.

Trained trees of all kinds, sizes and shapes, are a great speciality of the firm, and we inspected thousands of all shapes and sizes, from the tiny maidens just undergoing their first training in the way they should go to monster fruiting specimens that would cover a 14-feet run of wall or fencing at once, these being perfect in every way. As they are lifted and replanted every other winter, they will move well, and where a gap is caused that it is desired to fill at once, these are the trees to do it with. In addition to the trained trees, large fruiting specimens of standards, half-standards, bush and pyramid forms can always be supplied by the firm. Then there were the single, double and triple cordons of Apples and Pears to be seen by the thousand, many of them carrying good crops of first-class fruit.

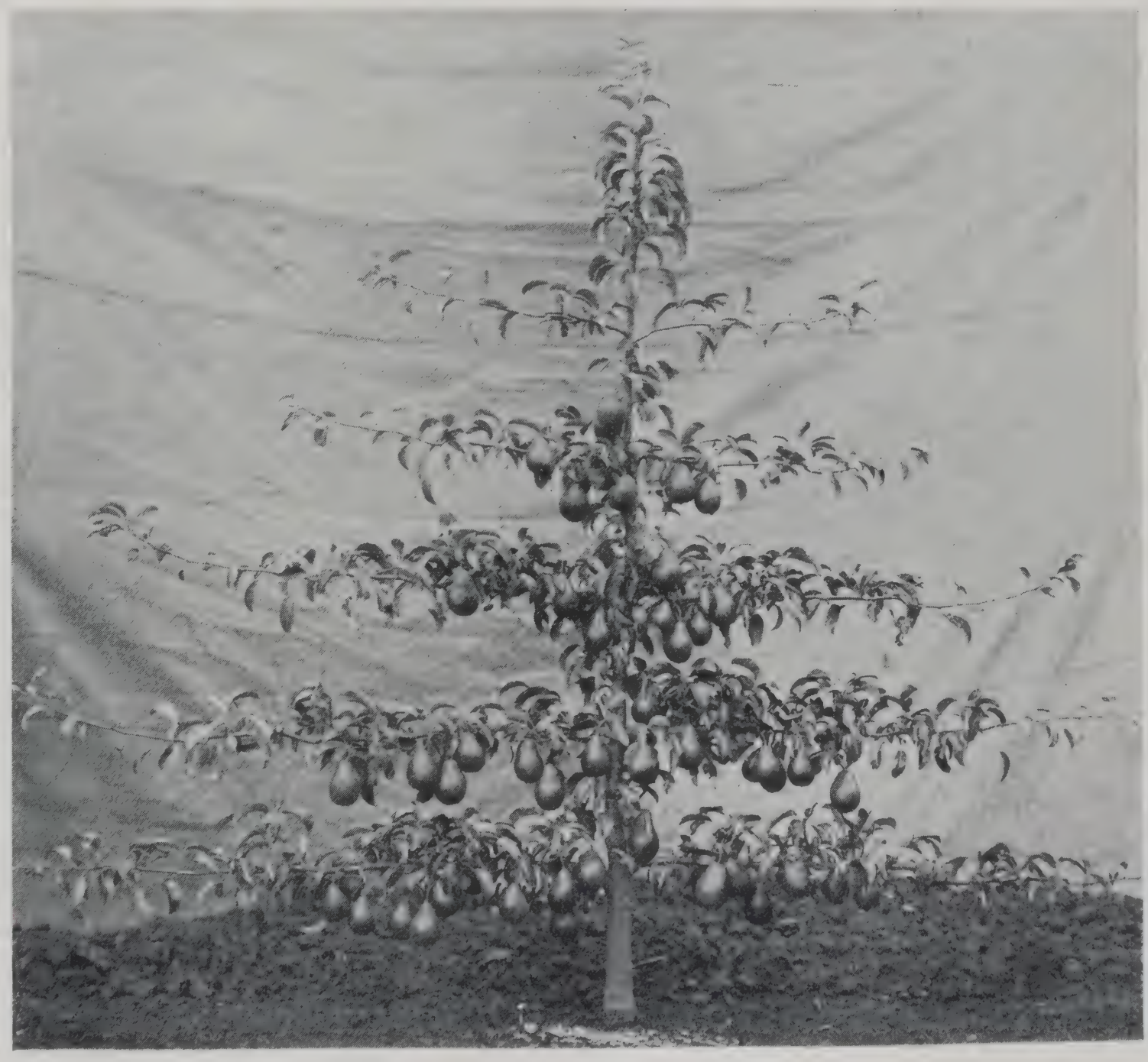
Apples and Pears in pyramid form on dwarfing stocks next claimed our attention and fairly captivated us. Of the Pears, we noticed some pyramid trees carrying really wonderful crops of fruit, and one little tree of Louise Bonne of Jersey, 3½ feet high, had no fewer than thirty-three large and almost perfect fruits depending from its branches. It must suffice if we say that Messrs. Veitch have here trees of every variety that is worth growing; it would take up too much space to enumerate them. Of Apples, however, we must mention one or two of the firm's novelties. Feltham Beauty is a first-class early variety that no garden worthy of the name can afford to be without. It is ready for eating in August, and is without doubt the best early Apple we have. The fruits are of medium size, have yellow flesh and skin striped with red, and the flavour is sweet and brisk and far more pronounced than that found in any other early Apple. Its parents were Mr. Gladstone and Cox's Orange Pippin. The Rev. W. Wilks is a new culinary variety that Messrs. Veitch brought out last year, and is, undoubtedly, a wonderful cropper. Peasgood's Nonsuch and Ribston Pippin were its parents, and while it possesses the large size, vigorous habit and free-cropping qualities of the first-named, it has also inherited a good amount of the flavour of the latter. Trees grafted a year ago last March were carrying in nearly every instance five or six wonderful fruits, and larger specimens were bearing in like proportion. We need only mention that both these varieties have secured awards of merit from the Royal Horticultural Society. Bramley's Seedling, Bismarck, Langley Pippin, Ribston Pippin and that grand old Apple Blenheim Orange were all fruiting splendidly where worked on the Paradise stock, notwithstanding that the trees were only three or four years old. Frogmore Prolific is a splendid cooking Apple and a remarkable cropper. When baked the fruits are excellent.

Of Gooseberries there were trained bushes galore, single, double and triple cordons and standards of these being a great speciality of the firm. Messrs. Veitch have several times staged a collection of 100 varieties before the Royal Horticultural Society, and this may, perhaps, give our readers some idea of the extent to which these are grown. Hundreds of thousands of bushes of these and Currants we saw, and not a trace of big-bud could we discern in the Black Currants. We might mention here also that, although we specially looked for it, we could not find a trace of any disease or insect pest of a serious character in any of the fruit trees, a fact that is really extraordinary where so many are grown. Strawberries are grown extensively, and large quantities of strong plants layered in pots and runners from the open ground were being despatched to all parts.

Medlars and Walnuts are sometimes wanted, and it is not always that one knows where to obtain good trees. At Langley Messrs. Veitch have some grand trees, large specimens of Walnuts that are warranted to transplant well, and standard Medlars with stems as straight as a gun-barrel and almost as sturdy.

A unique feature at this nursery is the number of young Apple trees on which Mistletoe has been induced to grow. Anyone desirous of obtaining this interesting plant parasite can therefore secure it, host and all, a fact that many of our readers will probably like to know.

At Feltham we were especially concerned with the stone fruits, such as Peaches and Nectarines, Apricots, Plums, Cherries and also Figs and Vines, all of which are grown in prodigious quantities. In addition to the above-named kinds, Apples and Pears are grown in pots at



TREE OF PEAR LOUISE BONNE OF JERSEY.

these nurseries, and we saw thousands of pot trees for orchard-house culture in the very pink of condition and in all stages of their career. In the houses the Peaches, Nectarines and Apricots were a sight long to be remembered. All the best and latest varieties were included, and pyramid as well as large, fan-trained trees for the walls and ends of houses were to be seen.

To the large house of Figs we cannot give enough praise; certainly we have never seen a better lot anywhere, and considering the quantity grown this is saying a great deal. Like all other kinds, every good variety is stocked, and trees of almost any shape can be obtained, from tall standards to tiny dwarfs. The Vines, too, were a splendid lot. Long, stout, well-ripened canes were the rule, and if they do not succeed when planted in their permanent quarters it will not be due to any fault of the firm.

Outdoors the trained trees of Peaches, Nectarines, Plums, Cherries and Apricots were perfect, and, like the Apples and Pears at Langley, were to be seen in all sizes and many shapes. Cordon Plums and Cherries, and Nuts, Mulberries, Loganberries and other fruits were all finding a temporary home here, from which they will doubtless be ousted before long to find a permanent situation in gardens far apart and in greatly varying climes.

After a long and exceedingly interesting day, and as we were leaving Feltham, we were led to ask ourselves the question, What does it all mean, this enormous production of fruit trees that goes on year by year at these and other nurseries? and the only answer to it is, we think, that there is year by year a greater interest being taken in all branches of gardening by rich and poor alike, and, consequently, an ever-increasing demand for fruit trees and other subjects. The fruit catalogue published by Messrs. Veitch, which we believe can be had post free, gives full particulars of the fruit trees here briefly mentioned.

FRUIT NOTES.

CORDONS—SELECTIONS OF VARIETIES.—It was suggested towards the conclusion of the last notes on this subject that the buyer might advantageously leave the selection in the hands of the nurseryman; but as there are many growers who prefer to specify their own varieties, it will be useful if a few of each of the leading kinds are named. It must be perfectly understood at the outset that these are not necessarily given as the best that can be chosen; they are undoubtedly good and reliable, but additional selections of practically equal merit could be easily compiled. All are suitable for single, double or treble stemmed plants, the first-named giving, as a rule, the finest fruits.

APPLES.—A serious trouble which faces one who commences to make selections is to know how many varieties of a kind shall be decided upon, since it is practically impossible to find two gardens in which the requirements are identical. It has been decided to enumerate dozens and half-dozens of each of the most important kinds; in the possible event of any reader wanting fewer or more varieties, if he will write to the Editor definitely stating his needs the information will be promptly forthcoming. Taking dessert Apples first, a fine set of six might consist of Beauty of Bath, Cox's Orange Pippin, Worcester Pearmain (not first-class in flavour, but splendid in appearance and absolutely reliable), King of the Pippins, Hormead Pearmain and Fearn's Pippin. These will give the grower a long season of use, provided that those which will keep, such as Hormead Pearmain and Fearn's Pippin, are allowed to hang long on the trees, and are then gathered carefully and stored in a suitable place. For cooking purposes Stirling Castle, Frogmore Prolific, Lord Derby, Potts' Seedling, Royal Jubilee and Warner's King are excellent.

PEARS.—As these do not thrive as well as Apples in the majority of gardens, and in any case are not so serviceable, it will scarcely be necessary to name more than six varieties, especially if these are chosen with a view to a very long season of use, as well as for their flavour and appearance. It may be well to arrange them in their order of ripening, so that those who only desire to have three sorts can simply reduce the number and still have a satisfactory selection. For half-a-dozen, then, preference might well be given to Jargonelle, Williams's Bon Chrétien, Emile d'Heyst, Doyenné du Comice, Marie Louise and Glou Morçeau or Josephine de Malines. If only three were required, the choice might be the second, fourth and fifth named, if these gave a long enough season to please the grower. For grand fruits Pitmaston Duchess must be grown, but the flavour is nearly, if not quite, third-rate. It should be noted in the case of the earliest Apples and Pears that they lose their flavour almost as soon as they are taken from the tree, and they should, therefore, be gathered for immediate use if their finest qualities are to be appreciated.

PLUMS.—Speaking generally, these are not as suitable for culture in cordon form as either of the kinds to which attention has already been drawn, for the simple reason that the repressive measures that are imperative in this phase of culture are apt to be resented by stone fruits. It is, however, possible by especially good management to secure satisfactory crops; but wherever it is possible to afford the wall space, one should always give the preference to fan-shaped trees as being more reliable and easier to manage at all seasons of the year. Six superb dessert Plums are Belgian Purple, Bryanston Gage, Coe's Golden Drop, Jefferson's, Reine Claude de Bavay and Denniston's Superb. For cooking, Czar, Emperor, Pond's Seedling, Victoria, Monarch and Diamond may be recommended. Victoria, which is the best general-purpose Plum we have, may prove the most difficult as a cordon.

GOOSEBERRIES AND CURRANTS. Six Gooseberries for flavour are Early Sulphur, Red Champagne, Pitmaston Green Gage, Langley Beauty, Langley Gage and Golden Gem; while for cooking, Keepsake, Whinham's Industry, Lancashire Lad, Whitesmith, Warrington and Antagonist are splendid. Warrington is especially useful for hanging late on north walls. Two good Red Currants are Raby Castle and La Versaillaise, and a good white is White Dutch. Black Currants are not, of course, suitable for this system of culture. FRUIT-GROWER.

APPLE BISMARCK.

THE PLANTING OF A NUT WALK.

[*In Reply to Mrs. J. H. S.*]

THE position being an exposed one, we advise that a double row of trees be planted. They will protect each other and the bushes will develop to a much larger size in far less time than if planted in single rows. A good width for a Nut walk is 9 feet, and the trees should be planted 8 feet apart each way. The ground where the trees are to be planted should, if possible, be trenched 2 feet deep, and if a good dressing of manure can be added at the same time it will be a great advantage. The young trees when received from the nursery are usually a single twig about 15 inches high. These twigs should not be cut back the first year, but each of the new shoots made by them the following year should be cut back to half its length in the autumn or winter, in order to induce the trees to put out more branches and thus become good-sized bushes in a short time. Future prunings will consist in cutting the shoots of the previous year's growth in the same way, also cutting away weak and dead growths. A Nut tree should never be allowed to become a dense tangle of growth, or it will bear scarcely any fruit.

In pruning it is important to prune so that each of the terminal growths of next year which emanates from the cut shoot shall start from a bud pointing outwards and not inwards. T.

THE FLOWER GARDEN.

DAFFODIL EFFECTS.

THE water scene at Wolfeton House, Dorchester, illustrated below, gives an excellent idea of the beautiful effect that can be produced by a bold and well-thought-out planting of Daffodils. It is an old pear-shaped "pond" some 150 yards long by from 4 yards to 10 yards at the narrow end and from 14 yards to 20 yards at the wider part. In all probability it dates from pre-Reformation times, and is one of the old fish ponds that have, fortunately for their present-day owners, escaped destruction. Bacon in his celebrated essay contrasted "Fountains and Ponds," and thought the former "a great beauty and refreshment," whereas the latter "mar all and make the garden unwholesome and full of flies and frogs." I fancy there are many who will scarcely agree with this dictum of the great essayist, and will put up with any number of flies and frogs to have such a beautiful spot in their grounds as that which Mr. Albert Bankes has in his at Wolfeton House. It must give him more real pleasure to be able to take his friends along the pretty gravel walk round his "pond" when its dainty necklace of Daffodils is all aglow than if he had some "high or massy fountain" or "some pyramid of marble," where he could suddenly turn on a hidden tap and "make the water to play upon the ladies and others who are standing by and give them a thorough wetting." It must, however, in fairness to Bacon, be borne in mind that the latter half of the sixteenth century was the time when "water works" had run mad, for, doubtless, even the greatest minds are to a large extent influenced by the all-prevailing fashion of the time in their judgments. But to return to our pond. The Daffodils are planted in a 4 feet grass border. A large number of Crocuses have been planted among them to give an earlier bit of colour. Originally there were only yellow ones; but now they are mixed with white and purple for succession. Nothing is done to the border except to mow the grass about once in the summer when the leaves of the bulbs have died down. Every year they multiply and improve. As Mr. Bankes thinks, they evidently like the moisture of the pond. Wet feet suits them. This may be helpful to those who have similar bits of water which are doing nothing.

The photograph of the "pond" at Wolfeton House is one of Messrs. Hills and Rowneys of Dorchester, and along with three or four more of the same piece of water is published in the Beauty Spot of Dorset series. JOSEPH JACOB.

SWEET PEAS AT GREAT RYBURGH.

IT was my pleasure and privilege to be able to make a short visit to Messrs. Stark and Son's nurseries at Great Ryburgh in August, and I was more than delighted with my pilgrimage. Lovers of Sweet Peas will not need to be reminded that this firm has already made itself famous in the Sweet Pea world by distributing several varieties of conspicuous merit, but there are better things to come. George Stark and George Stark Improved are magnificent scarlets, and the latter will be guaranteed to give superb waved flowers, while the ordinary form will give equally brilliant colour with perhaps rather smaller size and not the same reliability as to waviness. Hereward is the best waved cerise that I have seen this year, and it is certain that it will become immensely popular and completely oust Coccinea from our gardens. Mrs. Duncan is a glowing crimson of the largest size, and the flowers are of splendid form. As far as I could see it does not burn in the slightest degree, and will, therefore, be especially welcome. Florence Wright is a beautiful white of the finest size and substance. It does not belong to the popular waved section, but has large, solid, white, smooth standards that will make it supreme as a garden Sweet Pea and ensure it a place on the exhibition board.

In addition to these there are all the leading varieties in the Great Ryburgh collection, and one can safely assert that there are no healthier or better Sweet Peas being grown for seed in this country at the present time. Mr. Arthur Stark is the leading spirit among the Sweet Peas, as, indeed, he is in the entire seed and nursery department of a great business of which his father, Mr. George Stark, an old professional gardener, is the head. SPENCER.

THE EDITOR'S TABLE.

THE CLIMBING MONKSHOOD (ACONITUM VOLUBILE).

Mr. Bently, Ditton Hill, Surrey, sends flowers of this interesting Monkshood with the following note: "Aconitum volubile is a rare, handsome herbaceous twining species, freely producing pale blue flowers in September and October. It is quite distinct from any other Monkshood, the growth coiling around a stake similar to a common Hop or Polygonum baldschuanicum. It is of easy culture, growing well in ordinary garden soil enriched with manure, and is best planted in late autumn or early spring. It is a very good subject for poles, pergolas, &c.; height, 10 feet. The specimens sent are from plants growing in Messrs. Barr and Sons' Nurseries, Surbiton."

DAFFODILS BY PONDSIDE AT WOLFETON HOUSE, DORCHESTER.

ALMOND FRUITS.

Having an invitation to visit a friend's garden and seeing all I could of interest, I came across the Almond, or Amygdalus sinensis, in fruit, which a short time ago caused a lot of discussion in your valuable paper, THE GARDEN. Being a great reader of the same, I thought I would take the liberty of sending you a branch for your table, which the gardener was good enough to give me. I may state that the tree is about 13 feet high and well sheltered by other trees and shrubs; there is a fine crop of Nuts on the tree this year. The gardener tells me it fruits every year; the tree is growing close to the town. I may also state that we have some fine trees of the Almonds in our parks at Preston, but I have not seen any fruit on them.—S. BIDWELL, *The Gardens, Broughton Lodge, Broughton, near Preston, Lancashire.* [We thank our correspondent for sending a number of Almond fruits collected in the district. There, however, appears to be some misapprehension regarding the name, as the tree is referred to as Amygdalus sinensis; it is really Prunus Amygdalus, but it is sometimes called Amygdalus communis. It is a very popular tree in the vicinity of London and many South of England towns, but is less frequently met with in the North. Although good crops of fruit occur fairly regularly in the South, they are more uncommon further North. Efforts have been made to popularise the tree for planting in orchards in the Southern Counties for the sake of its fruit, but hitherto with no success, as people are afraid that the venture would not pay, as the fruits can be imported so cheaply. It is, however, rather strange that those who grow the tree for its ornamental attributes do not make some use of the kernels, for the majority of cultivated trees bear sweet fruits. The reason for them not being used may be that people are afraid of them being the unwholesome variety, and there is really no way of telling the trees and Nuts apart except by the taste; the wholesome ones are sweet and the others bitter. Children appear to suffer no qualms on this point, for any Almond seems to be considered quite good plunder. The decorative qualities of the Almond, however, make it one of the most useful of all flowering trees. Large trees 40 feet high, with trunks upwards of 1 foot in diameter, are sometimes met with, but more frequently they are found about half that height. It rarely happens that they do not blossom well, while about one year in three an enormous quantity of flowers are produced. There are many varieties, the chief differences being noticeable in the size and colour of the flowers and in the fruits.—ED.]

SWEET PEAS FROM CUMBERLAND.

Mr. H. Ballem, The Gardens, Newton Manor, Gosforth, Cumberland, sends a few varieties of Sweet Peas, viz.. Queen Alexandra, Paradise, Earl Cromer, Helen Lewis, Henry Eckford, Helen Pierce, Lady Grisel Hamilton, Primrose Spencer, Mrs. Walter Wright, White Spencer and Queen of Spain. The flowers were exceptionally fine.

GARDENING FOR BEGINNERS.

WEEKLY WORK AND THE FLAG IRISES.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—In many flower gardens herbaceous borders have been formed during the past few years, and very charming indeed they are. I know of one garden owned by a very rich gentleman; but there are no elaborate designs of flower-beds filled with formal lines and groups of Zonal Pelargoniums, Calceolarias and other similar kinds of summer bedding-out plants. Many of the usual kinds of summer-flowering subjects are there looking quite in place every year, but the real charm of the garden lies in other subjects; for example, in one part there are long borders filled with old-fashioned flowers, such as border Carnations, Pinks, Lavender (huge bushes of the latter), Mignonette, Phlox, &c. Then there are beds filled with miniature and Moss Roses, others with Hybrid Perpetuals, and still more with Hybrid Teas. All these borders have as a background flowering and ornamental-leaved shrubs. Now, I would like to say that this garden is not an old one; no, it is only a few years old, but it looks like an old garden already, and it possesses a never-ending charm. Thousands of readers of THE GARDEN who contemplate some alterations in their gardens, so as to add new features, may take a hint from the foregoing reference to this rich man's garden, which is, in reality, a huge cottage garden. Where new herbaceous borders are to be formed, the ground must now be deeply trenched and enriched with manure if it is poor. Continue to plant bulbs.

Vegetable Garden.—Mushroom-beds must be made up without any delay now. Collect the manure from the stables every morning and spread it out thinly on the floor of an open shed, so that the rank gases can readily escape and to prevent burning while waiting to collect a sufficient quantity. It is not advisable to remove all the straw from the manure; all the short straw may be left in, and tree leaves may also be mixed with the manure when forming the hot-bed with much advantage. The manure must be turned over every morning when fresh is added to it, and twenty-four hours before making up the bed throw up the whole of the manure into a conical-shaped heap. At the end of the twenty-four hours spread out the manure again, when all the rank gas will at once escape and the material will be sweetened. The caterpillars have quite ruined the Broccoli, Savoys and Brussels Sprouts in many town and suburban gardens. The work of destruction has been much more complete in the gardens in question than in those in country districts. Where the caterpillars have commenced to eat away the leaves, I advise inexperienced cultivators to hand-pick them. Where the pests are too numerous for this to be effectual, shake the plants violently and so dislodge the pests, and then scatter dry lime on them under the plants.

1.—SECTION OF AN OVERGROWN CLUMP OF THE GERMAN OR FLAG IRIS.

Fruit Garden.—The Japanese Wineberry is a very free-fruiting plant, grows rapidly and is extremely ornamental grown on pillars, pergolas or arches. The old fruiting canes must be cut out, and also those of the Loganberry, just as are the canes of Raspberry plants. Weakly shoots of the current year's growth must also be removed; but as the annual growths are much stronger than those of the Raspberry, more space must be left for the retained canes to develop in. Kentish Cob Nuts and Filberts should be carefully harvested if the work has not already been done. Many fallen Nuts will be found among the leaves on the ground under the trees, and all must be gathered and stored when properly dried.

Greenhouse and Frames.—Plants of Libonia floribunda should be given the lightest position in the greenhouse, so as to cause a rich colouring in the flowers. Judicious feeding with weak doses of clear liquid manure, and soot-water given alternately with clear waterings twice each week, will prove very beneficial. Solanums bearing berries may be treated in a similar way. Plants recently placed under glass should be examined and all fading leaves removed. There is more moisture in frames at this season, naturally, than in summer-time, so that it would be of some advantage to put boards on inverted empty flower-pots to form a dry stage for the plants now growing in the frames. Mignonette in pots may be transferred to shelves in the greenhouse, in which position the plants usually do well in the depth of winter. B.

INCREASING THE FLAG IRISES.

THE Flag or German Irises are so well known to all who value a hardy flower garden that they have come to be regarded as quite indispensable where pretty floral pictures are desired in the early summer. It is a matter for regret that the German Irises, which are better known to the botanists under the name of Iris germanica, are not more frequently seen in the better positions of our gardens. It cannot be denied that the plants will thrive almost anywhere and in almost any position. At one time it used to be said that this subject was more especially adapted for forming groups at the edge of a small stream or lake; but this is narrowing down their uses to an unjust degree. Their uses are endless. They make a pretty picture when grouped in beds or borders and on the margins of shrubberies, and as a plant for the town garden they are unsurpassed.

The Flag Irises should be planted either in October or March, whichever period is the more convenient. There are growers who have prejudices one way or the other; but if quarters of a suitable kind are available I would not hesitate to plant in either season. An important point to remember is to plant in nice mellow soil that was manured in the previous season. On no account use manure of a fresh kind when planting, as this is against the best interests of these plants and may lead to failure. Any ordinary garden soil will suit them; but where special pains are taken to give them more than ordinary attention in this respect, the results will fully justify the extra care taken for ensuring their well-being.

2.—PORTION OF A DIVIDED ROOT SHOWING TWO GROWTHS THAT MAY BE DIVIDED AGAIN AND THUS MAKE TWO PLANTS.

Plants left undisturbed for a few years develop into huge pieces, so that a duty is imposed upon the grower of lifting and replanting them every few years. An interval of not more than three or four years should be observed in lifting and replanting, and by these means the plants may be maintained in good form and the different varieties increased quite easily.

This may be done either in autumn or the spring. We are, therefore, in a position at the present time to deal with plants needing division, and beginners who have a few over-large clumps in their gardens may proceed forthwith to lift and divide them. It is not by any means a difficult process; and to assist those who know little how to proceed, a portion of an overgrown clump is shown in Fig. 1. Note the knotted character of the rhizomatous roots, which seem to indicate, in no uncertain fashion, their need for more room. While the plants would continue to grow and flower in this crowded condition of their roots, they would do far better when lifted and divided. The roots divide with the greatest ease, and may be pulled apart into sections such as are represented in Fig. 2. Here, it will be observed, there are two growths that it would be unwise to plant just as they are represented; they will bear dividing again, thus making two pieces of this one portion.

To enable the beginner to appreciate the varied character of the rhizomes (divided roots), there are portrayed in Fig. 3 three distinctly different pieces, showing the curious formation of the rhizomatous roots.

Before commencing to plant the divided pieces, group those of a size together; this is better, as more even clumps will develop when pieces of even sizes are planted together. The divided pieces should be planted where they are to flower, but care should be taken to keep the rhizomes or root-stalks as near the surface as possible. Deep planting must be avoided, as the Flag Iris is a surface-rooting plant. I prefer to plant in small clumps or colonies in the hardy border, observing the rule to plant as indicated in Fig. 4. Here, it will be observed, ample space is left for future development, so that a mass of blossoms and a grand clump are ensured for a few years. D. B. C.

LIFTING AND STORING BEETROOT.

Beetroot must not be allowed to remain in the beds to get frozen; but it is unwise to lift and store it too soon. All the roots must be so treated that they will retain their juices. Violent pulling of the roots from the soil must be avoided. When this is done the tops are unduly bruised and the roots are scratched; thus bleeding occurs and loss of colour. I prefer to store Beetroot in sand; it closes tightly upon the roots and excludes air; the sand remains cool and does not heat, neither does it contaminate the roots. The latter should be lifted by means of a strong garden fork, with which the soil should be removed from the roots. Twist off the tops 3 inches above the crown. If cut, the sap-vessels are left open and bleeding may be excessive. Pack the roots in layers in sand in a cool shed; have the tops and the crowns just free of the sand. The heaps may be long and narrow, tapering to a point from a 3 feet wide base, or pyramid-shaped. If severe frosts occur, cover the heaps with mats or straw. It is a good plan to grade the Beetroot—that is, to place the small ones in one heap, the medium in another, and the largest by themselves; then when required they can be used accordingly.

HOW TO MANAGE STOVE PLANTS.

When an inexperienced person takes charge of a number of stove plants at this time of the year he is undertaking a big responsibility. These plants require very careful treatment throughout the winter months. We will suppose that the plants, of which Crotons and Dracænas are good examples, possess handsome, healthy leaves. Now if the temperature be allowed to get very low, if too much ventilation be given in cold weather, if too much cold water be applied to the roots, and frequent syringings in cold weather are practised, many basal leaves will actually fall off the plants, and others will assume a yellow, sickly appearance. Of course, in order to manage the plants successfully these mistakes must be avoided. I will here give a few brief hints in the matter, which will prove very helpful.

In the first place, the temperature, from fire-heat, must be kept at from 60° to 75° during the daytime. If the weather is very cold, a temperature just above 60° will be most suitable; if the weather is somewhat warmer, then the maximum temperature from fire-heat must be maintained. The rule should be not to force the plants much in cold weather. The night temperature should range from 58° to 65°. Ventilation during cold, dull weather would prove very harmful to the plants. If the sun shines brightly and the temperature outside is high for the season, the top lights may be opened about 1 inch, or at the most 2 inches, between the hours of 10 o'clock and noon. In rather warm weather a midday damping of the stages and the floor of the house would be beneficial; but on ordinary days one damping of the floor at 9 o'clock in the morning will be sufficient. All water must be of the same temperature as that of the house, and the watering necessary must be done early in the forenoon. Liquid manure and artificials should not be applied at this season by the beginner; clear water only is the safest. Shamrock.

3.—THREE DISTINCTLY DIFFERENT DIVIDED RHIZOMES OR ROOT-STALKS, SHOWING THEIR VARIED CHARACTER.

THE TOWN GARDEN.

Some persons do not like to see the autumn approaching in the garden, as they regard it as the end of all flowers. A fine old amateur gardener once remarked to me, "I always feel depressed when the summer flowers have all gone." Now, I am quite sure that there are thousands of amateur gardeners who feel the same. Personally, I like the autumn-time, though I feel regret at the passing of so many lovely flowers; but I try to take a new interest in the garden. Even a bare patch of soil interests me. In my mind's eye I see that patch covered with beautiful spring-flowering plants, and at once set about the work necessary to that desirable end. I like to make improvements in various ways. These cannot be done all at once; time is required; and so I welcome that period which will enable me to prepare for those necessary improvements. I take much pleasure in carrying out the details of the work as well as in the actual fruition. It is a pleasure to look forward to a treat in store; and I am very sure that it is this looking forward with pleasant anticipations that constitutes a lot of the interest that we, as gardeners, take in horticulture generally. I am also sure that I am not alone in looking at things connected with the garden in this light. There are thousands of readers of The Garden who view matters in exactly the same light. It is very nice indeed to have the charming flowers of summer near us, and it is, no doubt, good for us that we can only enjoy them during one season out of the four. If we always had summer and its flowers, we should, very probably, tire of it all; but we are rich in having three other seasons, each with its special features, and this

4.—HOW THE DIVIDED PORTIONS SHOULD BE PLANTED. NOTE THAT THEY ARE PLACED WELL APART.

constant change keeps alive our interest and love of the garden.

I am sure that there are many readers who are now contemplating making a new start in the gardening line imbued with the idea that they will succeed next year where they failed this. A spirit of this kind leads to success.

The Greenhouse.—The garden may not be large, but it may contain many features of interest. At the present time the greenhouse in it will claim a lot of attention. I have seen many small greenhouses, practically empty during the summer months, unduly filled in the autumn. It is a wrench to part with our favourite plants, but if we overcrowd them in the greenhouse in winter-time we run a grave risk of losing some of them and crippling others. I would not hesitate to sacrifice some of the space in the path and devote it to the accommodation of the plants rather than overcrowd the latter. Furthermore, it is a good plan to fix a few extra shelves and to extend the stages temporarily with the same object in view. While it is too wet to do work outside, the work of cleaning plants and suitably arranging them in the greenhouse may be proceeded with. Then there are bulbs to pot for succession, batches of flowers both for the embellishment of the greenhouse and the dwelling-house.

Climbers.—The season has now come when it is advisable to plant permanent climbers to cover walls, fences, arbours, trellises and pergolas. In each case a good choice should be made, so that there will be no need to replace the plants at the end of another year on account of their unsuitability to the position. Rapid-growing climbers, such as Bridgesia spicata (which is a capital plant for covering a north wall in the place of Ivy), must have ample space to grow in. Very often the mistake of too close planting is made, and the result is seen afterwards in the entanglement of the branches of different kinds. A wall with a south or south-west aspect may be made to look very charming if a collection of flowering plants are trained on it. Clematises, Honeysuckles, Wistarias, Roses and similar subjects are always interesting, and walls covered with them give an added interest to the whole garden. Always put in some good loam for the plants to root in, and make the soil firm around their roots. It is advisable to get as much variety as possible amongst the climbers, and not place one's whole faith in the Virginian Creeper or Ivy. Avon.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Flower Garden.

FLOWER-BEDS.—Owing to the long spells of damp and almost sunless weather, flower-beds in some parts will not be so bright and gay as they have been in some seasons during the early part of October. Constant attention is necessary to make the best of matters by keeping the injured flowers and leaves removed, so as to give as good an effect as possible till they are cut off by frost, &c. At the same time valuable and tender plants should be lifted and potted before they are injured. It is not safe after this date to allow them to remain in the beds.

Heliotropes and Fuchsias.—If these are taken up and potted (after they have recovered from the shift), they may be wintered in a moderate temperature. The latter under stages free from drip will keep very well till spring.

Bulbs.—Keep on with the planting of these, so that they may get well rooted before the ground becomes too cold. Attend to staking and keeping tidy all kinds of Asters and other late-flowering plants, the flowers of which will prove exceptionally useful where large quantities are required. As soon as the beds are cleared of summer occupants, lose no time in preparing them and planting with Wallflowers, Polyanthuses, Forget-me-nots, Alyssums, Aubrietias, bulbs, Pansies, &c. If a little manure is dug in with a dressing of soot at this season, for many plants next summer very little further preparation will be necessary. Large shrubs and trees may now be removed and planted again at once if so desired, and with every success when done properly; but in all cases of early transplanting, care should be taken to keep the foliage moist in dry weather, especially large specimens.

Fruit Garden.

Gathering Fruit.—Attend to the gathering of late Plums. Coe's Golden Drop, one of the best for dessert, should be gathered when perfectly dry and taken to an airy fruit-room, where they will keep sound and fresh for several days. Keep on gathering all midseason Apples and Pears, but very late sorts should be left on the trees till the last. Such fruits will keep much better than if gathered a trifle too soon.

Vegetable Garden.

Carrots.—These should now be lifted and stored for the winter, also the more forward Turnips. I know of no better way than by taking up the roots, leaving the tops on and placing them side by side in trenches in some out-of-the-way place in the garden, where during severe weather they can be lightly protected with a little strawy litter. In this way they take up but little room and keep sweet and crisp till late in spring.

Seakale.—Remove the greater part of the foliage and gradually expose the crowns to more light to give them a better chance to ripen. For early forcing a portion of the most forward crowns may be taken up and laid in coal-ashes till they are wanted. Collect all horse-manure possible for making up beds for Mushrooms; it is essential to get together as quickly as possible enough to form one bed, and this should be repeatedly turned until the rank heat has declined. In making beds the manure should be sweet and rammed very firm indeed. Spawn the bed when the heat has declined to 85° and case with 2 inches of good loam made firm with the back of a bright spade. With a temperature ranging from 55° to 60° Mushrooms ought to appear in six to eight weeks.

H. Markham.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

Conservatory.

Beds and Borders forming the rooting medium of various climbing plants will require copious supplies of water once a week while the weather keeps warm and bright and growth and flowers continue. Camellias, whether planted out or in pots or tubs, will benefit by receiving weak applications of liquid manure occasionally, and at no time should the roots feel the want of water, or dropping of the buds will follow. Roof climbers that are past flowering may have a portion of the season's growth cut away, doing this by clearing off weakly shoots or others that are old and consequently past their best, and leaving those selected to form the future plant as much as possible in accordance with its natural style of growth.

Insects.—Should these have obtained a footing, clear them out at once. Aphides are easily got rid of by vaporising, but scale and mealy bug give more trouble, according to the plants which they have attacked. Camellias, Oranges and many others with stout foliage may be drenched with a concoction comprising a wineglassful of paraffin to a gallon of soft water, taking care to keep this stirred while in use. More tender-leaved plants are best treated with one of the many insecticides now advertised for the purpose. Where possible, turn the plant while being cleaned upon its side, so that the liquid is kept from the roots, or in the case of those planted out a sheet of canvas or other contrivance will answer as well.

Fruit Houses.

Storing Plants.—Where not already done, preparations must now be made for accommodating the several species of plants, Chrysanthemums in particular, that passed the summer in the open air. In the great majority of gardens this must be done in fruit houses whence the crops have been gathered. No objection to this course can be advanced providing due consideration is given to the trees; but to divest these of large quantities of wood and foliage while yet in vigorous growth, for the purpose of admitting the necessary light for the well-being of the plants beneath, is injurious.

Vines.—Reduce the laterals in length, but from four to six fully developed leaves should be left on each, and the borders, if dry, be moderately watered. Peaches and Nectarines may have much of the older wood and all surplus shoots pruned away, after which any shoots of the current year that are required to properly furnish the trees should be lightly tied in place. When finished an even spread of foliage all over the trellis should be presented, and on no account should this be forcibly removed by a Birch broom or otherwise. Water applied to the roots and heavy syringing overhead will tend to the well-being of the trees and assist in the ripening and development of the buds for next year's crop. Boards, if at hand, should be laid upon the borders to receive the plants, and the same used as pathways to avoid damage being done to the roots near the surface.

Orchard Houses.—Trees in pots, the fruit of which will now be past, may be removed to the open air, thus providing considerable space. Chrysanthemums intended for late flowering may remain outside for some time longer, some means being at hand to protect them from sudden frost. Salvias, Callas, Eupatoriums, Solanums and Bouvardias should all be cleaned and placed under protection, forwarding or retarding some portions of each as wanted for display of bloom or berry.

Kitchen Garden.

Endive, fully grown, may be lifted when dry and be planted in frames or fruit houses.

James Day.
(Gardener to Sir Malcolm M'Eacharn.)
Galloway House, Garlieston, Wigtownshire.

NEW PLANTS.

Pentstemon Myddleton Gem.—A pretty and graceful companion to those known as Newbury Gem and Southgate Gem respectively. The plant is about 2½ feet high, very floriferous, coloured a carmine rose shade externally and with pure white throat, edged with carmine at the outer edge of the tube. From Messrs Wallace and Co., Colchester. Award of merit.

Carnation O. P. Basset.—This may be best described as a counterpart of Robert Craig in form, yet neither so large nor so well coloured as that variety. It is reddish scarlet in colour and belongs to the perpetual-flowering class. From Mr. A. F. Dutton, Iver, Bucks. Award of merit.

Rose Flower of Fairfield.—A further addition to the rambler class, the flowers being coloured a reddish crimson and abundantly produced. From Messrs. Stuart Low and Co., Enfield. Award of merit.

Vitis Wilsonæ.—A very handsome and distinct new species of ornamental Vine from Western China with obovate, acutely pointed, somewhat shining leaves about midway in size between V. armata and V. flexuosa. From Messrs. James Veitch and Sons, Limited, Chelsea. Award of merit.

Dahlia Lancer.—A garden Cactus variety having medium-sized flowers of a rich and good scarlet shade. From Mr. H. Shoesmith, Woking. Award of merit.

Dahlia Goldcrest.—A very fine show or exhibition Cactus, the florets narrow and gracefully incurving, and coloured orange scarlet, with yellow base. A distinct and beautiful variety. From Messrs. Stredwick and Son, St. Leonards. Award of merit.

Dahlia Quimbo.—A shapely Cactus variety, coloured a crimson maroon shade, the narrow, well-incurving florets being faintly touched with white at the tips. From Messrs. Stredwick. Award of merit.

Dahlia Little Donald (Pompon).—A flower of model character and deep crimson colouring. From Mr. S. Mortimer, Farnham, Surrey. Award of merit.

The above-named Dahlias were adjudicated upon by a joint committee of the Royal Horticultural Society and National Dahlia Society, and, therefore, carry the award of merit of the former and the first-class certificate of the latter.

Cattleya × Basil (C. Enid × C. Mantinii).—A very handsome form with large, rosy-hued petals and sepals, the well-developed lip of amaranth and velvet being marked with golden blotches in the front.

Cattleya Mrs. Pitt var. superba (C. Harrisoniæ × C. aurea).—A sweetly scented flower of excellent texture, the sepals of a rosy magenta hue, the lip yellow, edged with rosy lilac. These came from Messrs. Charlesworth and Co., and each received an award of merit.

Cattleya × Rhoda var. conspicua (C. Iris × C. hardyana). — A very handsome and telling novelty. The sepals and petals are of a creamy tone and slightly undulated. The lip, which is coloured a rosy magenta, has golden markings in the front. From Messrs. Stuart Low and Co., Enfield. Award of merit.

Lælio-Cattleya Pizzaro Holford's variety (L. jongheana × C. aurea).—A very beautiful and handsome form, the sepals and petals spreading and of a rose magenta colour, shaded with rosy purple. The lip is of fine proportions, bold, richly coloured old gold and bronze, and shaded mahogany. The marginal lobes of the lip are heavily tasselled, or crested, and, coloured a crimson purple, render the variety one of the most fascinating and attractive we have seen. Exhibited by Lieutenant-Colonel Holford, C.V.O., C.I.E., Westonbirt, Gloucestershire (gardener, Mr. H. G. Alexander). First-class certificate.

NEW FRUITS AND VEGETABLES.

Runner Bean White Emperor.—This remarkably handsome variety of the White Dutch type of Runner Bean has pods nearly 1 foot in length, straight and fleshy withal. At the recent trial at Wisley this was proved to be the best of this section. Exhibited by Mr. E. Beckett, Elstree. Award of merit.

Strawberry Atkins's Continuity.—The fruits are of good size and of a rich scarlet colour in a variety that promises well for late autumn fruiting. From Mr. J. Atkins, Croydon Road, Beckenham. Award of merit.

Apple St. Everard.—A novelty of great merit having for its parents Cox's Orange Pippin and Margil, two of the best-flavoured Apples extant. The newcomer is typical of a moderately large Cox's, both in size and general appearance, while the fruits on reaching maturity assume that ruddy glow of crimson which ranks high from the self-advertising standpoint. It is indeed an attractive fruit, and with crisp, juicy flesh and delightful flavour promises to become one of the most popular of dessert fruits in the near future. So highly did the fruit committee regard the variety that a first-class certificate was awarded it. Exhibited by Messrs. James Veitch and Sons, Limited, Chelsea. All the foregoing were shown at a meeting of the Royal Horticultural Society on September 28 last.

ANSWERS TO CORRESPONDENTS

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Keeping bulbs (*E. M. L.*).—The bulbs would be quite useless and probably all dead at the end of the prolonged period you name, and would only be worth the experiment in the event of their being of much greater value. A far better way would be to secure the services of a gardening friend to take care of them for a year, even though you parted with some of the stock in recognition of the services rendered. Moreover, while some bulbs store fairly well, others will not endure it, and those that store at all are greatly weakened by the process.

Tulips for border (*George H. Ramsden*). A nice selection of early single Tulips for the purpose you require would be White Pottebakker (white), Mon Tresor (yellow), Dusart (rich deep crimson), Prince of Austria (orange red), Potter (rich purple) and Hector (orange red with a yellow edge). These are all soft colours and are about the same height. As an alternative to Mon Tresor, we suggest Prince de Ligny, which is a longer and more graceful flower. The above varieties flower very much at the same time, but the yellows are a little earlier than the others and Prince of Austria is just a little later. It is impossible to get equal heights and also flowers which open exactly at the same time; still, the above will all be in bloom together.

Violets in frames (*A Flower Lover*).—The best time to start is the early autumn, say, September or October, and a start may be made with (*a*) cuttings or rooted cuttings, to be wintered in cold frames for growing on for another year; or (*b*) strong flowering clumps in pots or from the open that would flower during the coming winter and spring. The latter would do quite well in a greenhouse excluding frost in severe weather, or in a frame where a slight bottom-heat existed. For the greenhouse the plants are best in pots of not less than 6 inches diameter, and with a fairly moist atmospheric condition growth and flowering would be continuous. In a frame the growth and flowering would depend greatly on the weather; and well-grown and established plants, provided the frame be placed in a warm or sheltered position, need not be planted on a bottom-heat bed, but may be placed on a firm bed of ashes with soil between the plants. Usually, however, a bed of leaves and manure is formed to provide a bottom-heat for the plants, and it not infrequently happens that a gross growth is made, and a minimum of flowers results. Firm planting is at all times essential in frame culture, and the reverse may have much to do with failure. Young, freshly rooted plants may also be planted in good ground in early April, and by keeping all runners cleared away during the season good clumps result for lifting for framing in September. Light soils may have the addition of a small quantity of clay or heavy loam, and if made quite firm should give good results. We cannot say what price you ought to pay for good soil, as this depends upon distance of cartage and other matters of which we have no knowledge. Good loamy soil may be available on the field at 5s. per load; but it may be double that amount if it has to be carted two or three or more miles. The price of plants will also depend upon their size and the varieties, whether new or old.

TREES AND SHRUBS.

Manure for Silver Firs and Cedars (*M. S. M.*).—The best thing to do with your trees is to obtain some well-rotted cow-manure and decayed leaves in equal proportions, mix them together and apply about 6 inches as a top-dressing, first removing loose material, such as old dead leaves and loose soil, which may be beneath. Keep the manure 6 inches from the trunk all round and let it extend to the outermost edges of the branches. Failing this, scatter about 10lb. of fish-manure under each tree and well water it in. You must, however, be careful to water far enough out, for the best feeding roots will be found some distance from the trunk.

Destroying old tree stumps (*W. Leicester*).—To destroy stumps of trees a large hole must be bored past the centre of the stump, or several holes in the case of a large tree. Holes 1½ inches to 2 inches in diameter are the best. These must be filled with saltpetre and a little water and corked up. Leave for three or four months; then fill the holes with paraffin and apply a light. The stumps ought then to smoulder away. Although in many cases this method proves satisfactory, it sometimes does not answer from various local causes, such as excessive moisture round about or very sappy stumps. In such cases the stumps should be grubbed up and split with blasting powder, when they may be burnt in the ordinary way.

To carpet woods with Ivy, Ferns and other undergrowth (*H. P. B.*).—You may plant your woods in the way you desire as soon as the autumn rains have well soaked the ground; everything that you wish to plant will succeed at that time. Your best way to proceed to obtain Epilobium angustifolium in quantity is to obtain roots from places where you know that it grows wild, break them up into small pieces and plant in large groups 2 inches or 3 inches deep. Seeds may also be gathered now and sown at almost any time when the ground is moist. You will doubtless obtain the plant in your neighbourhood, for it is common in most parts. If, however, you are unable to obtain it locally, try Amos Perry, Enfield, Middlesex. Common Ivy is the most suitable for undergrowth. Plants 2 feet long can be obtained at a very cheap rate from most nurserymen. Bracken is rather difficult to establish, and you will find that other common Ferns establish much quicker. Messrs. Epps and Co. of Ringwood, Hants, supply peat containing Bracken roots for planting, and they would probably be able to supply large quantities of other Ferns. You will find that Foxgloves are excellent subjects for a position such as you name. A few hundred plants could be put in, and the seeds from them would stock your woods. If you preferred to wait a year, you could sow seeds of Foxgloves next spring, which would mature for the following year. Both Vinca major and V. minor are excellent evergreen trailing plants suitable for a wood, and they have the additional advantage of producing their blue flowers freely. Messrs. Smith of Darly Dale, Derbyshire, can supply them. Solomon's Seal always looks well in a wood, while Primroses and Violets ought not to be omitted. Butcher's Broom is a good evergreen growing 1½ feet to 2 feet high, while in fairly open places you could introduce patches of the Red Campion (Lychnis diurna). Bulbs ought to be planted, and these could be put in at once. Snowdrops, Daffodils and Bluebells are all suitable; the two former can be obtained at a cheap rate from any seedsman, while a few bushels of Bluebell bulbs could probably be dug up somewhere in the neighbourhood. When you are planting, be careful to place the plants in as natural a manner as possible, making large and small, irregular-shaped groups which have no apparent dividing line between the various things, with irregular open glades carpeted with Ivy or Vinca between the taller-growing subjects.

THE GREENHOUSE.

Agapanthuses in large pots (*A. O.*).—Agapanthuses in large pots must be wintered somewhere quite safe from frost. If the vinery fulfils these conditions it will be just the place for them. Otherwise they may be kept in a cellar, shed, coach-house or similar structure, provided, as above stated, frost is excluded therefrom. During that period the roots should be kept fairly dry. The difficulty with plants wintered in structures where there is but little light is that they start into growth in the spring too soon to be turned out of doors, and it is then almost essential that they have a glass covering of some kind. If the Vines are not forced the vinery will suit them well, even if they pass the depth of winter elsewhere. The scarlet Lobelia is hardy in many localities, and should pass the winter safely with you if the crowns are protected by a few leaves or Cocoanut refuse. In cold districts, in order to ensure safety some of the crowns are potted and wintered in a frame. Hydrangea paniculata is perfectly hardy, and will pass the winter safely if the pots are plunged in the open ground. Sand or dry earth is better in which to store Dahlia tubers than sawdust, as this last is liable to generate fungus.

Treatment of mealy bug (*A. H. Rydon*).—We cannot recommend the cyanide for fumigating in a general way, and unless you have some special knowledge of it and how to use it, we advise you not to try. It is, of course, a deadly weapon in the hands of the experienced, but it may, if such a thing were possible, be even more than this in the hands of the inexperienced. You do not say what plants are affected by the bug, otherwise we might give you more definite help. You speak, too, of "brushing them off," and that this "does not get rid of them." That we quite expect. If, however, you could employ neat paraffin applied with a small paint brush, or methylated spirit applied in the same way, we think you might speedily reduce their numbers. Or if this is not practicable, try syringing with a solution of Nicoticide or XL All, using a wineglassful to a gallon of water. For these things you will find the Abol syringe quite the best thing wherewith to apply the mixture, and as it emits a very fine spray, the whole thing becomes quite economical. If we can further assist you we shall be happy to do so.

FRUIT GARDEN.

Black Hamburgh Grapes not colouring (*X. Y. Z.*).—We have found in practice that there are, generally speaking, three distinct causes of Grapes not colouring. The most common cause is, no doubt, overcropping. You will know whether this has anything to do with the cause of failure in your case. If it has, you will have to crop lighter. Another reason for the non-colouring of Grapes is that, through some cause or other, the roots of the Vine have been so weakened that they have not the power left to finish the Grapes properly. In this case the only way in which to bring back the Vine to robust health is to get at its roots and place them in new, good Vine soil, where, in the space of a very short time, they will form new roots in great abundance, with the help of which the Vine will be re-established in good health, and you will have no further trouble with the want of colour in your Grapes. We presume that you know how to go about the work of lifting and replanting the roots of Vines and also the constituents which go to make the best soil. If you do not, we shall only be too glad to help you further. Another cause of non-colouring in Grapes is the absence of potash in the soil. The best way of making this deficiency good is by top-dressing the border with the following artificial manures: 1cwt. of dissolved bones, ½cwt. of nitrate of potash and ½cwt. of sulphate of lime, mixing them well together and applying at the rate of

2lb. to the square yard at intervals of a month during the summer. By observing the proportions mentioned you can make up any quantity you may wish, whether larger or smaller than that given.

Nuts dropping before they are ripe (*F. S.*).—The bushes have been badly attacked by aphides, and the honeydew exuded by these pests has allowed one of the black fungi to grow upon the leaves; these together have so interfered with transpiration and other functions of the leaf as to make the bushes in bad health; hence, no doubt, the cause of the fall of the Nuts.

MISCELLANEOUS.

Names of plants.—*A. H.*—1, Trachelospermum jasminoides; 2, Cotoneaster frigida; 3, Ceanothus Gloire de Versailles; 4, Cosmos bipinnatus; 5, Salvia Horminum (Purple Clary); 6, Aster Novi-Belgii Janus; 7, A. multiflorus.——*N. G. Hadden.*—1, Aster Novæ-Angliæ var. pulchellus; 2, A. Novi-Belgii Robert Parker; 3, A. Novæ-Angliæ; 4, A. Novi-Belgii var. mala; 5, Polygonum affine; 6, Acæna inermis.——*Alford.*—Sambucus Ebulus (Danewort).——*A. P. Melville.*—Euphorbia amygdaloides.

Names of fruit.—*H. Perry.*—Pears: 1, Conference; 2, Souvenir du Congrès; 3, Beurré Hardy; 4, Beurré d'Amanlis; 5, Glou Morçeau; 6, Uvedale's St. Germain. ——*J. Heap.*—The Peach we believe to be Sea Eagle, but one cannot be certain without some foliage.——*J. Malcolm.*—Apple Oslin.——*J. R. F. G.*—Pear Beurré Hardy.——*E. L.*—Pear Brown Beurré.——*W. T., Norwich.*—Apple Worcester Pearmain.——*H. H., Bristol.*—The Apple is Golden Noble, and the Pear Beurré de Capiaumont.——*W. W.*—1, John Apple; 2, Cornish Gilliflower; 3, Striped Beaufin; 4 and 5, Cox's Orange Pippin; 6, Court of Wick; 7, Reinette du Canada; 8, Alfriston.——*F. A. Le.*—1, Josephine de Malines; 2, Bergamotte Esperen; 4, Beurré Goubault; 6, Marie Louise. Only four varieties sent.——*H. Dewey.*—Crab John Downie.——*J. Higgs.*—We should say this is a local variety.——*J. H. O.*—1, Ribston Pippin; 2, Claygate Pearmain; 3, 7 and 8, Irish Peach; 4, Yellow Ingestre; 5, Hall Door; 6, Dutch Mignonne.——*A. R.*—Pear Doyenné du Comice.——*F. J. Ashdown.*—Plum Belgian Purple.——*V. R. D.*—1, Washington; 2, Potts' Seedling; 3, Stirling Castle; 4, Lane's Prince Albert; 5, Court Pendu Plat; 6, Warner's King; 7, Beurré Diel; 8, Doyenné du Comice; 9, Trout Pear.——*T. E. Woodhouse.*—1, New Hawthornden; 2, Tower of Glamis; 3, Dutch Mignonne; 4, Bess Pool; 5, Annie Elizabeth; 6, Sandringham; 7, Cellini Pippin; 8, Mank's Codlin; 9, General Todleben; 10, Bergamotte Esperen; 11, Keswick Codlin Improved; 12, Flanders Pippin; 13, Swan's Egg; 14, Beurré Diel; 15, Pond's Seedling; 16, Cox's Orange Pippin; 17, Stirling Castle; 18, Peasgood's Nonsuch.——*E. Neighbour.*—1, Alfriston; 2, New Hawthornden; 3, Seaton House.——*George Rex.*—Apples: 1, Margil; 2, Reinette du Canada; 3, Old Hawthornden; 4, Stubbard; 5, Withington Fillbasket; 6, Yorkshire Beauty; 7, Emperor Alexander. Pears: 8, Beurré d'Anjou; 9, Marie Louise.——*W. J. R.*—Apples: *a*, King Edward; *b*, Doyenné de Merode; *c*, Pitmaston Duchess; *d*, Uvedale's St. Germain; *e*, not recognised; *f*, Duchesse d'Angoulême.——*T. Whitfield.*—1, Wellington; 2, Yellow Ingestre. ——*Mercury.*—4, Warner's King; 7, Wyken Pippin; 8, Lane's Prince Albert; 9 and 11, New Hawthornden; 10, Cox's Orange Pippin; 13, Lord Derby. All the other numbers were detached.——*H. Jackson.*—Pears: 1, Marie Guise; 2, Beurré Diel; 3, Williams' Bon Chrétien.—— *Purfleet.*—1, Bramley's Seedling; 2, Wellington.

SOCIETIES.

THE NATIONAL CHRYSANTHEMUM SOCIETY'S CONFERENCE.

IN place of the usual October exhibition hitherto held by the above-named society, the executive committee wisely decided to hold a conference, and this took place on Wednesday, October 6, at Essex Hall, Essex Street, Strand, W.C. The conference was divided into two sessions, afternoon and evening, and was a distinct success. In the absence of the chairman, Sir Albert Rollit, LL.D., D.C.L. (president of the society), Mr. Thomas Bevan occupied the chair. The afternoon session opened with an excellent attendance of members, Mr. C. H. Curtis dealing with the subject of "Chrysanthemums as Annuals." He explained that it had been left to him to introduce this subject, because other members who had had considerable practical experience had declined to deal with the subject on this occasion. The usual cultural details he had decided to omit. He said it was a most interesting subject, as it took only some eight to nine months to bring the flowers to perfection. A wonderful display made at the Reading show two years ago was mentioned, in which groups of highly decorative, freely flowered plants were exhibited, all raised from plants raised from seeds sown in the spring of that year. A visit to Messrs. Sutton and Sons' Nursery, Reading, was described, where a large house was filled with single Chrysanthemums raised in this way. Mr. Curtis said there was a great future for Chrysanthemums when treated as annuals. This method of culture was cheap, as a packet of seed could be purchased for a less sum than the price of a young plant of a named variety. A packet of seed would provide sufficient plants to fill a fair-sized conservatory. Chrysanthemums treated as annuals did away with the edious process of propagation by cuttings; there was also a considerable saving in time and space by raising the plants as annuals as compared with propagation by cuttings. When the seeds were sown in January or early February in a temperature of about 60°, and the resulting plants were gradually hardened off and grown on freely and carefully, subsequently the plants should provide a first-rate display from the end of October onwards. The average height of the plants was given as about 3 feet. He recommended very little, if any, disbudding.

Mr. Curtis concluded his paper by stating that this new phase of culture offered great possibilities in the extension of Chrysanthemum culture among amateurs, and especially to those who find it difficult to keep a large number of stock plants for providing cuttings during the winter. He also suggested that Chrysanthemum societies should encourage the cultivation of Chrysanthemums as annuals by arranging competitions at their November shows. The discussion was opened by Mr. D. B. Crane, who mentioned that he had raised Chrysanthemums this year by sowing seeds on a hot-bed in April, subsequently planting the seedlings in a cold frame and placing the established plants in their flowering quarters in June. At the present time a large proportion of the plants were in flower, and others were likely to continue the display for some time. The first plant to come into flower began its display as early as mid-August. He also suggested that societies would do well to encourage the cultivation of Chrysanthemums as annuals. Mr. P. A. Cragg asked whether it would be possible to raise seedlings of fairly even height for bedding. Mr. E. F. Hawes supported the previous speakers, pointing out that seeds of dwarf-flowering kinds produced, as a rule, fairly dwarf plants.

Mr. Norman Davis said that fully twenty years ago he raised Chrysanthemums as annuals, and at one time he had quite 5,000 seedling plants. He advised the growing of seedling Chrysanthemums as bedding plants, and advocated pinching the tall plants to get the collection of uniform height, which he said was desirable. He agreed with Mr. Crane that raising seedlings was most fascinating. He said Mr. Wells deserved congratulation for reintroducing the culture of seedlings.

Mr. W. J. Godfrey was strongly averse to the idea. He considered the raising of Chrysanthemums as annuals a retrograde movement and a step downhill. He said most of the seedlings were weedy. Mr. Oliver mentioned his experience in raising seedlings, and said a cross between Carrie Luxford and another variety produced seedlings that varied considerably in their height and also in their period of flowering. Mr. J. H. Witty and others also spoke.

The second paper in the afternoon session was given by Mr. W. Wells, and was the development of the early-flowering single Chrysanthemum in a nutshell, so to speak. He said that in the spring of 1902 he commenced to make crosses with a single variety named Mabel Goacher, which was raised by Mr. Goacher. From this variety and one or two others he succeeded in raising a number of seedlings which were the forerunners of the race of plants that are now so popular to-day. The varieties which are so well known to growers to-day were each mentioned in turn, showing how the development proceeded. Selections in which the different colours were represented were given in detail, and these were followed with considerable interest.

In the course of the discussion which ensued it was stated that the single-flowered kinds with a single row of florets will not stand the weather so well, and it was also mentioned that they like cooler better than the warmer weather, and that when the temperature reached 70° the flowers will burn and spoil. Mr. Crane asked Mr. Wells whether he had not used other varieties than those he had mentioned when making his earlier crosses, as he himself had shown bunches of single-flowered Chrysanthemum Mrs. C. H. Curtis in his winning collection in the leading class at the Crystal Palace in 1903. Mr. J. H. Dick asked how many degrees of frost the single-flowered kinds would stand.

In reply to the various questions put to Mr. Wells, he said that he regarded Mrs. C. H. Curtis (the single variety) as an October, and not a true early-flowering, single Chrysanthemum. He also said the single kinds will stand more frost than the doubles. Singles did not always show their true character the first year, though, as a rule, they did show their general character.

A vote of thanks to Mr. Curtis and Mr. Wells concluded the business of the afternoon session.

EVENING SESSION.

The attendance at the evening session was in no way diminished; as a matter of fact, there were more persons present. The proceedings commenced at six o'clock, Mr. Thomas Bevan again occupying the chair.

Mr. J. B. Riding read a paper on "Late Chrysanthemums for Market"; this was followed most attentively by the audience, which included a good sprinkling of market growers. As a winter-flowering plant the Chrysanthemum had increased in popularity during the past ten years, which was attributed to the fact that these flowers last for a long period when cut. An ideal market variety should produce flowers of a decided colour, and should have good stiff, erect stems, also carry its foliage well, must not fade quickly, and of necessity must have a good constitution. Late varieties should produce flowers from their terminal buds by the middle of December. A long season of growth is undoubtedly essential; therefore cuttings should be rooted early in the season. If the plants are pinched when about 6 inches high or even less, this will lay the foundation of a plant large enough for all purposes; but the pinching should be done while the plant is quite soft, as it will then break freely. He recommended placing three plants in sixteens (9-inch pots). Allow ample room during the summer so that light and air can be secured, as these are essential factors in successful culture. Well-ripened wood should be the object of the cultivator, and every means used to that end. A selection was then given: White, Cannell's Late Prolific, Mrs. Thompson, Queen of the Exe, Princess Victoria, Heston White, Mme. R. Oberthur, Snowdrift and Mlle. Theresa Panckoucke; yellow, Golden Mrs. Thompson, Market Gold, Allman's Yellow, Mrs. G. Beech, True Gold and Nagoya; crimson, Violet, Lady Beaumont, W. A. Crossley and Matthew Hodgson; bronze, Tuxedo and Lord Brooke; pink, A. J. Balfour, Mlle. L. Charvet, Winter Cheer and Framfield Pink.

Mr. Norman Davies opened the discussion by saying that before the National Chrysanthemum Society or similar societies expressed an opinion as to the real worth of a new variety it should be relegated to the society's committee, who should select and recommend really late ones as the result of their combined wisdom. Mr. F. Ladds said he did not trouble whether they were late or not; he tried to grow them late. He preferred a 8½-inch pot to a 9½-inch pot for late varieties, also to grow four plants in a pot and secure three good blooms on each plant.

Mr. Prickett said, "My experience is we want a plant to begin with with a dozen to fourteen good breaks. It is the way they are grown; when starved they flower early." Mr. J. Tulley said he grew his plants in 8½-inch pots. The variety Mlle. T. Panckoucke, he said, needed carefulness in watering. He watered others twice to this variety once. He supported the suggestion of Mr. Davis as regards the combined opinion of the committee for an authoritative list of late varieties. Mr. Wells said he fully endorsed what many of the speakers had said. "No one knows what a Chrysanthemum is going to be until it has been grown a year or two." He recommended a trial in a market-grower's establishment for the purpose of proving the sorts. Mr. Davis also remarked that certificates for decorative and market varieties should only be granted after growing plants had been submitted to the floral committee. This grower also explained the origin of Framfield Pink, about which there has been considerable misunderstanding for years. He considered Roi des Blancs the best white for market for early, midseason, or late work. Mr. Riding replied to the different questions that were raised, and concluded by saying that, on the test of Covent Garden Market, his list of varieties would prove a really good one.

Mr. P. A. Cragg immediately followed with his paper on "The Best Chrysanthemums for Cut Flowers from a Commercial point of view." He regarded Roi des Blancs as the best of the whites for decorations. Such sorts as Goacher's Crimson and Horace Martin are good if cut back the last week in July. October-flowering Chrysanthemums should be propagated at the end of March or beginning of April and the plants should not be stopped at all. The Pompons and single-flowered kinds were especially referred to, but care was taken to make a wise selection of the two types. Of the last-mentioned, Mr. Cragg said, "They do not suit everybody." In concluding, an interesting statement was made by this grower to the effect that at his establishment they were using the "fire pots," as used in American orchards for the purpose of combating frost among Chrysanthemums growing outdoors. At present they could not speak with any authority, as the matter was still in the experimental stage; he believed it would prove successful.

Mr. D. B. Crane then proceeded to read his paper on the "Best Chrysanthemums for Cut Flowers from an Æsthetic Point of View." This well-known authority called attention to the undue preference given to the Japanese type of the flower, by which means many of the most beautiful types of the Chrysanthemum were omitted from our English gardens. He called attention to the claims of the quaint and curious Anemone-flowered Chrysanthemums, which included large Anemones, Japanese Anemones and Pompon Anemones, each very beautiful and capable of adding so much to the charms of these autumn-flowering plants. The Pompons were also given notoriety, and special allusion was made to the real beauty of the miniature-flowered Pompons, of which Snowdrop and Primrose League were beautiful examples. Reference to the advance in the single-flowered sections was made and their value for home decoration emphasised. The spidery Chrysanthemums, of which so little is known by the majority of present-day horticulturists, were given a meed of praise. The usefulness of these dainty little flowers in December decorations was specially mentioned. Private growers should benefit by the lists that were given in considerable detail, as these should enable them to prepare a collection of Chrysanthemums that will flower from late August until the close of the year, and even later. Mr. Crane said a decorative Chrysanthemum should be a plant with a good bushy habit, and should possess a sound constitution. The plant should be free-flowering and develop its blossoms on a good length of footstalk without disbudding. The colours of the flowers need not be self-coloured. Self-coloured flowers were necessary, but those having intermediate and varied tones of colour should have a place in all collections. There were many uses to which they could be put. The neatly formed flowers of the old and once-popular incurved varieties, as represented by Mrs. Geo. Rundle, Mr. Geo. Glenny and Mrs. Dixon, were praised for their decorative value.

Considerable discussion followed these two papers, Mr. J. Williams of Ealing supporting them in no unmeasured terms. He complained that the florists did not push the singles and Pompons that both Mr. Crane and Mr. Cragg had justly praised.

The conference closed at about 8.30 p.m. with votes of thanks to the readers of the papers and to Messrs. Crane, Curtis and Payne, the sub-committee who organised the conference, and to the chairman for presiding.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

RESTORING VINES TO HEALTH.

BEFORE deciding on the course to take with the object of restoring sickly Vines to good health, it is well, first, to find out, if possible, what has been the cause of failure, because if it is the result, say, of an attack of red spider, thrip, mealy bug or any other pest injurious to the Vine, it is obviously useless to incur the expense and labour of replanting in new soil before these pests are destroyed. It may be that none of the above causes has operated to bring about the ill-health of the Vines, but rather that it has been caused by the exhausted condition of the soil, defective drainage, or that the main roots are deeply embedded in uncongenial subsoil. This can only be ascertained by examining the roots and the condition of the border, which we will now proceed to do, say, at the end of October or at any time during the winter, but the earlier the better after the time mentioned. Many Vines are planted in borders which are partly outside and partly inside, others in outdoor borders only, and others, again, in inside borders only. The work of renewing the borders is much the same in each case. Taking the double border as an example and treating the inside of it first, the first thing to do is to clear the vinery of all plants or any other portable article likely to impede the progress of the work, and then cut a trench 18 inches wide the whole length of the border and as deep as the bottom of the border, say, 2½ feet. The side of the trench next to the Vines must be at least 8 feet distant from them. The whole of the soil in the trench should be wheeled away down to the drainage at the bottom. All roots that are come in contact with in forming this trench should be cut through with a knife. Having cleared the trench of all the soil, the next thing to do is to purchase a well-made five-tined fork, and gradually and carefully to work away the soil from the border into the trench until we reach within 2½ feet or 3 feet of the stems of the Vines. If it is found—as it often is—that the soil thrown back from the border into the trench more than fills it, and that it hampers the workman at his work, have it wheeled away, as ultimately all this shifted soil will have to be cleared away. This forking out of the soil from among the roots of the Vine is a work needing all possible care, as if the roots are lacerated or injured in any way by the fork, their future recovery and usefulness are greatly marred. The utmost care must be taken of every healthy root that is come in contact with for replanting again in the new soil. Assuming now that the whole of the soil has been cleared away from the roots of the Vines to within 3 feet of their stems, the next thing to do is to collect the liberated roots carefully together and turn back on to the top of the border at the base of the Vines, placing a wet mat over them and a fairly heavy board on the top of that to keep them in position until wanted for replanting.

The Bottom of the Border.—Having cleared the whole of the soil away from the part excavated, an opportunity will be given to examine the drainage. If the border is found to rest on a subsoil of gravel or any other material sufficiently porous to admit of the free passage of water, no better bottom is needed; but should it be resting on clay or some other substance equally impervious to the passage of water, the bottom must be concreted and drainage secured by the insertion of rows of 3-inch drain-pipes at distances apart of 4 feet, having sufficient fall and an effective outlet, filling in between the pipes (and deep enough to cover them) with broken bricks, stones and potsherds. Should it be found in clearing away the soil from the border that some of the Vine roots have penetrated into the subsoil, rather than try to trace them to their source and lift them for replanting it will be better to cut them off, as such roots are of practically no value to the Vine. We have now finished what may be termed the pulling down or destructive part of the work of renovating old Vines, and will now proceed to the more congenial part of building up new material which is to give new life and greater fertility to the Vines. In considering the work of replanting, the nature of the soil and its preparation must have precedence over all other work. In the first place, it is absolutely necessary that the soil be prepared beforehand and ready to be placed in the border as soon as it is ready to receive it, so that not a moment's delay takes place before the Vines are replanted.

The Soil.—It is considered to be an advantage by some gardeners to cut and stack the turf before it is wanted for use. My experience of making Vine borders goes to show that there is no advantage attending this practice. The first thing to do before preparing the new soil is to find out about how much will be required to fill up the new border. The planter must bear in mind that little more than half the space of the border which has been cleared of soil will be available for filling up for the present replanting of the Vines, the other portion being reserved for another addition of fresh soil to the roots in two years' time. As the success of the Vines for so many years will depend on the quality of the soil in which their roots are

planted, no expense or trouble should be spared in obtaining the right sort. The best is that obtained from an old meadow pasture, of heavy rather than a light texture, with a fair depth of loam underneath, and resting on sandstone, limestone, or even gravel. The grass must first be cut off as close as possible, and the turf may be cut into any lengths and widths desirable, but they must not be cut of greater depth than 5 inches. It is only at this depth that masses of grass roots, or fibres, are found in the turves, and which add so much value to Vine soil. The turf should be chopped up with a sharp spade into pieces the size of the fourth of a brick. To each cartload of such turf add two barrow-loads of old broken bricks, reducing them to the size of a hen's egg, and adding the small stuff and the dust which comes from them (the function of this material is to keep the border sweet, porous and well aërated), one barrow-load of old mortar or plaster rubble, a small barrow-load of quicklime, 20lb. of half-inch bones and the same of bone-dust, and half a bushel of soot or of wood-ashes. Mix the whole well together by turning over several times, when it will be ready to plant the Vine roots in.

The first thing to do in starting on the new border is to build a wall of turf about a foot wide and as high as the surface of the old border, and at a distance from the stems of 6 feet (it will, of course, run the whole length of the border). This will give a space of close on 3 feet to be filled with new soil for the Vine roots to root into, and still leave some space behind the turf wall to be filled up with new soil for the further encouragement of the Vine's growth in two years' time. In commencing to fill the space between the turf wall and the roots of the Vines with the new soil, the largest and coarsest of the lumps of turves should be selected and placed at the bottom on the drainage to the depth of 5 inches, ramming them down firmly. Before proceeding to add any more soil to the new border, we must now examine the roots placed under the mat as directed. All it will be found necessary to do will be to cut back the jagged ends of the shortened roots with a sharp knife, taking care that the cut is a slanting one and the surface of the cut facing upwards. From this cut, facing upwards, roots will be formed with a tendency to grow upwards, forming valuable surface roots; on the other hand, if the end of the root is cut with the face of the cut part facing downwards, the new roots formed would have a decided tendency to strike down to the bottom of the border, and probably to the subsoil.

Planting.—In the first place, put a layer of the new soil 4 inches deep over the rough, turfy soil already at the bottom of the border, pressing it down firmly. On this place the bottom layer of roots, packing the soil over and round them firmly with the hands. Add another layer of soil of the same depth and a layer of roots as before. The last layer of roots should be 6 inches below the surface of the border when it is finished. It will be observed that the soil placed over each layer of roots should be firmly pressed down, as Vines succeed so much better in firm soil than in that which is loose and light. The soil at planting-time should be on the dry side rather than the wet.

We have now finished replanting the roots of the Vines. It only remains for the space of the old border left vacant behind the wall of turf to be filled with fresh leaves and trodden down hard, Beech or Oak leaves for preference. New summer roots will find their way into the leaves, with the result that considerable added strength will be given to the restoration of the Vines. These leaves should be taken out the following winter, cutting away any roots there may be back to the face of the wall of turf, and filling again with leaves as before. The second winter the leaves must be taken away and the roots treated as before, the space filled this time with soil and made to form part of the new permanent border. I have been presuming that the Vines under treatment are growing in a double border (inside and out) and that the inside only has been treated. The outside part will have to be served in the same way as the inner one, and in the case of single borders, either inside or outside, the treatment will have to be the same.

The border should receive a good soaking of clear water to settle the soil about the roots as soon as the planting is finished, afterwards covering the border over to the depth of 7 inches with leaves to keep it fairly dry and safe from the effect of severe frosts. The leaves should be removed the first week in May, and the border left exposed for a fortnight to dry and sweeten its surface, when it may receive a good soaking of weak manure-water, afterwards adding a mulching of fresh horse-manure and loam in equal quantities, with a light sprinkling of bone-dust. This mulching should be 3 inches deep and pressed firmly to the border, covering it over to the same depth with half-decayed litter to prevent too rapid evaporation. As a result of this treatment it will be found that by midsummer, or soon after, the new soil and mulch will be densely permeated with new feeding roots, and the Vines correspondingly strengthened.

My remarks so far have applied to root culture alone, which, after all, is the mainspring to all good culture, as, unless a plant or a tree possesses abundance of healthy strong roots, successful results are impossible. I will only say this much in reference to the culture of the Vine itself under glass—that the cultivator must bear in mind the rough ordeal the roots of the Vines have gone through. They must not be forced prematurely into growth, but allowed to break naturally through sun-heat in spring, the object being to secure as strong a break of shoots as possible. The Vines should only be allowed to carry a very light crop the first year after lifting; afterwards they may carry full crops. X. Y. Z.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

*** *The dates given below are those supplied by the respective Secretaries.*

October 25.—National Chrysanthemum Society's Floral Committee Meeting at Essex Hall, Strand, London, W.C.

October 26.—Royal Horticultural Society's Exhibition of Flowers, Fruits and Vegetables, Vincent Square, Westminster. Lecture at 3 p.m., by Professor G. Henslow, on "Remarkable Instances of Plant Dispersion."

United Horticultural Benefit and Provident Society.—The quarterly meeting of this society was held at the Horticultural Hall, Vincent Square, Westminster, S.W., on Monday evening, October 11, Mr. C. H. Curtis in the chair. The death certificate of Mr. James Swingler was produced, and the amount standing to his credit, viz., £30 4s. 1d., was granted to his widow. The deceased was a lapsed member since 1892. The sick pay for the month was £34 10s. The usual quarterly grants from the Benevolent Fund were passed for payment. The annual dinner will be held at the Waldorf Hotel on the 28th inst., at 6.30 p.m., when it is hoped that as many members and friends as possible will attend. J. B. Slade, Esq. (of Messrs. Protheroe and Morris), will preside.

The Hampton Court Grapes.—No one who saw the recent exhibit of Grapes from the old Black Hamburgh Vine at Hampton Court could but be impressed with the results of Mr. McKellar's labours in rejuvenating this old Vine, and also in being more and more convinced that Black Hamburgh is still the most popular Grape we have. Nowhere this year have more typical examples of this Grape been seen than those alluded to. No doubt heavier bunches with larger berries have been presented at some few shows, but not so conspicuous for symmetry, correctness of shape, evenness in berry, and, above all, that rich bloom which, when present, goes to make Black Hamburgh the most attractive of all Grapes. All these qualities have well repaid Mr. McKellar any extra trouble he has spent in imparting a new lease of vigour to the old Vine. Much more might be done in the same direction to Vines less than fifty years old which are not in a satisfactory condition, instead of rooting them out and replanting new canes. The present-day craze for large bunches of Grapes, among other things, has much to do with the objection to re-invigorating old Vines, whereas timely attention to the encouragement of new fibrous roots will do much in improving the growth first of the leaves and wood, which in turn produce better bunches.

Rose fence at Aldenham.—To part one portion of the grounds from another a winding iron fence 400 yards long and 4 feet high was put up a few years ago; to hide the fence and make it generally interesting climbing Roses were planted about 10 feet apart and, in the stiff, well-prepared soil, grew amazingly. As might be expected under such favourable conditions, a wealth of flower is annually obtained, rendering this part of the garden a distinct feature. The necessity of depressing the sucker-like growths on such a low fence is, no doubt, all in favour of a heavier flower display, thus checking exuberant growth and rendering such shoots more fertile. The varieties used are, as might be expected, of the best, including a free admixture of wichuraiana varieties, as they, being practically evergreen and of a semi-weeping character, are exactly suited for such a purpose: Lady Gay, Dorothy Perkins, Alberic Barbier, Jersey Beauty, René André, Gardenia and Evergreen Gem; Aimée Vibert is distinctly a useful variety for such a purpose, flowering well into the autumn; Claire Jacquier, Leuchtstern, Longworth Rambler, Reine Marie Henriette, The Wallflower and William Allen Richardson.—E. M.

Rose Climbing Lady Ashtown.—On page 490, in the list of "British-raised Roses," Climbing Lady Ashtown was mentioned as being raised by Bentley, whereas it should, of course, have been Bradley. The raiser is one of our best-known rosarians, and his nurseries at Fengate, Peterborough, are always a pleasure to visit in the flowering time of the Rose and other hardy flowers.

Leeds Paxton Society.—The growers of Sweet Peas in various parts who so kindly helped the committee of this society with contributions of flowers on the occasion of their first show, held at Headingley, Leeds, on August 7, will be pleased to learn that the exhibition resulted in a net profit of £7 in aid of the Royal Gardeners' Orphan Fund.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Spraying fruit trees.—Now that the time for winter spraying of fruit trees is drawing upon us again, may I call the attention of fruit-growers and amateurs to the Report of the Conference on the Spraying of Fruit Trees, held in the Hall of this society on October 16th, 1908, and which may now be obtained in book form. The work deals with the methods of spraying for both entomological and fungoid pests, and gives information respecting washes, spraying machinery, &c. It forms the latest collated information on the subject, and may be had at the offices of the Royal Horticultural Society, Vincent Square, Westminster, price 1s.—W. Wilks, *Secretary.*

The newer Roses: Letters from all parts of the world.—The kind expressions of approval that have reached me through your columns and the post of my "Notes on the Newer Roses" are pleasant reading, and I beg to thank the senders of them very heartily. They are not confined by any means to the British Isles; in fact, I have received letters of thanks from Australia, New Zealand and Trinidad, so that your journal must boast a world-wide circulation. They will serve as an incentive to write only what one "knows" as distinguished from what one "hears." I will deal, with your permission, with those writing recently in your columns; the others I have communicated with direct. A "Leicester Reader" desires me to compa_ the substance of a new Rose and the number of its petals with a similar older Rose rather than use such an expression as "rather thin," and where I can fairly do so I will; but petals in the individual flower vary enormously. Let your correspondent pull some to pieces and count the separate petals; he will be surprised at the various results; but I know what he means and will oblige him as far as possible. "B. W. Price" thinks my description of the growth of Château de Clos Vougeot as "not too good a grower" hardly correct. I am very glad to hear that with him the growth of this beautiful Rose is "rampant"; but that statement is rather severely qualified by another giving the length of the average growth as 18 inches—hardly rampant! Mr. Price. I expressly stated, too, that my plants of it were grafted, and meant to imply, if I did not say so in as many words, that I did not consider it had had a fair trial under the circumstances. While referring to your Rose Number I might point out a slight error. In describing Warrior, the front-page illustration, it was stated this Rose won the silver medal for the best Hybrid Tea in the trade and amateur sections at the autumn show of the National Rose Society, recently held in the Royal Horticultural Society's Hall at Vincent Square. This is an error, as the silver medal in each section was won by Earl of Warwick. Both Roses were raised by William Paul and Son, and, doubtless, this accounts for the error. I need hardly say that I hope any reader whose experience with any particular Rose differs from mine will put his on record; it is only by so doing that possible errors can be rectified.—H. E. MOLYNEUX. [We have corrected the mistake about the Rose Earl of Warwick. It was not the fault of our correspondent.—ED.]

Rose W. C. Egan in America.—Illustrations in THE GARDEN from this side of the Pond are not often seen, so with pleasure I send you this one, hoping it will arrive safely. It is of a William C. Egan Rose, and is growing in the gardens of F. S. Moseley, Newburyport, Mass., U.S.A. It was raised by Jackson Dawson of Boston in 1900 by crossing General Jacqueminot with Rosa wichuraiana. The flower is large, very double and of a beautiful flesh colour. It blooms in early summer and remains in beauty for several weeks. It is a strong grower, having clean, bright foliage, which makes it popular after flowering. In this part of Massachusetts it is necessary to cover all the hardy Roses, both Ramblers and Hybrid Perpetuals, with Pine boughs or straw, in order to get them to live through the winter, as in some winters the thermometer goes down 20° below zero; but it can be seen by this illustration that the cold weather does not injure to any extent this Rose. — A NEWBURYPORT READER OF "THE GARDEN."

A use for green Tomatoes.—In consequence of the cold, wet summer we have experienced this year, a great number of the people who read your valuable paper must have, like myself, a large quantity of Tomatoes out of doors which stand no chance of ripening. A most excellent pickle for winter use can be made from the following recipe, which I believe will not be found in any cookery book. Green Tomato pickle: 4lb. Tomatoes, 1½lb. Apples, 1½lb. Onions, 3¼lb. brown sugar, ¼lb. Sultanas, 3oz. ground Mustard, 1oz. salt, ¼oz. ground Ginger, one quart brown vinegar, and ¼oz. each whole Allspice, whole Pepper and Cloves, and one dozen red Peppers tied in a piece of muslin and removed after cooking. Cut up the fruit and Onions and boil with the other ingredients till tender, stirring all the time; put into pots, and when cold tie down with parchment paper covers.—VIOLET JEFFERY.

Large plants of Heliotrope President Garfield.—I should be much obliged to anyone who can tell me where I can obtain plants of Heliotrope President Garfield. It has been largely used this summer in the London and Liverpool parks.—M. H. SCOTT-NICHOLSON.

ROSE W. C EGAN IN AN AMERICAN GARDEN

THE ROSE GARDEN.

BRITISH-RAISED ROSES.

(Continued from page 502.)

BELOW we give a continuation of the list of British-raised Roses, which was commenced in our Rose Number, published on the 9th inst.:

Hon. Ina Bingham, H.T., A. Dickson and Sons.
Hugh Dickson, H.P., H. Dickson.
Hugh Watson, H.P., A. Dickson and Sons.
Hugo Roller, T., W. Paul and Son.
Hugonis, species, J. Veitch and Sons.
Iceberg, Wich. T., Paul and Son.
Irene, H.T., W. Paul and Son.
Irish Beauty, H.T., A. Dickson and Sons.
Irish Brightness, H.T., A. Dickson and Sons.
Irish Elegance, H.T., A. Dickson and Sons.
Irish Glory, H.T., A. Dickson and Sons.
Irish Harmony, H.T., A. Dickson and Sons.
Irish Modesty, H.T., A. Dickson and Sons.
Irish Pride, H.T., A. Dickson and Sons.
Irish Star, H.T., A. Dickson and Sons.
J. B. Clark, H.T., H. Dickson.
J. B. M. Camm, Bourb., Paul and Son.
Jas. Coey, H.T., A. Dickson and Sons.
Jeanie Deans, Briar, Lord Penzance.
Jeannie Dickson, H.P., A. Dickson and Sons.
Jessie, Poly., Merryweather.
John Bright, H.P., Paul and Son.
John Cuff, H.T., A. Dickson and Sons.
John Hopper, H.P., Ward.
John Ruskin, H.T., A. Dickson and Sons.
John Stuart Mill, H.P., Turner.
Joseph Lowe, H.T., Lowe and Shawyer.
Julia Mannering, Briar, Lord Penzance.
Juliet, Hybrid, W. Paul and Son.
Kathleen, H.T., A. Dickson and Sons.
Kathleen, Mult., W. Paul and Son.
Killarney, H.T., A. Dickson and Sons.
Lady Arthur Hill, H.P., A. Dickson and Sons.
Lady Ashtown, H.T., A. Dickson and Sons.
Lady A. Stanley, H.T., McGredy.
Lady Battersea, H.T., Paul and Son.
Lady Clanmorris, H.T., A. Dickson and Sons.
Lady Curzon, Single, Turner.
Lady Faire, H.T., Bentley.
Lady Godiva, Wich., Paul and Son.
Lady Helen Stewart, H.P., A. Dickson and Sons.
Lady Helen Vincent, H.T., A. Dickson and Sons.
Lady Henry Grosvenor, H.T., Bennett.
Lady Mary Corry, Tea, A. Dickson and Sons.
Lady Mary Fitzwilliam, H.T., Bennett.
Lady Meriel Bathurst, Tea, Jefferies.
Lady Moyra Beauclerc, H.T., A. Dickson and Sons.
Lady Overtoun, H.P., H. Dickson.
Lady Penzance, Briar, Lord Penzance.
Lady Pirrie, H.T., H. Dickson.
Lady Quartus Ewart, H.T., H. Dickson.
Lady Roberts, Tea, F. Cant.

Lady Rossmore, H.T., Hall.
Lady Sarah Wilson, Semi-double, Turner.
Lady Sheffield, H.P., Postans.
Lady Ursula, H.T., A. Dickson and Sons.
Lady White, Single, Turner.
Lawrence Allen, H.P., Cooling.
Lena, Tea, A. Dickson and Sons.
Leslie Holland, H.T., H. Dickson.
Liberty, H.T., A. Dickson and Sons.
Little Dot, Poly., Bennett.
Little Gem, Moss, W. Paul and Son.
Longworth Beauty, Tea, Prince.
Lord Bacon, H.P., W. Paul and Son.
Lord Macaulay, H.P., W. Paul and Son.
Lord Penzance, Briar, Lord Penzance.
Lorna Doone, Bourb., W. Paul and Son.
Lucida plena, Lucida, J. Veitch and Sons.
Lucy Ashton, Briar, Lord Penzance.
Lucy Bertram, Briar, Lord Penzance.
Mabel Morrison, H.P., Bennett.
M. Ada Carmody, Tea, W. Paul and Son.
M. H. Walsh, H.P., A. Dickson and Sons.
Magna Charta, H.P., W. Paul and Son.
Maharajah, H.P., B. R. Cant and Sons.
Mamie, H.T., A. Dickson and Sons.
Marchioness of Downshire, H.P., A. Dickson and Sons.
Marchioness of Dufferin, H.P., A. Dickson and Sons.
Marchioness of Exeter, H.P., Laxton.
Marchioness of Londonderry, H.P., A. Dickson and Sons.
Marchioness of Lorne, H.P., W. Paul and Son.
Margaret, H.T., W. Paul and Son.
Margaret Dickson, H.P., A. Dickson and Sons.
Margaret Molyneux, H.T., A. Dickson and Sons.
Marjorie, H.T., A. Dickson and Sons.
Mary Countess of Ilchester, H.T., A. Dickson and Sons.
Mavourneen, H.P., A. Dickson and Sons.
Medea, T., W. Paul and Son.
Meg Merrilies, Briar, Lord Penzance.
Merrie England, H.P., Harkness.
Meta, T., A. Dickson and Sons.
Mildred Grant, H.T., A. Dickson and Sons.
Milton, H.P., W. Paul and Son.
Minna, Briar, Lord Penzance.
Miss Cynthia Forde, H.T., H. Dickson.
Miss Ethel Brownlow, T., A. Dickson and Sons.
Molly Sharman Crawford, H.T., A. Dickson and Sons.
Morning Glow, T., W. Paul and Son.
Mrs. A. Byass, T., W. Paul and Son.
Mrs. A. Chandler, Bourb., Chandler.
Mrs. A. M. Kirker, H.P., H. Dickson.
Mrs. A. Tate, H.T., McGredy.
Mrs. Anthony Waterer, Rug., Waterer.
Mrs. Arthur Munt, H.T., A. Dickson and Sons.
Mrs. B. R. Cant, T., B. R. Cant and Sons.
Mrs. Campbell Hall, T., Hall.
Mrs. Cocker, H.P., Cocker.
Mrs. Conway Jones, H.T., A. Dickson and Sons.
Mrs. David Jardine, H.T., A. Dickson and Sons.
Mrs. David M'Kee, H.T., A. Dickson and Sons.
Mrs. Dudley Cross, T., W. Paul and Son.
Mrs. E. J. Holland, H.T., McGredy.
Mrs. Edward Mawley, T., A. Dickson and Sons.
Mrs. F. W. Flight, Mult., Cutbush.
Mrs. F. W. Sandford, H.P., Curtis.
Mrs. Frank Cant, H.P., F. Cant.
Mrs. G. W. Kershaw, H.T., A. Dickson and Sons.
Mrs. George Dickson, H.P., Bennett.
Mrs. Harold Brocklebank, H.T., A. Dickson and Sons.
Mrs. Harry Turner, H.P., Laxton.
Mrs. Hubert Taylor, T., A. Dickson and Sons.
Mrs. Isabelle Milner, H.T., W. Paul and Son.
Mrs. James Wilson, T., A. Dickson and Sons.
Mrs. Jas. Craig, H.T., H. Dickson.
Mrs. John Bateman, H.T., A. Dickson and Sons.
Mrs. John Laing, H.P., Bennett.

(To be continued.)

POTATOES AFFECTED BY THE BLACK SCAB OR WARTY DISEASE.

THE KITCHEN GARDEN.

BLACK SCAB OF POTATOES.

POTATO black scab, or warty disease of Potato, as it had better be called, is a disease of quite recent introduction. At this season of the year, when the tubers are being dug, some may be found having warty excrescences upon them, looking somewhat like a dark-coloured Cauliflower. When the attack is very bad, the whole tuber may be covered with this growth and exhibit the appearance so well depicted on the right of the illustration; but if the attack has not proceeded so far, smaller warts, perhaps easily detachable from the tubers, will be found. Occasionally similar growths are found on the lower parts of the stem as well as on the tubers. Microscopic examination of the tissues of the warts reveals the presence of round, brown spores, usually one in each of the cells, but sometimes two. The fungus, of which these spores are the resting bodies, has been called Chrysophlyctis endobiotica. In the spring the spore germinates and gives rise to large numbers of cells capable of motion, and if Potatoes are near, the tender tissues of the eyes will fall an easy prey to them. After one of these motile cells enters a cell of the Potato it rapidly enlarges at the expense of the protoplasm and soon produces many more of the motile cells, each capable of infecting fresh cells of the host. At the same time the Potato cells are greatly stimulated and multiply very rapidly, so that in a short time the warty, Cauliflower-like growth is produced. In the autumn the resting spores are again produced.

If pieces of these diseased Potatoes are left in the soil, the spores will remain and prove a source of infection in the next spring, and there is evidence to show that they will remain capable of infecting Potatoes for five years.

The disease is spreading steadily over the country, as diseased seed is distributed, and no efforts should be spared to check its spread, as it is likely to cause very serious loss in the most important cottage garden crop of this country. The Board of Agriculture has scheduled the disease, and anyone finding it among his Potatoes is required, under a penalty, to notify the fact to the Board, and it is to be hoped that everyone will co-operate with the Board in its efforts to stamp out the disease.

It would be foolish, of course, to plant diseased tubers, or to plant tubers in ground where they have been previously affected. It would be unwise to plant tubers, however healthy they may appear, from a garden where the disease has occurred. SCIENTIST.

PLANTING SPRING CABBAGES IN AUTUMN.

THE amateur frequently has what one may term bad luck with the autumn plants, and at times various reasons are given for the scarcity which follows in the spring. I am aware it is not a pleasant matter to write on failures, but if by so doing they can be avoided I shall feel justified. I have heard the seed blamed, but in these days those who know would smile at such an assertion. I feel sure, after a long experience, that ninety-nine out of every hundred seeds germinate if obtained from a good house. Another point is variety, but in these days there are no difficulties in this respect; there are some splendid early forms to select from. Some forty years ago the old Nonpareil type was everyone's Cabbage, though by no means reliable. I have seen 75 per cent. go to seed. This is a thing of the past, as we have some splendid stocks now—early, small and just the size for a private garden.

Many growers, especially amateurs, plant seedling Cabbages in land recently dug and heavily manured. I am averse to this mode of culture. For many years it was my aim to get the spring Cabbages as early as possible, not in dozens, but by the thousand, and to be on the right side I adopted quite the reverse mode of culture, as I found out there were severe losses by planting in land newly dug and in a soft or porous condition. I admit the plants placed in such land made splendid growth at the start, but this was really a fault, and a fault one does not care to admit. The plant, say, in October, and at times well into November, made a free soft growth, which in a severe winter was damaged badly and took many weeks to get into a free-growing state again, so that valuable time was lost, and instead of cutting Cabbages in March, at a time this vegetable is more valuable, it was often May before the plants were ready. I am aware the Cabbage requires food, but not in a crude state when the seedling has to pass over a most difficult period of its growth.

The best time to feed, I have found from close observation, is early in the year, just as growth begins, and here such foods as nitrates, liquid manures, guano or similar foods will encourage the growth at the right moment. Of course, a great deal depends upon the land, if light or heavy, wet or otherwise, as regards choice of foods, but even then I would advise more attention to planting and position; an open, well-drained site should be chosen free of trees, and, if possible, land that has not borne a Brassica crop for a couple of years. G. WYTHES.

THE FLOWER GARDEN.

SALVIA ARGENTEA.

I SEND you a photograph of the beautiful Salvia argentea grown in the garden of St. Martin's House, Canterbury. From seed sown in the spring of 1908 it flowered in June, 1909, growing to a height of 4 feet, and remained in beauty for many weeks. The flowers are pure white, and the lower leaves are covered with long, silvery white hairs, from which the name of the plant is taken. Though not one of the brilliant-coloured Salvias, it is certainly one of the most effective in the flower garden, as the growth is branching, so that three or four plants are enough to form a splendid clump, which can be seen from a long distance. This Salvia is a native of Southern Europe and is quite hardy, but the best-shaped plants are obtained by treating it as a biennial. Salvia bracteata is a plant of very similar growth, with mauve and white flowers and pinky bracts, the whole effect of the plant being silvery pink. S. R.

SWEET PEA CHAT.

Autumn Sowing.—Having put the pros and cons of the case for autumn sowing before my readers in a previous article, we may now advantageously turn to the actual process of seed-sowing. In regard to outdoor management little need be said, since the cultivator will already have completed the preparation of the land and, in many instances, may possibly have got the seeds in. If the sowing has not been done, one might emphasise the necessity of setting the seeds in shallow, flat-bottomed trenches, always making the base firm and level prior to putting in the seeds. In a later issue reference will be made to one or two details of autumn culture that go to ensure success.

Turning now to the far more important phase of the question—pot sowing, the first thing is to prepare a soil mixture, and herein lies practically no trouble, for the ordinary three parts of sound fibrous loam and one part of refuse manure, with a sufficient addition of sharp sand to keep the compost quite open, will answer admirably. One could, of course, make up a far more elaborate list of ingredients, but it is certain that no better plants would be grown as a result of it, and therefore the simple compost ought to be chosen as yielding all that is required and being at the same time convenient and cheap. The mixing should be thorough, and if it can be allowed to lie upon the bench for a week or so prior to use, so much the better.

The next important consideration must be the pots. Whatever size is decided upon must be perfectly clean. To employ dirty pots is not only untidy and, consequently, not fit for the garden, but it increases the difficulty of transferring from one pot to another, or from the pot direct to the open quarters, for no other reason than that the mould adheres closely to the dirt on the inner sides of the pot and the ball of soil and roots will not come freely away. There is no doubt that quite as good results may be achieved by using the popular 3-inch pot as by the aid of the 6-inch; but when the sowing is done in the autumn the plants will assuredly have to be moved from the small into larger pots very early in the year, and this is a trouble to which some people do not care to go. These pots are too shallow to properly accommodate the roots until April, when the plants have to be put out in the open, and the result is they mat round and beneath the ball, and materially increase the difficulty of moving the plants without a check; in fact, this condition is bound to cause a more or less serious stoppage. On the other hand, if 6-inch pots are requisitioned, and five seeds are placed in each, the seedlings can be grown steadily forward, and there will always be an abundance of space in which the roots can ramify. However, this is a point that each grower must decide for himself, according to his convenience and the supplies of pots at command.

If the 3-inch are chosen, I should certainly urge the desirability, even at some additional trouble, of having only one seed in each, as it gives the young plants a far better chance of making satisfactory progress. After crocking the pots sufficient compost should be put in to come within 1½ inches, or thereabouts, of the rim, and it must be pressed down until it is moderately firm and level. Then place the seed or seeds, as the case may be, and cover with half an inch or three-quarters of an inch of fine soil. It is imperative that the soil shall be pleasantly moist at the time of use, and it must be maintained in that condition all along.

One of the worst troubles of those who sow in pots is the partiality of mice for the seeds, and many serious losses are suffered season after season. An easy and, at the same time, effectual method of stopping this pest is to put a small square of glass on the top of each pot up to the time when the seedlings appear, as the danger will then come from other directions. Directly the seeds are sown the pots should be stood on a firm base—fine cinders answer splendidly—in a cold frame, and neither then nor at any other period to the day of planting out must any attempt be made at coddling, or the results will be the reverse of satisfactory. Spencer.

SALVIA ARGENTEA IN THE GARDEN AT ST. MARTIN'S HOUSE, CANTERBURY.

THE BLUE BULBS OF SPRING.

I forget the name of the exact figure of speech which I might plead to justify the above title, for, of course, it is not the bulb that is blue; but to put it in a sort of "House that Jack Built" way, it is the flower that is blue which the plant bears, which the bulb produces. I am also going to plead guilty to a "terminological inexactitude" which results from the use of the word blue, although I might very well plead that, being a bit of a gardener, I am only using gardeners' lingo in heading a list "blue" that contains "Blue bells." There are, comparatively speaking, very few real blue flowers. I have seen several examples of that very modern development, "the Blue Garden," but I have never seen one where something was not admitted which impartial eyes would be bound to say was not exactly that colour. However, spring is a fortunate season in respect of blue flowers. In bulbs alone we have Scilla sibirica, several Muscaris, Chionodoxas, Scillas campanulata and nutans, and that exceedingly rare and scarce bulb Tecophilæa cyanocrocus, the Chilian Crocus. This last is only hardy in warm positions and light soil in the most southern parts of England, but it may be grown in pots in cold frames or cool greenhouses. It is a long time since I grew any, but one of the conditions for successful culture was to keep the dormant corms on the dry side until well rooted and to be careful to exclude frost. They should be planted with about 2 inches of soil over them.

Scilla sibirica.

This is the well-known blue Squill. No flower is much better known than this old inhabitant of our gardens. It is quite hardy, and may be left undisturbed for a very long time. It looks particularly well when used as a broad edging along a walk, or planted in large clumps in the front of a herbaceous border.

The Chionodoxas.

The Glory of the Snow is one of our earliest and loveliest spring flowers. To be seen at its best it must be grown in masses and the bulbs must be left undisturbed. It seems to be a plant that dislikes removal, for newly planted bulbs are never very strong the first time they bloom. I mention this, for anyone would be disappointed with his purchase who, having seen an old-established colony in a friend's garden, expected his own newly planted bulbs to do as well. It is very easily increased from seed, of which a plentiful crop may be harvested each year, or, better still, allowed to fall on the ground and take its chance. If no further notice is taken of them, in the course of a few years the beds will become full of little bulbs, and their pleasing variations in form and colour are most interesting. Two oblong beds in my garden are full of them, and I dig and prepare them in the ordinary way whenever it is necessary, but it makes no difference to the early carpet of blue and white which covers them each spring. There are several varieties to be found in catalogues, but for massing as I have

suggested above Luciliæ (blue with white centre) and sardensis (a beautiful gentian blue) are the most satisfactory. Gigantea is a much more open-shaped flower, and in colour decidedly inclining to mauve. It is not so floriferous as either of the other two varieties.

The Grape Hyacinth.

In everything association is a wonderful factor of interest. There are certain things which act for us all as releasers of the pent-up machinery of thought. I never see an ordinary Grape Hyacinth (Muscari botryoides) without thinking of my old gardener, who would show visitors "The Sacraments" (Cyclamen) and the "Grey Parsons" (Grape Hyacinths). And then the wheels go round, and I am for a time living in the old days again or taking an old-fashioned journey in the clouds. There are numerous kinds, and, unfortunately for us gardeners, the naming of them is so much a botanical puzzle that we never quite know what we will get if we leave the beaten track of popular varieties; hence it is well to be careful when ordering. Azureus (called also Hyacinthus azureus) is the earliest. It flowers while we still expect snow, and I have often seen the little low-growing heads of pale blue standing up out of a thin coating of snow. Muscari botryoides is the old man of the race. It has been an inhabitant of our gardens for very many years. Now, however, it is eclipsed by the wonderful variety Heavenly Blue. It is an introduction from Trebizond, and is another real gentian blue flower. It begins to bloom in April a little after the old botryoides, and remains in perfection for a long time. It is exceedingly floriferous, and as it increases rapidly and very small bulbs can be counted on to throw a flower-spike, it soon makes an effective mass. It is deliciously scented. If a scent can have a relation I would say it must be a first cousin to the old Clove. The Starch Hyacinth (Muscari paradoxum) has considerably bigger heads of flowers of the darkest blue; in fact, it is too dark to be very effective, but I mention it because it is so distinct, and a few clumps in a mixed border are a decided change from the other Muscaris. Another very lovely form is one that I have under the name of atlanticum. It has a much more pointed spike than Heavenly Blue, and in colour it is of a richer and purer-looking blue than even that beautiful variety. It flowers, too, somewhat later. The last variety that I must refer to is Heldreichi, which is distinguished by its paler colouring and the thin line of white which margins the mouths of the individual bells.

Scillas campanulata and nutans.

These are what are popularly called Wood Hyacinths. Nutans is the one which carpets our woods in early summer or late spring. Its bells are arranged more or less on one side of the spike, and as the unopened flowers are arched over, the inflorescence has a sort of fanciful resemblance to a bishop's pastoral staff. In campanulata the bells are larger, and they are arranged all round the stem. There are to-day many beautiful new shades, and we can have not only blues, but also several shades of rose or lilac rose and white. Excelsior is an exceedingly fine pale blue form of this useful plant, and Rose Queen is one of the best of the rosy shaded ones. They are a very hardy race, and may be said to grow anywhere and to take care of themselves under almost any circumstances. In bare, shady places and in thin woodlands they are of the greatest value. They are decidedly effective in herbaceous borders, and the best kinds should be procured—they are such great advances on the old types and kinds. In conclusion, although not strictly germane to the subject, I would like to say that I have found them most satisfactory in pots. They may easily be forced into bloom in March and early April. Joseph Jacob.

A SPRAY OF THE NEW HELENIUM RIVERSLEA BEAUTY. (*Natural size.*)

HELENIUM RIVERSLEA BEAUTY.

This is a handsome new variety of a well-known family of autumn-flowering plants, and is said to be the result of a cross between a variety of H. autumnale and H. grandicephalum striatum. The ray florets are bright yellow and the disc is rich brownish crimson, the two colours providing a flower of great beauty. It was shown before the Royal Horticultural Society on September 14 by Mr. Maurice Prichard, Christchurch, Hants, when it received an award of merit.

COLCHICUM BORNMUELLERI.

Lovers of the Meadow Saffron who are not unwilling to give a good price for the sake of owning the best of these useful flowers should not omit to secure Colchicum Bornmuelleri, one of the best of the large-flowered Meadow Saffrons. It comes of a rather pale lilac, with a white centre of considerable size, but passes off a good purple. The leaves, which are produced in spring, are broad and rather handsome, but the main beauty and value of the plant lies in the fine flowers, which come in September and October. They are dwarfer than those of the largest varieties of C. speciosum, but are as fine in their appearance, and a big group in the border or on the grass is very beautiful. Deep planting should be practised with these large Meadow Saffrons, and from 6 inches to 9 inches of soil above the crowns will not be too much.

S. A.

EREMURUS ROBUSTUS.

The Eremurus shown in the illustration is the tallest and most striking of this tribe. This is about the best time to move them. It is not advisable to leave them in the same place more than three years, and where soils are inclined to be wet it is better to lift them annually, clearing away the old decayed root below the new one, a fresh root being formed every year. It is beneficial to keep the plants out of the ground for two or three weeks or even more, so as to entirely dry them, and replant in fresh material. They do very well in soil of a heavy nature if the bed has been well trenched to a depth of 2 feet to 3 feet, the bottom filled with broken crocks and any rough

ANSY "MATCHLESS"

(WATKINS & SIMPSON).

Two-thirds natural size.

material to keep the soil well open beneath the plant and some decayed manure and bone-meal mixed with it. They are partial to lime and old mortar rubbish, which should be mixed with the soil at the time of planting. I should say that they do not suffer in the least from annual lifting, owing to the fact that when growth is completed the plant is dormant for a month or six weeks; but when soil and situation are suitable, they may well be left two or three years. All lovers of the Eremurus owe a debt of gratitude to the late Sir Michael Foster for the interest he took in these plants and the many fine forms he raised. Some of these are in the hands of Mr. R. W. Wallace of Colchester, and among them the fine Sir Michael, which last July received a certificate of the Royal Horticultural Society. Among some of recent introduction Warei is the best, being a deep orange copper colour. There are some beautiful hybrids of a deep shade of salmon between Bungeii and robustus. There are also forms of Olgæ quite deep in colour.

Stratfield Saye Rectory. F. Page-Roberts.

COLOURED PLATE.

PLATE 1385.

PANSIES AND THEIR CULTURE.

THE Pansy, or Heart's-ease, has for a great many years been a favourite in English gardens, and although the older forms do not now find much favour, the newer varieties are very extensively grown. This is not surprising considering how easily the plants may be raised from seeds and subsequently grown on and flowered over a long period.

Two seasons of the year are usually selected for sowing seeds, namely, early spring and the end of June or during July. At the first-named period seed is sown in well-drained boxes or pans of rather light soil and placed in a warm frame or greenhouse near the glass, and as soon as the seedlings are an inch or so high they are pricked off 2 inches or 3 inches apart into other boxes or pans filled with soil containing a good proportion of flaky leaf-soil or thoroughly decayed manure, either of these substances inducing the formation of fibrous roots. As soon as the young plants have become well established in these receptacles a process of hardening off must be resorted to, gradually providing them with more air and a cooler temperature. When finally hardened, which should be about the middle or end of April, the plants may be transferred to the beds or border, a well-worked, moderately rich and rather moist situation suiting them best.

The midsummer or July sowing is usually made in a prepared bed outdoors, choosing for this a cool but not overshadowed position. If sown thinly in drills 9 inches apart and subsequently thinned to 3 inches asunder in the rows, the thinnings being pricked out in other rows, the seedlings will form nice sturdy plants by the middle or end of October, when they may be planted in their permanent quarters or, if the natural soil is wet and cold, planted so as to nearly but not quite touch each other in a cold frame for the winter, placing them in the open beds about the middle of March. The advantage of securing plants from a midsummer sowing is that they commence to flower earlier in the year than those sown in the spring.

Naturally, where seedling Pansies are to be grown, a good strain such as that depicted in the accompanying coloured plate must be selected. The flowers there depicted are Messrs. Watkins and Simpson's Matchless strain, and the coloured photograph from which the plate was prepared was of the flowers kindly supplied by this firm. It will be noted that the flowers of this strain are of excellent shape and comprise a wide range of beautiful colours.

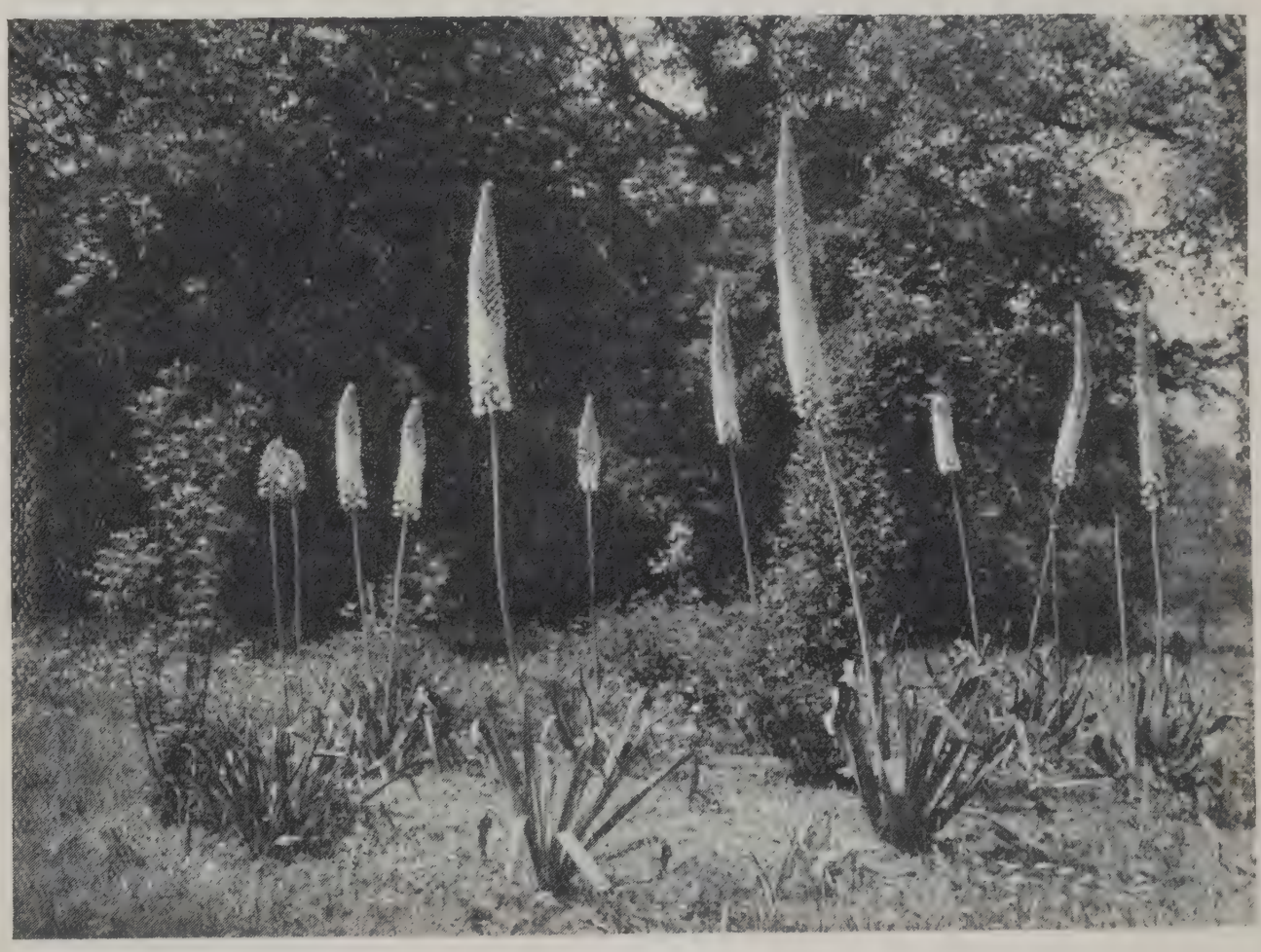
THE FERN GARDEN.

HART'S-TONGUES FRILLED AND TASSELLED.

MOST people are familiar with the common Hart's-tongue Fern (Scolopendrium vulgare), which in many places, and more especially in our Western Counties, can be seen dotting old walls, growing between the chinks of the bricks or stones, with its strap-shaped fronds a few inches long, or tenanting the hedges with much bolder growths of, it may be, a couple of feet, or even more, in length. We have in Great Britain no other Fern like it; its dark green fronds consist of a short stalk surmounted by a plain, smooth-edged, undivided frond, commencing at the base with two semi-circular lobes, and after forming an even strap for some distance, tapering somewhat abruptly to a bluntish point. At the back of the fronds when mature we shall find two rows of brown sausage-shaped spore heaps, arranged herring-bone fashion, at short distances, somewhat resembling the legs of a centipede, whence the botanical name, from scolopendra, a centipede. In places where this Fern is abundant we shall probably not hunt for long without finding plants of it with the fronds more or less forked or fingered at their tips, and if all the fronds, not merely one or two, be so characterised, this forms a constant variety known as S. v. lobatum. This, however, gives but a very faint idea of what this simple Fern is capable of doing in the "sport" line, since it is quite safe to say that no other Fern in the world has managed to vary so much and in so many different ways; its distinct varieties, indeed, may be numbered by the hundred. Then there are scores in which the forking is carried to such an extent that the fronds are more or less heavily tasselled; they may also be branched lower down, forming numerous tassels per frond, the fronds may be narrowed, the smooth edges may be more or less deeply cut, the surface may be roughened and ridged in many ways, the basal lobes may be much lengthened and even tasselled; and apart from all these variations, several of which may be combined in one plant, there is the beautiful frilled or crispum section, undoubtedly the prettiest of all.

In this section, instead of a flat strap we find the frond to be widened and deeply frilled, so that a well-developed specimen forms one of the handsomest foliage plants imaginable. Owing to this extra development the thorough-bred crispums are quite barren of spores, all their energy running to leafage. There are, however, some crispums which are fertile, but the edges are always irregular, and although very charming plants in the young state, they lack perfection as adults. There are quite a dozen true crispums recognised as distinct by having longer stalks, wider fronds, deeper frills and laxer habit of growth, but all are good. Not content with these frills, Nature has gone even further still in some cases and added fringes (crispum fimbriatum), while probably by accidental crosses between tasselled forms and fertile crispums there are forms which are tasselled, frilled and fringed to boot. It is a singular fact that all the true crispums have been found wild, and it is recorded that Colonel Jones, one of the chief pioneers in British Fern culture, found sixteen or seventeen separate plants in one lane in South Wales, which means, since they are all barren, that some apparently common Hart's-tongue in the locality had the faculty of producing crispums through its spores. S. v. crispum Drummondiæ, found in Cornwall, is one of the most remarkable natural sports, since it bears two sorts of fronds—one kind very long and narrow, smooth edged and frilled, with a broad, spreading tassel, and the other resembling these in general outline, but with deeply fringed and frilled fronds, the fringes yielding young plants by aposporey when cut off and layered. S. v. c. Drummondiæ superbum raised from this has all the fronds true to the fringed type. The tasselled section of Hart's-tongue are very beautiful in a different fashion. As the species is entirely evergreen, the Hart's-tongue is an ideal Fern for cold or cool conservatories, retaining its fronds in good condition well into the second season. It does well in ordinary good garden soil, and likes a little old mortar rubbish added. Given this and a little care in watering, no foliage plant will better repay the cultivator.

Chas. T. Druery.

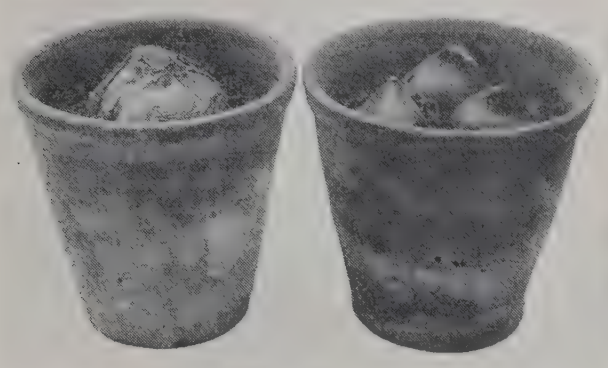


A NOBLE FLOWER: EREMURUS ROBUSTUS IN THE REV. F. PAGE-ROBERTS'S GARDEN.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—As nearly all the summer-flowering plants have been cleared away from the beds in the flower garden, some effort ought to be made to fill the borders again even where bulbs are not grown. Small evergreens in flower-pots are capital plants for the purpose. It does not matter very much



1.—BULBS OF HYACINTHS AND TULIPS IN POSITION BEFORE BEING SURROUNDED WITH SOIL.

what kinds are employed, as they are all suitable for the filling of the beds if they are small and compact. Nice Euonymuses, Aucubas, Laurustinuses, Weigelas, Veronicas, small conifers and similar subjects will do. The pots must be buried so that the rims are slightly covered with soil. Beds may be filled with a mixed collection or with separate kinds and varieties. At this season of the year the paths soon become sticky with fallen leaves if the latter are allowed to remain on them many days without being swept up. Not only is it unpleasant to walk upon the damp leaves, but through the pressure of the boots and the wheelbarrows many leaves get crushed and stain the gravel very badly. Remove every bit of decaying rubbish from the garden forthwith, and either put it in a heap and sprinkle dry lime on it or reduce it to ashes in a slow fire. Lawns must not be swept while they are in a saturated state, neither should they be rolled. Both the sweeping and the rolling are more pleasantly and effectively done when the grass is dry, and the worm-casts will crumble before the broom and under the roller. If very wet, the surface is rolled into waves.

Vegetable Garden.—Having collected sufficient stable manure wherewith to make up a Mushroom-bed, the work must be done without any delay so as to conserve the heating qualities of the material. The bed may be constructed in any shed, or even in the open air; but I will confine these hints to indoor beds. The cultivator may decide to have the first bed 8 feet long, 4 feet wide and 14 inches deep. This is a very useful size. In the first place, spread out the manure in a thin layer and thoroughly tread it down; then put on another layer and serve it the same; treading is better than beating with a mallet. When the bed is completed and the temperature is about 85° on the decline, put in the lumps of spawn 9 inches asunder, 1 inch deep, and then cover with sifted loam to a depth of rather more than 1 inch. Cover the bed with straw 1 foot thick and keep the shed darkened. Finish clearing away all Asparagus stems, weeds and other foreign matter from the beds and trim the edges, taking up loose soil from the alleys and spreading it on the surface of the beds, but do not put on any manure as a winter dressing until just prior to the coming of severe frosts. Where spring Cabbages have died make good the losses without delay.

Fruit Garden.—There is much to be done at the present time in the fruit garden—root-pruning, branch-pruning and the ordering of new trees. All this means work if the various operations are to be carried out thoroughly, as they should be. A fruit tree that makes gross shoots year after year, casts it flowers in spring and does not bear fruits satisfactorily, needs root-pruning. If we continue to prune the branches only every winter we aggravate the evil, making the trees produce still stronger wood, which does not ripen and bear healthy fruit-buds. The long, rambling, fibreless roots must be checked, and the present is a good time to do the work. The whole, or only half, of the tree roots may be pruned this season. If only half, the remainder should be done next autumn. The trenches should be refilled with some gritty material mixed with the original soil and made very firm. Defer the planting of young trees until next month, but make out a list of those required at once and send off the order in good time.

Greenhouse and Frames.—Do not suddenly deprive plants which have been growing in the open for some time past of a fair amount of air after they are placed in the greenhouse or the frame. If so a sudden check will result. Even when frosts or cold winds prevail a certain amount of fresh air can be admitted. Auriculas now growing in frames should be placed in the greenhouse if the latter is of moderate height; if very high, then keep the plants in the frame, especially if the latter can be heated at will. Wash all soiled pots in both structures. B.

POTTING HYACINTHS, TULIPS AND CROCUSES.

ALMOST every beginner in plant culture thinks seriously of potting up a number of bulbs in the autumn, and among the first subjects selected for the initial experiment are Hyacinths, Tulips and Crocuses. For this reason I am giving special consideration to these subjects in the hope of meeting the needs of those readers who know little or nothing of these bulbous plants. The first of the three subjects I propose to deal with is the Hyacinth. As a subject for pot culture it is one of the best for a beginner to take in hand, because, given ordinary conditions of culture, good results are bound to accrue. A most important point in selecting Hyacinth bulbs is to secure hard, sound, well-ripened specimens that are heavy for their size, as bulbs of this character invariably produce fine spikes of blossoms. Bulbs that are of a soft and spongy nature are better left alone. Another point of importance is to do the potting in good time. Hyacinths do better when given a long season of growth, and for this reason they should be potted up as early as convenient. A suitable compost for growing Hyacinths should comprise three parts good fibrous loam, one part leaf-mould and one part thoroughly decayed manure. To the foregoing add a sixth part of coarse silver sand or clean road-grit. The loam and other ingredients should be chopped up roughly and the whole then be well mixed. Keep the compost in the cool under cover and use as and when required.

Pots 5 inches in diameter will accommodate one ordinary bulb, and this should yield good results. Three bulbs in a pot 8 inches in diameter will make an excellent display, and where economy in greenhouse space has to be recognised this method has advantages. The pots and potsherds should be washed quite clean before using, and the crocks should be used freely and be disposed carefully in the bottom of each pot. One good piece of potsherd should cover the hole in the bottom of the pot and smaller pieces be arranged neatly over this, to be covered in turn with some of the rougher portions of the compost to prevent the soil working down into the drainage. Fill in sufficient soil to allow the point of the bulb to be just below the rim of the pot. When adjusted in position, the Hyacinth bulb should present an appearance as represented on the left of Fig. 1. Fill in the soil, subsequently making this moderately firm, so that when finished the neck of the bulb shall be just visible above the soil, as portrayed on the right of Fig. 2. When the potting operation is completed, it is a good plan to cover each bulb with a small sixty (3-inch) pot, as represented on the right of Fig. 2. All that then remains to be done is to stand the pots on a bed of sifted coal-ashes to prevent the ingress of worms and, subsequently, cover with coal-ashes, sand, Cocoanut fibre refuse, spent Hops, &c., to the depth of 6 inches or 8 inches.

The method of plunging the pots is aptly illustrated in Fig. 3. Assuming the soil is moderately moist when the bulbs are potted, no water will be required, and the cool conditions that are made to prevail while the pots are plunged disposes of the necessity for watering during this period. The plunging-beds may be made up outdoors or in a cold frame, at the will or convenience of the grower. Within six weeks it should be possible to remove the more forward plants to the cold frame, where they should be gradually inured to the light, and later on be removed to the conservatory or greenhouse as required to maintain the display there. Keep the soil moist after the plants are removed from the plunging material, or the roots will quickly suffer.

Tulips are almost as indispensable as the Hyacinths for winter and spring displays under

2.—THE POT ON THE LEFT SHOWS THE HYACINTH AFTER POTTING WITH THE NECK JUST VISIBLE ABOVE THE SURFACE SOIL. ON THE RIGHT IS SHOWN THE METHOD OF COVERING THE BULB WITH A SMALL POT WHILE IT IS STARTING INTO GROWTH DURING THE PLUNGING PERIOD.

glass, and may be reared with comparative ease in cool or heated glass houses. Soil similar to that advised for Hyacinths suits the Tulips very well, so that the preparation above mentioned should be utilised for them. See that the pots are well drained, and place three or four bulbs in a 5-inch pot and five or six bulbs in a 6-inch pot, according to the size of the bulbs. The latter should be almost buried, and in placing

3.—METHOD OF PLUNGING THE POTS DURING THE EARLIER ROOTING PROCESS. THE POTS ARE STOOD ON SIFTED ASHES AND ARE COVERED WITH 6 INCHES TO 8 INCHES OF COCOANUT FIBRE OR ASHES.

them in position they should represent an appearance similar to that seen on the right of Fig. 1. Select bulbs for pot culture of even size as far as possible, as uniformity in size may probably ensure their blooming together, which, of course, is most desirable. Plunge the pots in material similar to that recommended for Hyacinths, and remove after six weeks as and when needed. Tulips are moisture-loving plants, and take kindly to an occasional dose of weak liquid manure. Bedding varieties only should be forced.

Seldom are the Crocuses grown as well as one would like. They are more deserving of culture in pots and pans than is generally recognised. Six corms in a 6-inch pot will make an interesting display. I prefer, however, to grow twelve corms in a deep seed-pan 10 inches in diameter. I deprecate crowding the bulbs together as many growers are prone to do. Use soil as advised for Hyacinths and Tulips, and after carefully crocking the pans (or pots) and partially filling these with the prepared compost, the corms should be adjusted in position in the pan, as represented on the right of Fig. 4. It will be observed that the bulbs are not unduly crowded, but ample space left for development. The pan on the left of the same illustration shows the soil filled in and the pan ready for plunging. When well furnished with roots and growth is indicated well above the soil, the pans should be placed in the cold frame, and later on in the conservatory or dwelling-house. When the flowering season has concluded, harden off the bulbs and plant outdoors for future displays. D. B. C.

THE OUTDOOR CULTURE OF TULIPS FOR AMATEURS.

THE Tulip is a favourite flower with many people, yet in the average villa suburban garden we find such poor specimens that it will doubtless be of interest to many amateurs to know the proper method of cultivating this spring bulb. Glancing down a seedsman's catalogue one is confronted with the names of many expensive varieties—expensive on account of their newness or originality—and on the score of expense, with its increased dissatisfaction when failure is experienced, the writer advises the amateur to use the older, cheaper and inexpensive varieties. A splendid display can be made by these bulbs for table decoration, as the flowers last a long time in water when cut.

To get the maximum amount of show in the garden from Tulips, a proper selection of varieties should be made. Early and late flowering single and double bulbs should be chosen, so that a succession of flowers can be had from April to the latter end of May. Exquisite patches of colour can be had from such bulbs as Chrysolora (yellow), Pottebakker (white), Village Maid (rose and white), and Keizerskroon (crimson, with yellow edge).

Tulips are quite hardy and prosper almost as well in shade as sun, although for first-class results open ground should be selected. The proper time for planting the bulbs is from early October to mid-November if the weather is not too wet. If the amateur is thinking of growing some Tulips, the ground should be enriched at the present time with a sprinkling of bone-dust.

Bulbs as a whole dislike stagnant soil, and thus the worker must see that the soil is well drained either naturally or artificially. In planting do not choose a wet season, and if the ground is soddened from recent rains it is best to wait a week or ten days till it assumes a natural aspect. With respect to the depth of the hole necessary for receiving the bulb, the size of the bulb should be taken as a guide and a hole made in the soil equal to twice the length of it. The holes should not be made less than 5 inches apart, thus giving the bulbs plenty of scope to extend their roots and to obtain the nourishment desired. When all the bulbs have been planted, fill up the holes with fine soil free from stones and carefully rake over the top. The next stage commences when the growth is pushing through the soil, when the ground should be carefully loosened with the hoe, taking care not to injure the young shoots.

When Tulip bulbs have been planted among other flowers, it is inconvenient to lift them, so that they must be allowed to remain in the ground. If at all practicable, they may be lifted each June (about the middle of the month) and then carefully dried and stored in a dry place.

When lifting the bulbs it will be noticed that smaller ones have made their appearance, which can be planted as occasion offers. It is best to plant the small bulbs in a separate piece of ground by themselves, so as to develop into fine flowering bulbs by the next season. G. P.

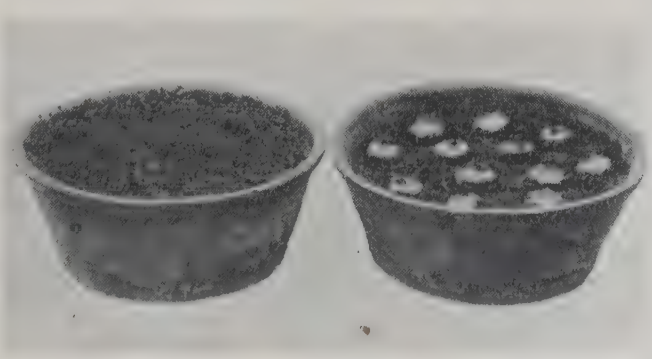
CLIMBERS FOR FRONT OF HOUSE.

[In Reply to "F. P. H."].

THE position being very warm and fully exposed to strong southerly gales, it would be useless to grow plants which make long and rambling growths, such as Roses, Honeysuckle, Clematis, or the Wistaria, and therefore the selection of suitable subjects is considerably narrowed down and must be confined to plants of more dense and stubborn growth.

One of the best among these is the Evergreen Thorn, Cratægus Pyracantha. It bears a profusion of white flowers in summer, and in winter is clothed with brilliant red berries.

Chimonanthus fragrans, the Winter Sweet, would succeed well. This is a deciduous plant, the flowers, which are deliciously sweet, appearing before the leaves in February. Ceanothus azureus would make a lovely climber for such a position. It is of compact habit, rather slow of growth, but it would reach the roof in time. Its lovely blue flowers are borne freely in summer, and last in bloom for a long time. The gold or silver Ivy would succeed in such a position, and would in a few years furnish a lovely covering for the wall; so also would the gold or silver Euonymus.



4.—ON THE RIGHT OF THE PICTURE A DOZEN CROCUS CORMS ARE ARRANGED EQUIDISTANT IN A 10-INCH SEED-PAN, AND ON THE LEFT THE CORMS ARE COVERED WITH SOIL PREPARATORY TO BEING PLUNGED.

THE TOWN GARDEN.

VACANT FLOWER-BEDS.—There are now many flower-beds from which the summer bedding plants have been lifted. In some instances there is no attempt made to fill them with spring-flowering subjects. There is, however, another way of making the garden look beautiful in winter and springtime without filling the borders with bulbs and other kinds of spring plants. By making a judicious selection of dwarf shrubs growing in small flower-pots a very pretty and attractive garden is the result. Not only are bare borders unattractive, even when they are occasionally raked over, but birds, cats and dogs give much trouble constantly by scratching the soil up and scattering some of it on the lawn. Aucubas, Euonymuses, Hollies, Ivies and similar plants growing in pots may be plunged in the beds—just burying the rims of the pots under the surface of the soil—at a certain distance apart so as to give an immediate furnished effect. The shrubs may be all of one kind for certain beds, or they may be mixed according to the wish of the owner. Furthermore, they may be of varying heights, or as nearly uniform as possible.

WINDOW-BOXES.—These receptacles for the summer-flowering plants may be treated in exactly the same way as the flower-beds—that is, filled with tiny shrubs in small pots. Ivies should be largely used in the filling of the window-boxes, as they are so very effective in such positions, and there is much variety. The gold and the silver leaved sorts, as well as the green ones, look very bright and warm in winter.

STORING PLANT ROOTS.—The roots of Dahlias, Cannas and the bulbs of Gladioli and tubers of Begonias must now be stored for the winter season. In some establishments there is every convenience for the safe storing of these different roots, but in others there is not a single convenience, and so some safe place must be utilised for the purpose. In some instances early frosts have cut down the foliage of Dahlias, and much care must, in consequence, be taken in the preparation of the affected plants before the roots are stored. In the first place it will be necessary to cut off the main stems low enough down to avoid retaining any frozen portion. Usually I leave the stems about 1 foot long, but if frozen they must be cut off lower down. Every leaf should be cut off, and the tubers must be very gradually dried in an open shed. When nicely dried pack the tubers in dry sand or dry sifted soil and leaf-mould, burying the crowns about 2 inches deep. Any shed will do if it be frost-proof. A loft also may be utilised for the same purpose. I remember one cultivator storing his Dahlia tubers on the floor of a loft and lightly covering them with loose straw; a severe frost came, and the icy wind blew under the door and along the floor of the loft, with the result that all the tubers were frozen. If the tubers had been surrounded by boards placed on edge and packed in dry soil or sand, in addition to the covering of straw, they would have been quite safe. The roots of Cannas should be stored in the same way. The tubers of Begonias must be dried gradually on a floor; a quantity of soil adheres to the fibres attached to these tubers, and only the outer portion of such soil should be rubbed off before the tubers are neatly laid in single layers in shallow boxes and well packed around with dry sand. When the tubers are made snug in the boxes, the latter should be placed in a spare room. In frosty weather place some sacks on them, and they will be quite safe. The Gladiolus corms must be dried and then put into paper bags, and the latter also kept in a spare room. There is no very special feature whereby an amateur can determine the correct names of the various bulbs and roots, so I advise all cultivators to see that the true names are attached before the work of storing is finished. AVON.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUIT DEPARTMENT.

GRAPES.—Should the weather keep damp, late Grapes hanging will need going over twice weekly and any bad berries detected carefully removed to prevent others from getting mouldy and spoiled. Take great care to keep the atmosphere dry by applying sufficient heat in the pipes and admitting air on all favourable occasions. If the Grapes are perfectly ripe, a night temperature of 55° will be ample, and if the foliage and lateral growths about the Vines are too thick, shorten them a little so as to admit both light and air. Those who are about to plant late Grape Vines should see that the drainage is perfect and the borders made up of the best material obtainable. If made up at the present time, it will allow a reasonable length of time for it to subside before planting in February. Lady Downe's and Alicante are varieties mostly grown for late use, though there are other good varieties well deserving of room. Mrs. Pince at the warmest end of the house will usually succeed, and Appley Towers ought to be more extensively grown; in fact, I wonder at times why this variety has not been more planted for late use. With me the bunches and berries usually attain a good size, and finish and keep well. Keep Muscats cool, but avoid cold draughts, otherwise the berries quickly shrivel.

Pot Strawberry Plants.—The time has now arrived when these must be protected by some means. If frame room is available, plunge the pots up to their rims in leaves, and with the protection of lights in frosty or in very wet weather they will keep splendidly. In the absence of frames, plunge the pots in coal-ashes in a sheltered position, and protect when required with a covering of Bracken or long litter. Although considered hardy, the crowns sometimes get badly damaged in severe weather when grown in pots.

PLANTS UNDER GLASS.

Adiantums.—For supplying early fronds, plants which were kept on the dry side and which were cleared of their old fronds may now be started into growth. Keep them in a fairly warm temperature and supply water in a slightly tepid state. After the new fronds have fairly developed, the plants may be stood on shelves near the light to get somewhat hardened.

Caladiums.—To keep these sound during the winter months they must be given a warm position. A good plan is to shake the tubers from the old soil and place them in boxes or pans among dry sand, standing the boxes at the warm end of a stove till fresh growth begins in spring, when they may be transferred to pots.

Gardenias.—Now is a good time to root a fresh batch of these. If cuttings are inserted in a sandy compost and stood in the propagating-frame they should soon root, and with due care develop into fine specimens during next summer. Keep the larger plants which are to flower in spring clean and free from insects. Be careful in watering, and feed a little at intervals with Clay's Manure.

Poinsettias.—Keep these in a light position near the glass and in a warm temperature. See that the roots do not suffer from dryness, and assist the plants with a little liquid manure. When potting, do not give them too large a shift; fine heads can be obtained in moderate-sized pots with good attention.

H. MARKHAM.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

FLOWER GARDEN.

ROSES.—Where planting of these is contemplated the soil should now be prepared and got into position while yet in good working order, also to allow of its partial settlement before the plants are inserted therein. Soil inclined to heaviness is best suited to the Rose family, and if that cut from pasture land is used, the same stacked for a few months ensures its more easy reduction to the necessary fineness. The latter state, however, is not very important providing sufficient mould is obtained for placing in immediate contact with the roots. The best manure obtainable should be used and be well incorporated with the soil before making up the beds; the depth of these as a rooting medium when finished should not be less than 18 inches. Decorative varieties of much merit are Captain Hayward, Frau Karl Druschki, General Jacqueminot, Margaret Dickson, Mme. Gabriel Luizet, Mrs. John Laing, Ulrich Brunner, Bessie Brown, Caroline Testout, Betty, La France, Liberty, Mme. A. Chatenay, Viscountess Folkestone and Mrs. W. J. Grant, which may be relied on, as dwarf plants, to produce blooms throughout the season.

Bulbs for Naturalisation.—This style of embellishment of the pleasure grounds has deservedly become very popular, and never before could such great variety of form and colour be obtained at such small cost as at present. Narcissi in variety are probably the most valued for this, for planting in grass, among trees, or upon shrubbery borders, where they hold their own under somewhat adverse conditions better than most. Varieties suitable for the purpose are numerous, as any good catalogue will show. A few selected at random are Ard Righ, obvallaris, Barrii conspicuus, Sir Watkin, Horsfieldi, Mrs. Langtry and other varieties of Leedsii; while for late blooming the Poet's Narcissus, N. Poeticus and its double form are superb. In planting in turf the bulbs may be from 6 inches to 12 inches apart, and should be placed 4 inches below the surface. Holes may be made with a stout iron bar of sufficient depth to allow of a handful of good soil being put below the bulb if the soil is of poor quality and the same used above, after which the turf may be trodden quite firm. Aconites, Snowdrops and Crocuses, which flower in the order named, herald the approach of spring and should be planted wherever space can be found.

BULBS UNDER GLASS.

Continue to pot and box Hyacinths, Tulips and other bulbs required for spring flowering. If Lily of the Valley is wanted during the next four months, retarded crowns or clumps must be requisitioned, and with these, if flowers are wanted at a given date, three weeks at least must be allowed to elapse from the time of placing the roots in heat.

KITCHEN GARDEN.

Cabbages.—The main crop for next summer's supply of heads may now be planted. Ground in good heart needs but little preparation, hoeing or turning the surface with a fork being usually sufficient, as the firm rootrun below tends to sturdiness in the plants. Red Cabbage, according to the demand, should be planted at the same time.

Cauliflower seeds sown last month will now have produced plants large enough for putting into pots, boxes or frames for the winter, while some may be planted under the shelter of a wall or house upon the chance of their surviving the atmospheric conditions ahead.

Cauliflowers and Early Broccoli.—The general absence of frost has resulted in an abundance of vegetables being now available, and the species named are turning in more rapidly than could be wished. To prevent their going to waste, a spadeful of soil may be taken from the north side of each plant and the root turned into this hollow and duly covered with soil, which will check growth and very considerably prolong the supply of heads now ready or nearly ready for use.

JAMES DAY.
(Gardener to Sir Malcolm M'Eacharn.)
Galloway House, Garlieston, Wigtownshire.

NEW PLANTS.

CATTLEYA HARDYANA THE BARON.—This is an exceedingly beautiful flower and worthy of the highest honour. The sepals and petals are both pure, dense white, and, as both are large, they form a splendid background for the large and brilliant labellum, which is bright purple, with cream and yellow markings in the throat. Shown by H. S. Goodson, Esq., Fairlawn, Putney. First-class certificate.

Cypripedium Fair Maude.—This is the result of a cross between C. fairieanum and C. Maudiæ, the flower showing unmistakable signs of the first-named parent, being, however, larger, especially in the dorsal sepal. The plant shown was a small one and was carrying only one flower. Shown by Mrs. Norman Cookson. Award of merit.

Dendrobium Taurinum Colmanii.—This is a very beautiful and distinct variety of a little-known member of the Dendrobium family. The sepals are small, lance-shaped, highly reflexed and of a dirty creamy white hue. The petals are long and very narrow, each being twisted into a sort of corkscrew shape, and of a dull plum colour. The labellum is comparatively large and creamy white at the base, with a decided edging of pale purple. Shown by Sir Jeremiah Colman, Bart., Gatton Park, Reigate. Award of merit.

Cirrhopetalum Fascinator.—A small but exceedingly interesting member of this family, the labellum being extended into a long, cord-like appendage that renders the flower a very striking object, the general colour being dull crimson. This was also shown by Sir Jeremiah Colman. Award of merit.

Cypripedium Cynthia Westonbirt variety.—This is a very clear-coloured and pleasing variety, the large dorsal sepal having a broad margin of pure white, below which comes a band of purple dots, and finally other dots of dull crimson on a greenish ground. The sepals and petals are of the usual glossy brownish green hue. Shown by Lieutenant-Colonel Holford, C.V.O., C.I.E., Westonbirt, Tetbury, Gloucester. Award of merit.

Chrysanthemum White Queen.—A very handsome pure white variety, of exhibition standard and much excellence, the flower-heads being of exceptionally large proportions. Shown by Mr. Silsbury, Isle of Wight. Award of merit.

Chrysanthemum Mary Farnsworth.—This is also of large exhibition size, and, being distinct in colour, will doubtless be much sought after. The colour is orange buff with pale fawn shading. Shown by Messrs. Stredwick and Son, St. Leonards-on-Sea. Award of merit.

Rose Claudius.—A very fine Hybrid Tea with powerful fragrance. The colour is rose, shading from pale to deep, the shapely flowers being produced on long and stiff stems. Shown by Messrs. B. R. Cant and Sons, Colchester. Award of merit.

Aster Lustre.—A rather showy and good variety of distinct rose pink shade, the flower-heads showing an inclination to become double. Shown by Mr. E. Beckett, Aldenham House Gardens, Elstree. Award of merit.

Streptocarpus (*Strain*).—The Elstree strain of these useful flowers is well known, and contains some of the most decisive colours we have seen in conjunction with a somewhat compact habit. The white and the varying shades of blue are in every way excellent. Shown by Mr. E. Beckett, Elstree. Award of merit.

All the above were shown before the Royal Horticultural Society on the 12th inst., when the awards were made.

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London, W.C.

Old Irish Apples.

Mr. W. B. Hartland, Ard Cairn, Cork, sends us four old Irish Apples, three of which we find of very distinct flavour. Holland Pippin is a cider Apple with a refreshing Quince-like flavour, Gibbon's Russet is a sweet, solid-fleshed variety known in some districts of Ireland as Cherry Brandy Apple, and Ard Cairn Russet is a lovely russety Pearmain Apple of delicious flavour and solid, juicy flesh. Molly is too soft and tasteless for our palate, though it is very sweet. Mr. Hartland writes: "I have for about twelve years been trying to collect in the Ard Cairn Nurseries the Apples under the names I knew them in my grandfather's garden at Belleview, Mallow, in this county. The old man came from Kew Gardens to Ireland at the end of the eighteenth century, and he knew what good Apples were. I have several, and send you the fruit of three. If you look into John Scott's and some other pomologists' works, you will see much diversity of opinion as to what was the Holland Pippin. The one I send you was known by that name in Ireland when Arthur Young visited it, and I am sure when he spoke about the Apples he saw during his tour the three sorts I send were in the gardens of Dromoland, the seat of Lord Inchiquin. The orchards of that time have all been rooted out for the last twenty years; but I have got scions of such varieties as I knew seventy years since, and we have them here now in trees and most interesting. Try them all and tell me what you think of them. I suppose I could make up a collection of over twenty sorts rescued from the dear old soil. P.S.—I also send you a fruit of Ard Cairn Russet—another find."

Double Michaelmas Daisy E. T. Anderton.

Messrs. Child and Co., Edelweiss Nurseries, Acocks Green, Birmingham, send flowers of this beautiful novelty. It is not unlike those that have recently received the award of merit from the Royal Horticultural Society, as it belongs to the double-flowered class; at least, the flowers are almost so, only a small portion of the yellow centre being visible. The colour is soft blue, and the stems are sturdy, suggesting that they will be of the greatest value for indoor decorations, the plant reaching to a height of about 3 feet 6 inches. We shall probably in the near future have a flood of Asters of this type, but those we have already seen possess great merit.

Flowers from Duns.

Dr. McWatt sends from Duns a most interesting collection of autumn flowers, consisting of the late-flowering Pavia macrostachya and a delightful series of seedling Delphiniums of exquisite shades of blue for the most part; also Blue Primroses, Cotoneaster frigida, with its wealth of red berries, Starworts or perennial Asters, blue Veronicas, Lythrum elatum, Pyrethrums and the Moon Daisy (Pyrethrum uliginosum). We commend our correspondent for his Delphiniums; they were exceedingly fine.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* The Garden *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* Editor of The Garden, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* Publisher. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Polygonum baldschuanicum (*H. P. B.*).—We do not understand why the plant having made growth has not flowered, as the one is governed by the other, unless the growth is proportionately weak owing to the plant being over-shaded. The plant appears to prefer a sunny place and a light soil, and quite small plants put out in the spring of this year have reached nearly 10 feet high and flowered profusely. Others near in the same garden put out two years ago have been wreathed with flowering sprays all the summer, and are still giving many useful ones. Can you give us any further particulars if the above hints do not help you?

Herbaceous border (*Spectenum Agendo*).—When you have removed the hedge and trenched the ground as deeply as the soil will permit, a mixture of lime and soot might be given at once low down, and a rather heavy dressing of Apterite or similar insect-destroying agent nearer the surface, forking the whole well into the soil. Organic manure of some kind should have been added; but if this is not procurable, work in at two different levels about 1 cwt. of fine bone-meal, and when this has lain together about a week fork over the whole of the border soil afresh and plant at once. If you employ about two bushels of lime and mix with three bushels of soil, this will not harm the occupants of the border in any way. You should obtain fresh lime and, placing it on the ground, cover the heap with soil. In an hour or two the lime will have slaked and, being mixed together, may be applied to the border forthwith and dug in. We should not employ the basic slag in such a case. If you were applying gas-lime to the border, it would be necessary to wait a while before planting, and it would be desirable also were you giving a very heavy dressing of lime alone. If you can give the time to fork the border over twice or thrice, the birds would assist you in clearing out the wireworm, and, of course, you would destroy all you came in contact with.

Galtonia and Fuchsias (*Broadgates*).—Bulbs of either the white-flowered Galtonia (Hyacinthus candicans) or Gladioli, or both, may be interspersed with your Fuchsias for another season.

Geraniums in winter (*J. V. M.*).—Geraniums cannot be kept in a satisfactory manner throughout the winter, even in a shed or room from which frost is excluded, unless they are potted, or what is equivalent thereto, the roots laid in boxes of soil. By this last method space is considerably economised, but as a set-off they need in the spring to be potted singly before the weather is warm enough for them to be placed out of doors.

Water Lilies in tubs (*Mrs. J. H. S.*).—These succeed excellently grown in this way when planted in rich turfy soil at the bottom of the tubs and of sufficient depth to cover the roots. Paraffin casks cut in two make excellent receptacles for the purpose. The inside of these should be fired to burn out the paraffin; but care must be taken not to burn the tub itself more than can be helped. If it is intended to sink the tubs in the ground, the outside had better be gas-tarred; but if they are to stand on a walk or terrace, they may be painted any colour desired. The important factor to provide for in the successful growth of these Lilies is, no doubt, a good supply of fresh, sweet and clean water. It must be kept so by frequent changing, or success is not possible. This is not a very arduous or formidable work. All that is needed is for some water to be taken out, say, every other day and the same quantity of fresh added, and occasionally to empty all the water and fill up with fresh. The same remarks apply to the large stone fountains. It will not do to depend on rain-water alone.

Roses and Violas (*Broadgates*).—The Violas are superficial-rooting subjects and do not affect the Roses to the same extent as plants whose roots are of a more descending nature; still, beds of Roses would be all the better without the Violas, as they could be hoed or top-dressed at any time. In the case of standards, however, the Violas serve to take off the otherwise bare appearance, which is not so noticeable when dwarfs are grown.

Plants for pergola (*J. V. M.*).—As you give quite a long list of climbing Roses, we conclude that you desire a collection of plants other than Roses for your pergola. The following are all well suited for the purpose: Actinidia chinensis, Akebia quinata, Aristolochia Sipho, Celastrus articulatus, Clematis Flammula, C. montana, C. m. rubens, C. Vitalba, garden varieties of Clematis, Vitis Coignetiæ, V. flexuosa, V. Thunbergii, V. armata Veitchii, Forsythia suspensa, Jasminum officinale, Laburnums with long racemes such as Vossii and Watererii, Lonicera japonica, L. Periclymenum, Wistaria sinensis, W. s. alba and W. multijuga.

Best three Gladioli for exhibition (*Cantab*).—A simple question most difficult to answer, as good varieties may be purchased at 6d. each and others up to 10s. 6d. If you really want high-priced sorts, we will give you the names of such; but with so great a range you should be a little more definite. Some good Grasses are Agrostis nebulosa, A. minutifolia, Briza maxima, B. media, B. gracilis, Eragrostis elegans, E. maxima and Pennisetum longistylum. These are annuals. Molinia cærulea variegata and Stipa pennata are perennials. Sow the first set thinly in pots in spring; the others may be grown in pots; but all should be plunged and well cared for to get good results. If you do not wish to exhibit them in pots as grown, the best results will accrue from planting in the open ground.

Violet plants gone wrong (*Miss M. C. E. W.*). We have grown this plant most successfully for many years, and we think we cannot do better than to shortly recapitulate our method of culture in the hope that its perusal may be of some service to you. In the first place, the strongest offsets of the old plants (in frames or in the open ground) are taken at the end of April and planted in an open position in the garden, exposed to the sun all day, with not too much shelter from any points of the compass. Those offsets only are chosen which have a considerable number of roots attached, the more the better. These are planted 2½ feet apart in the row, and the same distance separates the rows; thus the plants are 2½ feet apart each way, giving them abundance of room to grow during summer. The ground in which it is proposed to plant them should be trenched 2½ feet deep and a liberal quantity of leaf-mould added to the soil as the trenching proceeds. The summer culture consists in frequent hoeings to keep down weeds and to aërate the soil, occasional waterings in hot weather, and also occasional dustings of soot to keep away the greatest enemy of the Violet, namely, red spider. Mulch the surface of the soil over the roots of the plants with a layer, 2 inches deep, of rotten manure about the end of May, and let it remain on until the plants are taken up and placed in frames from the first to the third week in October. Constant attention is given to taking off the runners during the summer. This treatment has yielded year after year magnificent plants, many of them 2 feet through, which have given us a grand succession of bloom from October to the end of April. The causes of failure in your case, we think, lie in the fact of your having grown your plants in too sheltered a position and in having planted them too close together, resulting in too sappy and soft a growth, making the plants an easy prey to red spider, which, we think, was the ultimate cause of their collapse. The roots are healthy and in excellent condition. By giving the plants an occasional dusting of soot during the summer an attack of red spider is prevented and acts as a slight stimulant as well.

TREES AND SHRUBS.

Pleached walk (*E.*).—Prunus Pissardi would answer very well for your pleached walk. Plant the trees 12 feet apart, and remove the lower branches until the heads are the desired height from the ground. After this the treatment will consist of keeping the heads pruned into shape. You can either let the branches meet overhead and keep them cut back to form a series of arches, or you may have a continuous covering; the former would be the better method. The sides can also be trimmed to form arches if you like. All the necessary pruning should be done in summer, so that spurry growths well set with flower-buds are formed. The trees should be planted as soon as the leaves have fallen.

Unhealthy trees (*B. K. H.*).—In our opinion the ill-health of the Thuja and Wellingtonia is caused by the lack of nourishment. If so, the trees will be greatly benefited by a liberal top-dressing of loam, leaf-mould and decayed

manure. The leaf-mould and manure may be mixed together and applied first; then the loam on the top will prevent any loose particles blowing about and becoming unsightly. A good soaking of water should after that be given to the trees, as in all probability the soil around the roots is too dry, and the water will not only serve to moisten the soil, but will also carry down particles of nourishment from the top-dressing. This last should extend as far as the spread of the branches, and if the soil is very hard it may be lightly loosened with a fork before the top-dressing is applied.

Shrubs for Torquay (*Gardener*).—The following will be found to constitute a good selection of lovely flowering shrubs; colour and time of flowering are given. Spiræa arguta, white, 5 feet high, April, deciduous; Forsythia suspensa, 8 feet, April, yellow; Hamamelis mollis, 2 feet to 10 feet, January, yellow; Berberis stenophylla, evergreen, 6 feet to 8 feet, April, yellow; B. Darwinii, evergreen, 6 feet to 10 feet, April, orange; Pyrus floribunda atrosanguinea, 6 feet to 12 feet, May, deep pink; Prunus japonica flore-pleno, 5 feet, white, May; P. triloba flore-pleno, 4 feet to 6 feet, pink, March; Ribes sanguineum var. splendens, 4 feet to 5 feet, April, red; Philadelphus Lemoinei var. erectus, 3 feet to 4 feet, June, white; Genista ætnensis, 6 feet to 15 feet, July, yellow; Magnolia stellata, 3 feet to 10 feet, white, April; M. conspicua, 15 feet, white, March and April; M. Lennei, 6 feet to 12 feet, rosy purple, May; Lilacs Charles X., deep lilac, and alba grandiflora, white, May; Styrax japonica, 6 feet to 15 feet, July, white; Eucryphia pinnatifolia, evergreen or sub-evergreen, 4 feet to 15 feet, white, July; and Buddleia variabilis magnifica, 6 feet to 8 feet, lilac, summer and autumn. In addition, you can plant Rhododendrons, Azaleas, Arbutus, Heaths, Zenobia speciosa and Kalmia latifolia, if such things thrive in your district. For the choice evergreens you require the following are suitable: Castanopsis chrysophylla, Embothrium coccineum, Cupressus lawsoniana var. intertexta, Sciadopitys verticillata, Tsuga Sieboldii, Abies lowiana, Thuya gigantea zebrina or aurea, and Arbutus Andrachne. If you have room you will find that the following deciduous trees will do well in your climate: Davidia involucrata, Prunus Pseudo-cerasus Jas. H. Veitch, Magnolia macrophylla, M. Campbellii, Styrax Obassia, Paulownia imperialis and Catalpa bignonioides.

Larch shoot diseased (*D. H. B.*).—The Larch shoot is attacked by the Larch aphis (Chermes laricis). The females migrate to the Silver Fir in the autumn, and on that tree produce the curious cone-like galls which are so frequent and in which the insect passes the winter. These should be removed and destroyed as far as possible, so as to reduce the number of aphides ready to reinfect the Larch in the next spring. The small Larches may be sprayed with a nicotine wash. The attack not only results in the death of a large number of the leaves of the trees, but also lays the plant open to infection through the wounds by the Larch canker fungus.

ROSE GARDEN.

Roses for unheated greenhouse (*Martha*).—It is somewhat difficult to obtain Roses that bloom continuously and, at the same time, grow freely enough to quickly cover the span roof of a greenhouse. The best Roses for flowering most continuously are what are known as the non-climbing varieties, such as Marie van Houtte, Anna Olivier, Mme. Hoste, Lady Roberts, Mme. Abel Chatenay, Liberty, Joseph Hill and Laurent Carle. These would give you plenty of bloom in your cold greenhouse, and if you could grow them on a stage in large pots and train growths on to the roof they would cover the latter in about two years, providing it is not unusually lofty. We advise you to procure extra-sized pot-grown plants and plant these into large pots or small tubs. Should you prefer to plant in the ground, then you would need some of the climbing sorts, and a good selection would be Climbing Mrs. W. J. Grant, Climbing Caroline Testout, Climbing Liberty, Mme. Jules Gravereaux, Climbing Frau Karl Druschki, Bouquet d'Or, François Crousse and Gustave Regis.

Rose Marechal Niel not flowering (*D. A. J.*).—We advise you to transplant the plant to a border at the foot of a south or west wall. This superb Rose frequently refuses to ripen its wood when growing luxuriantly in the open garden, but against a wall or close fence the necessary ripening is assisted. If you decide to do as we suggest, we advise you to pinch out the points of the long growths at once. This would the better prepare the plant for removal. Provide a good deeply-dug hole for the roots, but see that the latter are not put beneath the surface soil more than 6 inches. By deeply digging into a position at once and adding manure and bone-meal liberally, the soil will settle down by the end of October, when you could plant at once.

Roses to form large bushes in Torquay (*Gardener*).—Roses which are expected to grow into large bushes such as you desire are certainly more satisfactory when grown on their own roots than when grafted, for when a group becomes dense it is almost impossible to keep suckers cut out, and if they once attain the upper hand the Rose quickly deteriorates. For general purposes you will find the rambling kinds of Rose preferable to the Tea, Hybrid Tea, and Hybrid Perpetual varieties that you name, for many of them deteriorate and produce very inferior blooms if not properly pruned and cultivated each year. In your climate it is quite probable that Gloire de Dijon will succeed as a large bush, especially if you cut the old wood out occasionally in spring. The young wood, however, must be left untouched. Good varieties for growing into large bushes are Crimson Rambler, Alberic Barbier, Dorothy Perkins, Helene, Elise Robichon, Electra, Tea Rambler, Una and Hiawatha. Such sorts as Alberic Barbier, Dorothy Perkins and Hiawatha should have a few rough stakes provided to give them a start. You may also grow the various varieties of Rosa rugosa in the manner you wish. Two very good semi-double, large-flowered varieties are Mrs. Anthony Waterer and Blanc de Coubert; the former has red flowers, the latter white. Fellenberg is a free-flowering Rose which forms a large bush; it produces clusters of red flowers from May until winter sets in. It is possible that in the mild climate of Torquay some of the varieties you mention may succeed, but it is a matter for experiment. Mme. Abel Chatenay, Frau Karl Druschki and Mme. Jules Grolez would be worth trying.

Thrips damaging Roses (*C. H. M.*).—These troublesome little insects spoil the appearance of Rose foliage, and this year they have been very prevalent, especially where the plants are in dry positions. Copious syringings with cold water will usually check the pest, but when it becomes very bad, syringe with Tobacco water made as follows: Tobacco, ½lb.; soft soap, 1lb.; soft water, twelve gallons. Steep the Tobacco in water for some days and then allow it to simmer over a fire for an hour; pour off the liquid and well smash the leaves. Proceed again as before and add the second extract to the first, when all may be mixed with the dissolved soft soap. If you syringe early next season, we think you will not be troubled with the thrips. A dressing of soot to the surface soil would be advantageous. The Carnation layers are not likely to be affected now that the dry weather has gone. In their case soot applied to the soil would also be an advantage.

THE GREENHOUSE.

Streptocarpus after flowering (*Constant Reader*).—After the flowering season of the Streptocarpus is past less water should be given, and throughout the winter the plants must be kept moderately dry, but not dried off entirely, as they do not form tubers like many of their allies. They may be safely wintered in a structure with a minimum temperature of 45°, rising, of course, 10° or so during the day. About February the plants should be shaken out of their old soil and repotted in a mixture of loam, leaf-mould and sand. If put in a somewhat warmer structure they will soon start into growth. To assist this they must be watered moderately and sprinkled overhead in warm weather. In this way the same plants can be grown year after year.

Ivy-leaved Pelargoniums during the winter (*Esther*).—Unless you can put your Ivy-leaved Pelargoniums in a structure where there is at least a moderate amount of light and, where at the same time, they will be quite safe from frost, we fear that there is not much chance of their passing through the winter in a satisfactory manner. With regard to your suggestion, there are sheds and sheds; hence it is quite impossible for us to know what your idea is. Whatever the structure is, frost must be excluded therefrom. The soil during the winter should be kept fairly dry. The Agapanthus, too, must be kept free from frost, but in its case light is not so essential as for the Pelargonium.

Climbers for greenhouse (*An Old Reader*).—Many conservatories and greenhouses have a border around the outside wall in which to plant climbers, and as the pipes are in most cases situated there, the border is then, of course, under the hot-water pipes. To prepare a border for climbing plants, the soil should be taken out to a depth of 2 feet, and 6 inches of brick rubble placed in the bottom for drainage; then fill up with good soil. Good climbers for the purpose are: Hibbertia dentata, yellow; Tacsonia Van Volxemii, scarlet; Clematis indivisa, white; and Plumbago capensis, blue. Climbing Roses that would succeed in the conservatory are: Climbing Niphetos, white; François Crousse, pale scarlet crimson; Mme. Hector Leuillot, yellow, shaded carmine; and Mme. Moreau, coppery yellow. The climbing Rose whose white flowers are borne in clusters is most probably Aimée Vibert. The latter half of October is, unless special conditions prevail, early enough to transplant Roses. W. A. Richardson will do well as a climber indoors.

KITCHEN GARDEN.

Pests in the vegetable garden (*Hopeful*).—Judging from your description of the great damage wrought to your vegetables, we were inclined to conclude that the enemy must have been the Cabbage caterpillar (Pieris brassicæ), the most destructive of all pests among the Cabbage tribe in summer. But later on you say that there was no trace of any kind of fly, slugs or snails to be seen. Had the enemy been the caterpillar spoken of, you could not have failed to have found this out. The worst enemies of the Cabbage tribe in a young state are, no doubt, the slug and the snail. The best way to protect Cabbages from these is to scatter quicklime over the beds or rows as soon as the seeds are sown, and again soon after the young plants appear above ground, using this time a little soot with the lime. This application, we have no doubt, will also have the effect of keeping your enemy at bay, whatever it may be. Earwigs are very destructive to ripening fruit on walls, especially Peaches and Nectarines, but we have had no experience of any serious losses from their depredations on vegetables. As a precaution against similar attacks next year, we advise you to trench your garden to the depth of 2½ feet, adding good rotten manure at the rate of a ton to every 40 square yards, and also 1cwt. of quicklime, spreading the latter over the soil as the trenching proceeds. In addition to this add a patent preparation named Kilogrub to the top spit of the soil only. This is an excellent article for ridding the soil of all these pests, and may be had of all seed merchants advertising with us, with directions how to use.

Cauliflowers and Cabbages growing tall (*Steeliness, Sheffield*).—Your plants have scarcely had time to show hearts or buttons yet, having only been planted in July. The position in your garden, being shady, is against the plants doing so well as they would have done had they had the benefit of sunshine most of the day. Next year, if you try to grow autumn and winter vegetables again, sow the seed early in April and plant out the plants in the middle of June. This will give them a longer season to grow, and you will find that the result will be better.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

EVERGREEN SHRUBS FOR WINTER BEAUTY.

How to Grow Them.

DURING the winter, when there are few, if any, flowers in the garden, the value of evergreen shrubs can be more fully appreciated. Among the numerous kinds available there exists the utmost diversity in regard to habit of growth and colour, size and shape of the foliage, while, as some compensation for the lack of flowers, the various berry-bearing shrubs are at their best and give a welcome touch of colour to the garden.

When making a selection of suitable kinds, it will be necessary to take into consideration the questions of position, soil and the amount of space available. Some of the taller-growing shrubs reach almost tree-like proportions after a few years' growth, rendering them unsuitable for small gardens; others, again, not being quite hardy, require planting in the most sheltered positions. Some skill and cultural knowledge are also requisite in grouping the various species employed in a natural and informal way and in selecting positions best suited to their requirements.

One of the most important points is to allow ample space between the shrubs, so that as growth progresses they may assume their natural shape and be seen to the best advantage without undue thinning or cutting back. Many of the comparatively dwarf shrubs look best when planted in large beds, and in this case a bolder and better effect is produced if each bed is planted with a single kind, but not necessarily confined to one variety. Others are most effective when disposed in thinly planted groups, while many are admirably adapted for forming single specimens on lawns or in other suitable positions. Contrast may be afforded by the use of shrubs with variegated foliage, and in the case of those of somewhat heavy appearance by planting others of lighter and more graceful growth at a little distance.

The best time for planting is early autumn (not later than the end of October), as the roots are then enabled to get well hold of the soil before the winter; the early part of April is also a good time and, in some cases, preferable to autumn. The majority of evergreen shrubs are very accommodating in their requirements, and will flourish in any good loamy soil of fair depth; nevertheless, it is advisable to give them a good start by taking out holes 2 feet deep and 4 feet or 5 feet wide, and, if the soil be of poor quality, by adding some decomposed manure before replacing it. In planting, care should be taken to spread out the roots as much as possible and not to cover the stems too deeply. After planting a good soaking of water should be given, and in the case of spring-planted shrubs an occasional heavy watering should be given through the following summer. In some cases it will be necessary to secure the shrubs to a stake till they are established, to prevent swaying by the wind.

Of the selection of evergreen shrubs here given the larger number are perfectly hardy; the few which are not quite hardy, except in the extreme South and West, are specified, and these, though liable to be disfigured to some extent in severe weather, are rarely killed outright even in the hardest winter. The most popular and, perhaps, the most beautiful of all,

The Holly, is suitable for all positions, but is seen to the best advantage as single specimens or in thin groups where its graceful pyramidal outline can be viewed from all points. Planted in deep loamy soil, it requires very little attention beyond the occasional slight pruning necessary to keep the plants in shape; in poor, gravelly or sandy soil an annual mulching of manure in spring will be of great benefit. The Holly is propagated by seeds, layers or cuttings, but garden varieties will not come true from seeds, and must be increased by either of the two last methods or by grafting on the common kind. Of the green-leaved forms the best are the common Holly (Ilex Aquifolium) and its varieties platyphylla, Hodginsii and Shepherdii, the Camellia-leaved Holly (I. camelliæfolia), and the Broad-leaved Holly (I. latifolia). The latter is not quite hardy and requires a sheltered position. Of those with variegated foliage, good varieties are Gold Queen, Silver Queen, Hodginsii aurea, compacta aurea and Handsworth New Silver.

Euonymus.—These shrubs thrive in almost any soil, and are especially useful in gardens near the sea. Although not quite hardy, it is rarely that they are seriously injured by frost. E. japonicus is well known, and its gold and silver leaved varieties form an effective contrast with other shrubs. E. japonicus latifolius has broader leaves and is of taller growth, while its effectiveness is increased by the deep red seed-pods and bright orange fruits borne in autumn and winter. The Euonymus is easily increased from cuttings of the young wood.

Aucuba.—Distinct shrubs with large green or mottled leaves and bright red berries, which are borne on the female plants. One or two male plants should, therefore, be planted in each group to ensure a good show of these. A sheltered situation should be given, as the young growth is liable to be crippled by frost.

Laurel (Cerasus Laurocerasus).—This is too well known to need description, and, although useful in certain positions, is often too freely used, to the exclusion of better shrubs. The Portugal Laurel (C. lusitanica) has smaller leaves and is of rounded, symmetrical growth, making a fine lawn shrub in sheltered positions. Increased by cuttings.

Laurustinus.—One of the few winter-flowering shrubs, this is very effective either in the shrubbery or as a single specimen. It succeeds best in light, warm soil, and, not being quite hardy, requires a little shelter in cold districts. Cuttings of the young wood root readily in sandy soil.

The Strawberry Tree (Arbutus Unedo).—This is one of the most effective of evergreen shrubs and very beautiful when covered with its Strawberry-like fruits in early winter. I think it is hardier than is generally supposed; here, in the coldest part of Kent, there are some fine specimens 15 feet to 20 feet in height growing in exposed positions. The other species are less hardy, and rarely perfect their fruit in this country. The Arbutus succeeds in peat or light, loamy soil, and is increased by means of seeds sown in spring.

The Fire Thorn (Cratægus Pyracantha).—A handsome shrub with small, pale green leaves and a profusion of orange scarlet fruits in autumn and winter. It is quite hardy and will grow well in any fairly good loamy soil. Propagated from seeds sown in spring.

Berberis.—The most effective of the evergreen species are B. stenophylla, B. Darwinii and B. Aquifolium, the leaves of the latter changing to a bronzy purple colour in autumn. The Barberries succeed best in soil made up of loam and leaf-mould, and are increased by means of seeds or by cuttings of the ripened wood, which may be rooted in a cold frame in autumn.

Rhododendron.—The various species are very distinct in habit of growth and in the character of the foliage, and good use can be made of them for winter effect, although the quality of the flowers is usually the first consideration in making a selection. The best growth is made in a deep, sandy peat soil, but they also do well in light loam if free from lime. In addition to the varieties of R. ponticum, R. catawbiense, R. fulgens, R. Fortunei, R. ferrugineum and R. caucasicum should be grown. The Rhododendron is increased by layering or by grafting on R. ponticum or other species, the former method being preferable.

Conifers.—Among the slow-growing or less vigorous kinds will be found many suitable for either large or small gardens, and their shapely growth and distinct appearance make them of great value for winter effect, either as single specimens or planted very thinly in groups. They require a deep and rather moist soil, and a somewhat sheltered position where they will not be disfigured by winter gales. Among the best kinds for gardens are the Retinosporas, especially such as R. filifera, R. obtusa, R. plumosa and its golden variety; Cryptomeria elegans, Abies brachyphylla, Cupressus lawsoniana and its many varieties, and Thuja occidentalis.

Bamboo.—Owing to their light and graceful appearance these plants are useful for contrasting with other shrubs. They should be planted in rich, moist soil, and are most effective on the margins of ponds or streams, where their roots can have access to moisture. The best time for planting is in late spring, and a good mulching of manure should be given after planting and occasionally when established, this serving as a protection in winter as well as affording nourishment to the roots. Some of the best-known species are Arundinaria nobilis, A. japonica, A. Veitchii, Bambusa palmata, Phyllostachys aurea and P. nigra.

Yucca.—These are quite distinct from other shrubs in appearance, and are very effective when planted in groups on the lawn or associated with Bamboos. They like a deep but rather light, rich soil, and, being quite hardy, will succeed in any position. The two most useful species are Y. gloriosa, with erect, sharp-pointed leaves, and Y. recurvifolia, in which the leaves are longer and much recurved, rendering it less formal in appearance.

Erith. C. W. CAULFIELD.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

November 2.—Ventnor Chrysanthemum Show (two days); Brighton and Sussex Horticultural Society's Show (two days); Plymouth Chrysanthemum Show.

November 3.—National Chrysanthemum Society's Show (three days); Bath Chrysanthemum Show (two days); Chertsey and Ottershaw Autumn Show.

November 4.—Torquay Chrysanthemum Show.

November 5.—Hinckley Chrysanthemum Society's Show (two days); Eccles and Pendleton Chrysanthemum Show (two days); Windsor and Eton Chrysanthemum Show.

November 6.—French Horticultural Society of London Meeting.

Miss Willmott's garden.—Miss E. A. Willmott has given Mr. Quaritch permission to publish a selection of forty-one collotype views of her well-known and interesting garden at Great Warley. This is the first time that any photographs of the garden have been published, and it is thought that they will prove of exceptional interest to all horticulturists. The work will form one volume folio, 16 inches by 12 inches, and will be issued early in December.

Edinburgh Royal Botanic Gardens.—The series of extensions and improvements which have been in progress for some years in the Royal Botanic Gardens, Edinburgh, is about to be continued by the erection of important new buildings, for which plans have just been passed. These are for laboratory purposes, and will be built at the old entrance to the gardens in Inverleith Row. Further additions are contemplated, but the plans provide for what is a most important addition to the present facilities for the study of botany and for experimental work. The buildings will consist of two floors, on the ground floor there being a classroom 61 feet long, a water culture room, a dark culture room, two photographic dark-rooms, a room for pathology and apparatus, and a workshop. On the first floor will be provided accommodation for a large mycological laboratory, a room for photomicrography, a studio, and rooms for research and other work. The most approved principles have been followed in the constructive work of the buildings, and the whole will form a most important factor in the increasing work done at these gardens, which are so well cared for under the guidance of Professor Bayley Balfour.

A school of horticulture.—In view of the wide interest of the general public in the Royal Horticultural Society's school of horticulture at Wisley, near Weybridge, where both the science and practice of gardening are taught to thirty young men almost entirely at the society's expense, the following list of successes gained this summer by the second year students will be of interest to your readers: Diploma examination (in order of merit)—A. W. Simmonds (diploma and demonstratorship of £40 for one year), W. G. Kent (diploma and prize), J. Ridley (diploma and prize), H. W. Abbiss (diploma and prize), G. A. S. Brookes (diploma), S. B. Gorringe (diploma), H. L. Robson (diploma) and N. A. Phillips (diploma). Nicholson Prize for observation—A. W. Simmonds. General examination—J. W. McCaig (scholarship of £25 per annum for two years, silver-gilt medal, certificate and prize), W. Miles (certificate and prize), W. G. Kent (certificate and prize), H. L. Robson (certificate and prize), A. W. Simmonds (certificate and prize), and twelve other certificates. In the unavoidable absence of the president, these awards were distributed a few days ago by Harry J. Veitch, Esq., V.M.H., who was accompanied by other members of the council, together with the Right Hon. Arthur H. Dyke Acland, ex-Minister of Education, who gave a short address. Mr. James Hudson, V.M.H., also gave advice arising from a lifelong experience as a practical and scientific gardener. It is also worthy of note that Mr. Seaton, after a three years' course, was this summer appointed by the British Columbia Government to superintend one of its public parks at a commencing salary of £200 a year.—W. WILKS, *Secretary, Royal Horticultural Society.*

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

New early Chrysanthemums in the North.—Among the new early Chrysanthemums which have done well in Scotland this season are L'Aube, one of M. Nonin's; it is of a remarkably fine shade of rosy mauve, and is both growing and flowering exceedingly well. Its height here is rather over 2 feet. L'Oise, another novelty of French origin, reminds one of Orange Masse, but is of a deeper shade; it is a really fine flower. La Somme has been very early, and has given many flowers of a colour catalogued as a rosy mauve, but which may, perhaps, be best called a mixture of mauve and rose. As a delicately tinted flower, La Tamise should make its way into many gardens. It is of a delicate blush white, and grows and flowers well with us in the North. La Tibre, another of the same set, is of a mahogany or chestnut red with gold reverse. It does well here. Tottie, a reddish orange flower, is a great acquisition, while Connie is of rather a pleasing shade of primrose; its height of 2½ feet is not excessive. Lizzie M'Neil is earning golden opinions, and is one of the finest of the season; its blooms are a charming salmon and heliotrope. Sybil Quint is of a good yellow, and is so fine that it will probably take the place of most of the flowers of its colour. Touraine, one of last year's introductions of M. Nonin, is of a pleasing rosy white in the open, and is after the style of Hector. La Neva, this year's introduction from M. Nonin, blooms freely and is likely to be a favourite with market growers. The flowers, which are a good white, are of high merit. From the same raiser we have L'Aisne, a fine plant which blooms well, but with us is rather tall, reaching about 4 feet in height. It is rosy mauve with a silvery reverse. Margaret Juando is a good rain-resister—a merit indeed in such a season—and has fine solid blooms of a good buff, shaded with salmon and yellow.—S. ARNOTT, *N.B.*

Little-used bulbs.—With regard to Mr. Jacobs' very interesting note about little-used bulbs, I should like to ask him or some other successful grower of Muscari plumosum whether any particular care is to be observed in growing these in pots? I have planted them (in the garden) over and over again, and they never even came up. I was intending to try them in grass, as someone mentioned not long ago (I think in THE GARDEN) that they did better in grass than in the border. Now I shall try them in pots, but I should like to know of possible causes of failure.—A. M., *Skelwith.* [There is no difficulty whatever in growing Feather Hyacinths (Muscari plumosum) in pots or round pans or boxes. Plant them in any good light garden soil, covering the tops of the bulbs with half an inch of the same. Then put the pots or boxes in a cold frame and protect from

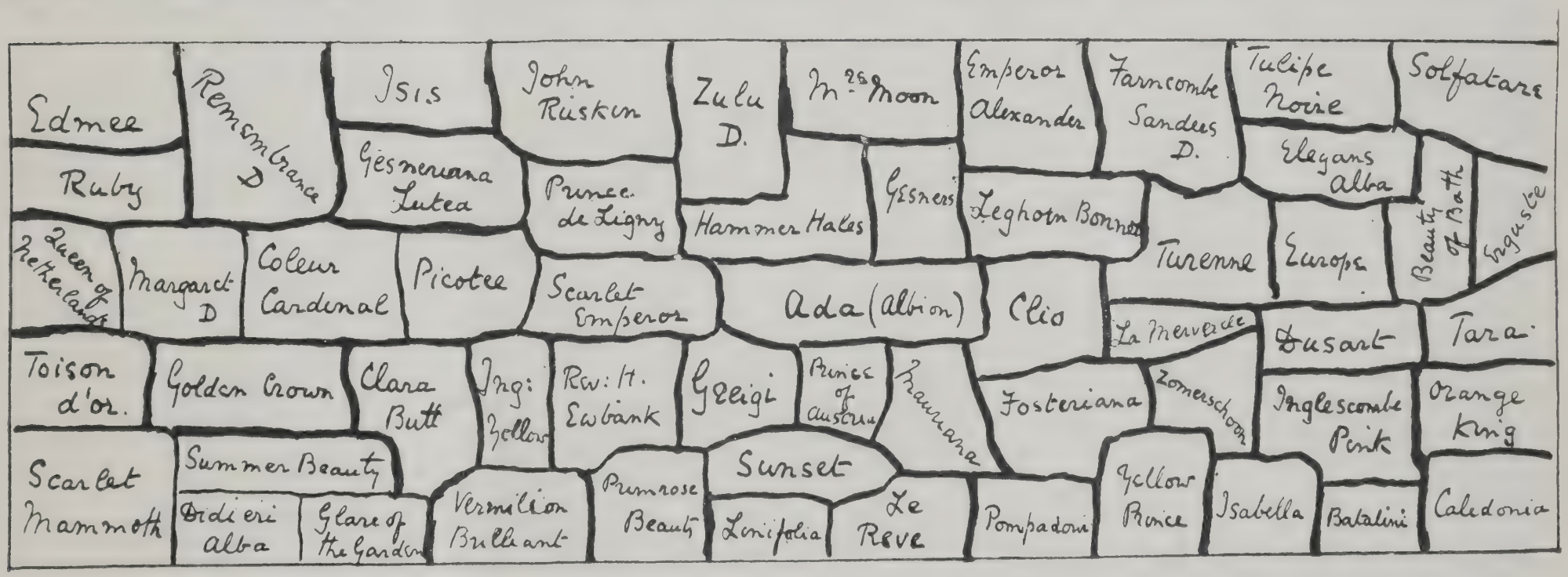
frost. It is a long time before any top growth appears, and then it is a long while before the little hard button at the bottom of the leaves begins to elongate and, finally but slowly, develop into the perfect inflorescence. They may be introduced in batches into a temperature of about 50° in February and March and brought on slowly. There is very little chance of failure if ordinary cultural details are attended to. The main thing to remember in growing these Feather Hyacinths is that they are slow movers.—J. Jacob.]

Roses at Tunbridge Wells.—In my garden Chateau de Clos Vougeot is very dwarf and has been quite leafless since the summer flowers, but it is now beginning to shoot. One of my flowers was, I think, better than that figured in Pernet-Ducher's catalogue—quite as large. If you will compare it with Eugène Fürst you will find very little difference in colour or general appearance. Marquise de Sinety is a good Rose, but my tree has borne no such magnificent flowers as those shown in the coloured plate in your Rose Number. Perhaps it was drawn as raised under glass. With me (out of doors) it has been far from superior to Instituteur Sirdey, the finest orange Rose I have ever seen. I wish you would give a coloured illustration of it. You mildew-proof, and "V. M." for mildews badly. Could you suggest it? Could you give us a list of mildew-proof Roses? It would be a great help when buying. With many thanks for much that I have learnt from your admirable paper,—W. J. Chapman, *Tunbridge Wells.*

The modern Daffodil.—Many exhibitors of Daffodils, especially seedlings, are inclined to show flowers which, however beautiful when set up at a show, would have little or no value in the garden or for market. These so-called "show" or "florist's" flowers are often cut in the bud state and opened in heat, in order to develop qualities which they would probably lack if allowed to bloom naturally in the open air. This practice is known as "boiling out," and some varieties, such as the Poeticus, are far superior when so treated; but since it tends to deceive people as to the true merits of a variety, especially if new, for this reason it should be discouraged, or, at any rate, I would have all flowers so treated and all flowers from bulbs grown under glass marked in some way so that everyone could see that they had been so treated or grown. Who would recognise Victoria grown under glass as the same as Victoria grown in the open? and grandis, too, what a different flower it gives under glass! So it is with many other varieties, but these two are perhaps the survive when the so-called "florist's flowers" are forgotten.—W. A. Watts.

A TULIP BORDER.

THERE are many ways in which a collection of Tulips may be grown. They may be spread here and there all over the garden in patches of varying size; they may be planted in rows in beds, like in a nursery garden; there may be a Tulip garden with walks paved with large, flat stone slabs and trimly, low-kept Box edging; or, as illustrated below, if a wide border is vacant, it may be filled with different kinds of Tulips grouped in irregular patches so as to give a succession of bloom. If this is well done it will form a beautiful and highly interesting feature for some weeks. The particular arrangement is a sort of ideal one that I would like myself, but it must only be treated as a suggestion. The varieties are gathered from so many lists that few are likely to have them all. The leaves of the Tulips will form their own green carpet, and if the stems are cut off just above the top leaf when the flowers fade the border will always have a neat and tidy look. The spaces given are only approximate, as it is



A BORDER OF TULIPS ARRANGED FOR COLOUR EFFECT.

mention Mr. Bennett's The Meteor; I had it in my Rose-bed, but not a bud would open, so I moved it into the best position in my kitchen garden. There it has grown vigorously and given plenty of buds, but not one has opened. I find the same with Mme. Joseph Godier—abundance of buds, but not a single flower in two years; but Devoniensis, Ethel Brownlow, Duchess of Portland and Adam have done very well by the change to the kitchen garden. This seems interesting as showing what a difference soil and situation in the same garden will make. Some long time back you gave me a list of Roses, and I got all but one, which I could not find in any catalogue. One was Prefet Monteil. It is curious that the first flowers all come divided, but not the second lot. I saw in a show here a very fine flower of Oberhofgärtner Terks. I got the Rose. It mildews very much and is impatient of wet, and only gave a few very poor flowers. What you wrote about Mildred Grant I found quite true; the first flower grand and all afterwards wretchedly poor. Since I wrote in July, Farbenkönigin has shown itself one of the best flowers in the garden. I understand that our National Rose Society is bringing out a new catalogue. I do wish that it would notify whether a Rose mildews or not. It might indicate it by letters, say, "M." at the end of the description stands for mildew, "N. M." for most striking examples. There is another far more serious matter I would like to draw attention to; that is, the getting up of flowers for show—I mean the use of paper collars or little cardboard discs with holes in the centre, which are slipped over the stem behind the perianth segments in order to keep these in position and prevent their natural reflexing, and the "thumbing" of a cup to make it appear a flat-cupped or Engleheartii type of flower. These practices are dishonest, and we should do all we can to stop them, or the Daffodil will soon begin to lose the great popularity it has gained as a beautiful and useful flower. Another important point is the question of stalks. One sees lovely flowers shown with little more than their head and shoulders, so to speak, sticking out of a tuft of moss. This may mean that the flower has no stem to cut, or that the exhibitor has not thought fit to cut it at its full length. A long, firm stem is one of the most valuable attributes of the Daffodil, and it is highly important that judges should take account of it. I should like to see a rule in Daffodil societies' schedules that every flower be shown with its full length of stem cut at the ground level, and I would suggest that points be given for good stems. What we want are flowers for the garden and for the market, flowers for which a coster would find a ready sale; these will impossible to exactly hit off the room that should be allowed for small kinds, such as linifolia, and for large ones, like Tulipe Noire, in a plan on paper. These details must be left to the common-sense of the planter. I append some alternatives for some of the more expensive or uncommon varieties.

For	John Ruskin	say Fairy Queen
,,	Zulu	,, The Sultan
,,	Emperor Alexander	,, Dainty Maid
,,	Tulipe Noire	,, Leonardo da Vinci
,,	Beauty of Bath	,, Doris
,,	Turenne	,, Orange Beauty
,,	Zomerschoon	,, Goldflake
,,	Clio	,, Bronze Queen
,,	Pompadour	,, Glaucopis (Wallace)
,,	Inglescombe Yellow	,, Parisian Yellow
,,	Scarlet Emperor	,, maculata The Moor
,,	Ada	,, White Queen (Darwin)
,,	Hammer Hales	,, gesneriana aurantiaca
,,	Glare of the Garden	,, macrospeila
,,	Toison d'Or	,, Jaune d'œuf
,,	Tara	,, Fontenelle (Darwin)
,,	Orange King	,, retroflexa
,,	Solfatare	,, flava

Others will doubtless suggest themselves, and a great help will be found in the excellent arrangement that we find in many catalogues of stating not only the colour of the flower but the height of the plant. Joseph Jacob.

THE ROSE GARDEN.

NOTES ON NEWER ROSES.—VI.

(*Continued from page 493.*)

HYBRID TEAS.

FRIEDRICHSRUH (J. C. Schmidt, 1907).—By some nurserymen I see this Rose is called a Tea, but I think it is a Hybrid Tea; the colour is best described as blood red; the flowers are medium in size with a fair number of petals, and it is sweet-scented and a moderately good grower. It is possible that there may be two Roses of the same name, as I see in a catalogue just to hand Turke is given as the raiser of a Rose Friedrichsruh, a Tea that was awarded a gold medal at Dusseldorf. This double naming is likely to lead to confusion. I admit it is difficult to see how to avoid it short of registration. There are two Roses, quite distinct, put in commerce this year under the name of Entente Cordiale, one a yellow Hybrid Tea of Pernet-Ducher's, raised from a cross of Mme. Abel Chatenay with Kaiserin Augusta Victoria; the other, sent out by Guillot, I think, a little previously, belongs apparently to the new class (raised directly or indirectly from Rosa lutea) and known as Pernetiana, and to which Lyon Rose and Mme. Melanie Soupert belong; and apparently there are also two Friedrichsruhs.

Grace Molyneux (Alex. Dickson and Sons, 1908).—I have, naturally, had a good many enquiries about this Rose. I first saw it about eight years ago in the nurseries at Newtownards, and I picked it out in company with the Rose now named Molly Sharman Crawford from all the seedlings—and there were not a few—that I saw on that visit; the growth and perfume and general decorative qualities of the Rose appealed to me quite as much as the flower. The following year Messrs. Dickson sent me a couple of plants that are still in my garden here, so I have had plenty of opportunities of seeing the Rose. It is not large, but only if given high culture and severely disbudded will it be of any service to the exhibitor; in fact, at no time should more than one flower be allowed to come on one shoot. I know no better grower in the whole family, and its flowers can easily be cut on 18-inch stems; in fact, are always so cut here. At its best it is very beautiful, but it must be treated well to get size into the blooms. At the time of writing (mid-September) it is full of flowers and will continue as long as any Roses are left; in fact, last year Betty and Grace Molyneux were the only Roses worthy of the name on Christmas Day (the previous season we could have cut 100 blooms, and did cut between 60 and 70 on December 25). The foliage is good and altogether it makes a fine decorative plant; about the best bedder of its colour, which is saying a good deal when one remembers that Antoine Rivoire would come in this category. It has slightly more colour, perhaps, than that Rose and is more pointed. It has been given the Royal Horticultural Society's award of merit and the National Rose Society's card of commendation, and many a worse Rose has had the gold medal. It is not, I should say, an exhibitor's Rose, though I have frequently exhibited it, but it is one of those Roses that occasionally will give a bloom quite up to exhibition form, and so is doubly useful.

Grüss an Sangerhausen (Dr. Müller, 1905).—This is a good bedding Rose in its shade of colour; last year it approached at times a brilliant scarlet, but this year the weather has taken the brilliancy quite out of the flowers, which have come a dull red, with a deeper shade in the centre. It is a good grower and is perfumed, and I think is worthy of a place in our list of Roses. We have had many good Roses from this amateur, Conrad F. Meyer, to mention only one.

General McArthur (E. G. Hill and Co., 1905).—The raiser, who was over here in 1908, told me at the National Rose Society's show at Regent's Park that he thought this was a better Rose than Richmond, and for garden decoration I am sure that it is. It will not give us as many fine flowers in an early cool season as that variety, but it is a brighter crimson and a more vigorous grower, with a stronger scent. Altogether I can recommend it to anyone who wants a good crimson bedder. Its freedom of flower places it in front of Hugh Dickson as a bedding variety.

H. Armytage Moore (Hugh Dickson, 1907).—This is a beautiful decorative variety that will occasionally, perhaps, give us a flower up to exhibition standard—a delicate shade of silvery pink on the inside of the petal, with a deeper, almost rose, pink outside. Good distinct foliage. There are, I know, many Roses that can only be described as a shade of pink, yet they are each distinct enough to warrant their cultivation. This Rose has a fine long-pointed bud that helps to recommend it.

Hector Mackenzie (Guillot, 1908).—A dark shade of rosy pink that in the older flowers runs into a light crimson. It seems free-flowering and is fragrant, two good points in its favour; but I have not seen enough of it to be in a position to say more.

Herrero Trotha (Lambert, 1906).—I am not particularly struck with this Rose; the colour is best described as rosy salmon, but there is a maroon tint in it that is not pleasing. Good-shaped bud and fragrant.

Instituteur Sirdey (Pernet-Ducher, 1906).—One of the many good yellows from this firm; it was one of the best of its colour until Marquise de Sinety and Duchess of Wellington appeared. It is not as deep as either of these Roses, but may fairly be described as golden yellow. It has been good this season, but in a hot summer will require shading.

Irish Elegance (Alex. Dickson and Sons, 1905). Every garden should contain a plant of this Rose, even if its owner is not an admirer of single Roses, as it is the most beautiful of them all, and if a Rose can be said to be "charming," Irish Elegance might lay claim to the title.

Italia.—I do not know the raiser of this Rose; it is a big, bold flower, carmine in colour, with apparently Bourbon blood in it. I remember Messrs. Paul and Son had some fine pot plants at the Temple, but I have seen very little of it, and it has not yet been figured in many of the catalogues. I think it is a cross between La France de '89 and one of the Bourbons; which one I cannot say. I only mention it here as a correspondent, whose letter bore no address, wrote and asked me my opinion of it and what its history was.

Jean Noté (Pernet-Ducher, 1908).—This Rose has been a disappointment with me. It was strongly recommended as something very much out of the ordinary, of an altogether unique colour; but beyond a deep yellow pretty in the bud, it opens out into a flat, shapeless flower with nothing to recommend it. Of course, I have only grown it this year. My plants were "wee bits of things." Perhaps it is hardly fair to expect very much from them, so I will not condemn the Rose altogether; but I do not think it will ever be much good.

Jeanne Barioz (Guillot, 1907).—This is a good-sized flower, very pale salmon, with a deeper centre. Moderately vigorous is the most that can be said for its habit of growth. Not a bad Rose, but no good, I think, to the exhibitor. It is likely to be confused with

Jeanne Buatois (Buatois, 1902).—An older flower, but only just coming into cultivation as far as the names go; but the flowers are quite unlike Jeanne Barioz, being an exhibition Rose pure and simple, producing a large flower of the Bessie Brown type and colour, and like that Rose, too, in tissue of petal, and therefore impatient of wet, but shaded and protected a Rose that is well worth trying. I have had some very big flowers, and it has been exhibited, too, well this season on more than one occasion by Messrs. Frank Cant and Co. of Colchester, who had a flower at Purley show that might have had the medal for the best Hybrid Tea, only the judges preferred, as most judges do, a good dark Hybrid Perpetual.

Purley. HERBERT E. MOLYNEUX.

(To be continued.)

IRISES EDGING A PAVED PATHWAY. (*See page 530.*)

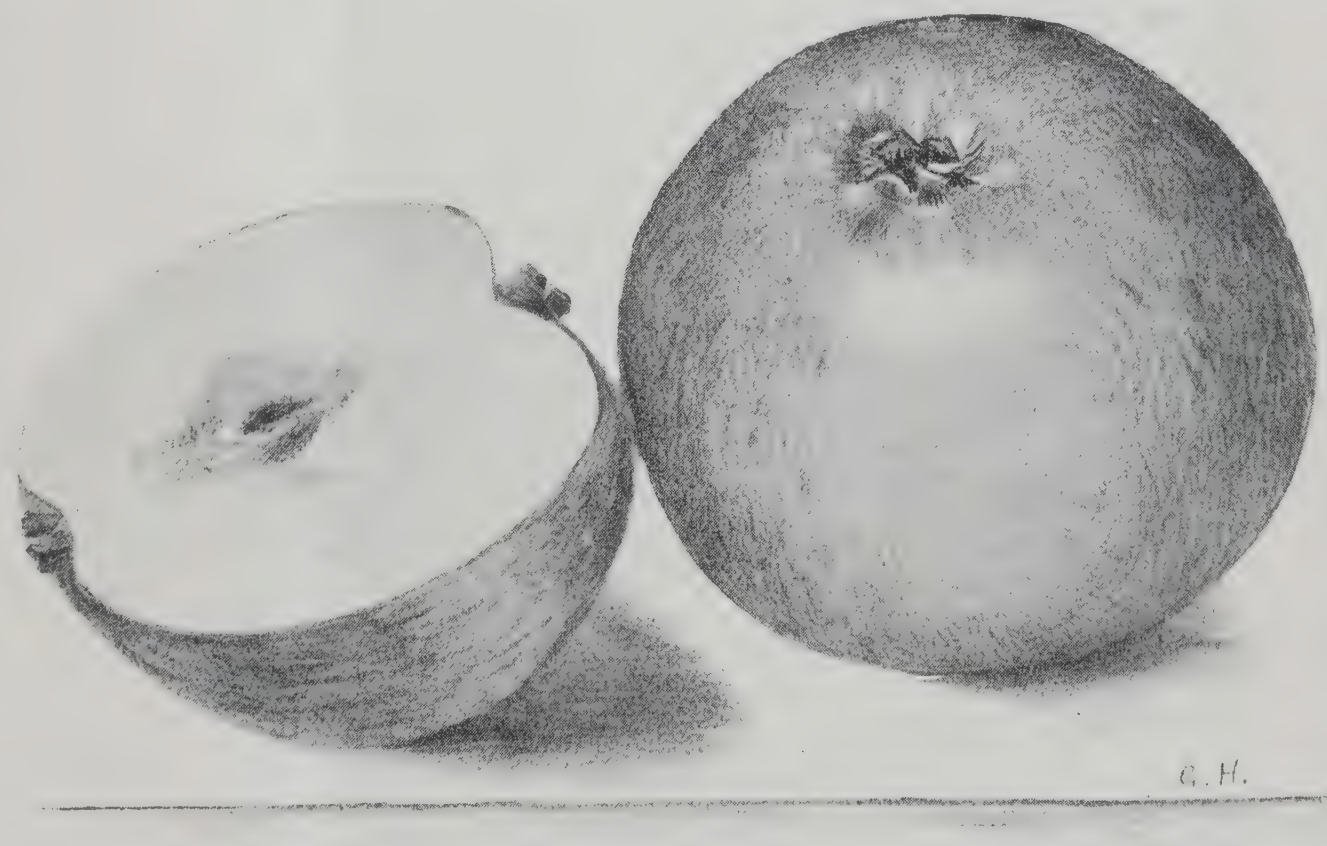
BRITISH-RAISED ROSES.

(*Continued from page 516.*)

BELOW we give a continuation of the list of British-raised Roses, which was commenced in our Rose Number, published on the 9th inst.:

Mrs. L. Dewhurst, Wich., Pearson.
Mrs. Laxton, H.P., Laxton.
Mrs. Longworth, H.T., Prince.
Mrs. Maynon Sinton, H.T., McGredy.
Mrs. Myles Kennedy, T., A. Dickson and Sons.

Mrs. O. G. Orpen, Single, Orpen.
Mrs. P. H. Coats, H.T., H. Dickson.
Mrs. Paul, Bourb., Paul and Son.
Mrs. Peter Blair, H.T., A. Dickson and Sons.
Mrs. R. G. Sharman Crawford, H.P., A. Dickson and Sons.
Mrs. Rumsey, H.P., Rumsey.
Mrs. Sophia Neate, T., Bide.
Mrs. Stewart Clark, H.T., H. Dickson.
Mrs. W. Cooper, H.T., H. Dickson.
Mrs. W. H. Cutbush, Poly., Cutbush.
Mrs. W. J. Grant, H.T., A. Dickson and Sons.
Mrs. Wakefield Christie-Miller, H.T., McGredy.
Muriel, H.P., F. Cant.
Muriel Grahame, T., A. Dickson and Sons.
Nance Christy, H.T., B. R. Cant and Sons.
Nelly Johnstone, T., Paul and Son.
Nita Weldon, T., A. Dickson and Sons.
Nymph, Mult., W. Paul and Son.
Paula, T., Paul and Son.
Paul's Early Blush, H.P., Paul and Son.
Paul's Single White, H.P., Paul and Son.
Peace, T., Piper.
Peggy, H.T., A. Dickson and Sons.
Phyllis, Poly., H. Merryweather and Sons.
Pink Rover, H.T., W. Paul and Son.
Pride of Reigate, H.P., Brown.
Pride of Waltham, H.P., W. Paul and Son.
Prince Arthur, H.P., B. R. Cant and Sons.
Princess Beatrice, T., Bennett.
Princess Louise Victoria, H.P., Knight.
Princess May, H.T., W. Paul and Son.
Princess of Wales, T., Bennett.
Psyche, Mult., Paul and Son.
Pure Gem, Wich., Spooner.
Purity, Hybrid Bourb., Cooling.
Queen Alexandra, Mult., J. Veitch and Sons.
Queen Mab, China, W. Paul and Son.
Queen of Spain, H.T., Bide.
Queen of Queens, H.P., W. Paul and Son.
Queen of Sweden and Norway, T., Paul and Son.
Queen of Waltham, H.P., W. Paul and Son.
Red Dragon, H.P., W. Paul and Son.
Red Gauntlet, H.P., Postans.
Red Pet, China, Paul and Son.
Refulgence, H. Briar, W. Paul and Son.
Rev. Alan Cheales, H.P., Paul and Son.
Rev. David R. Williamson, H.T., A. Dickson and Sons.
Reynolds Hole, H.P., Paul and Son.
Robert Duncan, H.P., A. Dickson and Sons.
Robert Scott, H.T., A. Dickson and Sons.
Rosalind, Hyb. Musk, Paul and Son.
Rose Apples, Rug., Paul and Son.
Rose Bradwardine, Briar, Lord Penzance.
Rosslyn, H.P., A. Dickson and Sons.
Royal Scarlet, single H.P., Paul and Son.
Rugosa repens alba, Rug., Paul and Son.
Salamander, H.P., W. Paul and Son.
Sapho, T., W. Paul and Son.
Shandon, H.T., A. Dickson and Sons.
Sheila, H.T., A. Dickson and Sons.
Sheila Wilson, Hybrid, Hall.
Shower of Gold, Wich., Paul and Son.
Silver Queen, H.P., W. Paul and Son.
Simplicity, H.T., H. Dickson.
Sir Rowland Hill, H.P., Mack.
Snowstorm, H. Musk, Paul and Son.
Souvenir de S. A. Prince, T., Prince.
Souvenir of Stella Gray, T., A. Dickson and Sons.
Spenser, H.P., W. Paul and Son.
St. George, H.P., W. Paul and Son.
Stanwell Perpetual, P. Scotch, Standish.
Star of Waltham, H.P., W. Paul and Son.
Starlight, Mult., Paul and Son.
Sulphurea, T., W. Paul and Son.
Sultan of Zanzibar, H.P., Paul and Son.
Sunrise, T., Piper.
Sylph, T., W. Paul and Son.
Symmetry, H.P., Paul and Son.
T. B. Haywood, H.P., Paul and Son.
Tea Rambler, Paul and Son.
Tennyson, H.T., W. Paul and Son.
The Alexandra, T., W. Paul and Son.
The Dandy, H.T., Paul and Son.
The Lion, Mult., Paul and Son.
The Queen, T., Bennett.
The Wallflower, Mult., Paul and Son.
Thelma, Wich., Spooner.
Theresa, H.T., A. Dickson and Sons.
Theresa Bevan, T., Garraway.
Tom Wood, H.P., A. Dickson and Sons.
Topaz, Wich. T., Paul and Son.
Ulster, H.P., A. Dickson and Sons.
Una, Hybrid, Paul and Son.
Violet Queen, H.P., Paul and Son.
Viscountess Folkestone, H.T., Bennett.
Vivid, H.C., W. Paul and Son.
W. E. Lippiatt, H.T., A. Dickson and Sons.
Walter Speed, H.T., A. Dickson and Sons.
Waltham Bride, Mult., W. Paul and Son.
Waltham Climbers Nos. 1, 2 and 3, H.T., W. Paul and Son.
Waltham Rambler, Mult., W. Paul and Son.
Waltham Standard, H.P., W. Paul and Son.
Warrior, H.T., W. Paul and Son.
White Baroness, H.P., Paul and Son.
White Dorothy Perkins, Wich., B. R. Cant and Sons.
White Lady, H.T., W. Paul and Son.
William F. Bennett, H.T., Bennett.
William R. Smith, T., H. Dickson.
William Shean, H.T., A. Dickson and Sons
Zenobia, Moss, W. Paul and Son.
Zephyr, T., W. Paul and Son.



THE NEW DESSERT APPLE ST. EVERARD. (*Natural size.*)

THE FRUIT GARDEN.

NEW DESSERT APPLE ST. EVERARD.

THIS excellent new Apple was fully described on page 511 of our issue for the 16th inst. As stated there, it is the result of a cross between Cox's Orange Pippin and Margil, two varieties of particularly good flavour. It was exhibited by Messrs. James Veitch and Sons, Limited, before the fruit and vegetable committee of the Royal Horticultural Society on September 28, when it received the high award of a first-class certificate.

FRUIT NOTES.

PREPARING FOR PLANTING.—It is safe to assume that those who have many trees to plant during the present season will have put the preparatory operations in hand some weeks back; but where, as is usually the case in the smaller gardens, only a limited number have to be dealt with, all the work can be accomplished in a comparatively short time. There cannot be the slightest doubt as to the wisdom of doing all that is possible in advance, for the grower is then able to take advantage of the first fine day after the trees arrive from the nursery to get them in their permanent positions. On the other hand, when nothing has been got in readiness, it is quite conceivable that the delay necessitated by the formation of the stations may mean a delay of a month or even more in the planting, for with the advent of November one never knows when weather totally unsuitable for the planting of fruit or any other trees may set in or how long it will last when it does come. Therefore prepare the stations and the stakes, so that the actual planting may be expeditiously carried out when the trees arrive and the condition of the land will permit of it.

In the formation of stations it is customary to take out a good spit of soil and then thoroughly cultivate the second spit, incorporating manure if it is considered desirable, as judged by the known fertility of the soil, and if the hole can remain open a week or two before planting is done, so much the better. Not only will exposure to the weather, as suggested, sweeten the soil and add a little to its fertility, but it will give time for the settlement that naturally follows the digging, and it will not be so likely that the roots will be disturbed subsequently. If the soil is positively known to be impoverished, it is wise to add a quantity of manure to the subsoil, but no more than is absolutely essential should be used, and it must never be placed where it will come in contact with the roots. The depth will be approximately 1 foot, and the diameter may be at the discretion of the planter, provided that he allows for at least 1 foot of new soil round the extreme spread of the roots. This is of material advantage, since it favours

the ready extension of the roots after they have been laid out to their full length, and therefore reduces the probabilities of striking downwards.

Planting.—The time has gone by when people used to take out one spit of soil, ram in the roots, and after throwing in a little soil, jump on it to settle it down into position. Nowadays it is acknowledged that those who would achieve the greatest success over the longest possible period must regard careful planting as the foundation of their results. One does not plant a tree as one plants a Geranium—for one season only, but for many seasons; and one expects that after a reasonable time has elapsed there will be a regular annual return. If one expects so much, then one should give something, or rather everything, to favour it. And good planting does this. Before the roots are set in the previously prepared station, either some entirely new loam or some of the finest quality top soil should be put in, for it is decidedly unwise to place the roots on the possibly unsweet and partially impoverished subsoil.

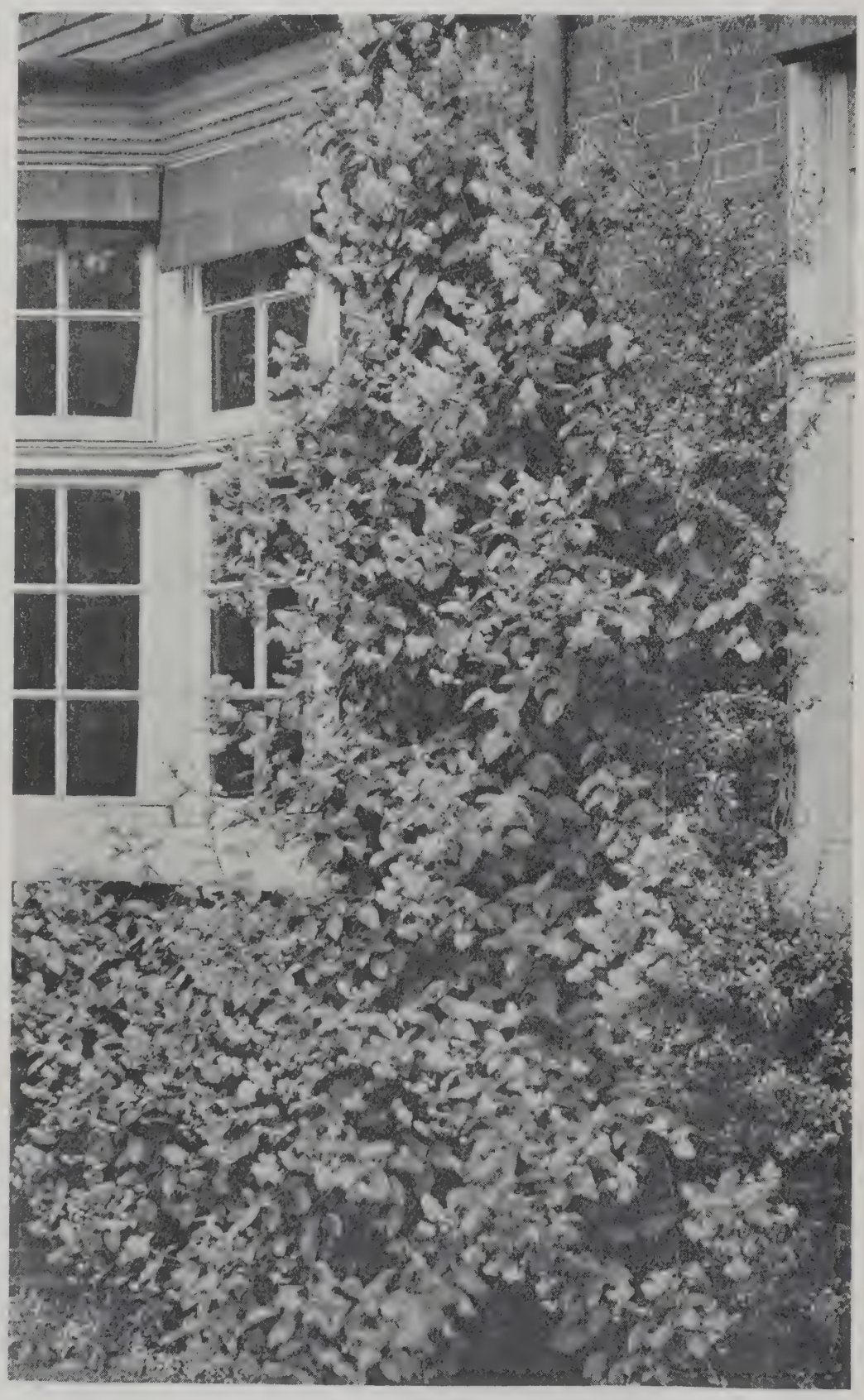
This done, all roots should be fully spread out and the soil worked well in between the layers; at the same time as one gives a persistent outward tendency from the main stem, or bole, one should ensure a slight downward direction, since it is natural to the roots to extend outwards and downwards, and in this matter it is well to closely copy Nature. When the operation is completed the mound will rise rather above the normal level of the ground, but it will settle down with the weather and time. There is one most important detail which must never be overlooked before planting, and that is to be perfectly certain that not a single bruised or damaged root has gone into the soil; look them over carefully and cut back all that are broken to sound, healthy parts. It is almost always wise, if not imperative, to use stakes, and these should be placed in position before planting, since to drive them down when the roots are in means that many of these will assuredly be damaged in the process. Fruit-grower.

TREES & SHRUBS.

CEANOTHUS IN A NORTH LONDON GARDEN.

CEANOTHUS GLOIRE DE VERSAILLES is the best of this family for all-round purposes. The small lavender blue flowers look chaste and are very showy; they are borne in clusters at the points of the new growths. It does well as a shrub in the border or, as seen in the illustration, trained up a wall.

Highgate. C. T.



CEANOTHUS GLOIRE DE VERSAILLES IN A HIGHGATE GARDEN.

THE SIBERIAN CRAB.

The Siberian Crab, Pyrus baccata, is one of the most ornamental of the many showy kinds of Pyrus, and it has the advantage of retaining its fruits until well on into the winter; in fact, fruits have been known to hang on the trees until March. This makes it a desirable tree to plant, were it not for the fact that the fruits are much esteemed for making into jelly, which in itself is a sufficient reason for the tree being grown. P. baccata is a widely distributed species, being found from the Himalayas northwards to Siberia and north-eastwards to Japan. Under cultivation it forms a round-headed tree 20 feet to 25 feet high, with a wide spread, and bears white flowers, slightly flushed with pink, with exceptional freedom in May. The fruits are three-quarters of an inch to 1 inch in diameter, and are bright red and yellow in colour. Several varieties are known, of which cerasifera has rich red, cherry-like fruits; microcarpa, very tiny fruits; and macrocarpa, fruits double the size of those of the type. It is closely allied to the Siberian P. prunifolia, and there does not appear to be any wide distinguishing line between the two species. Typical fruits of the two species, however, exhibit a difference in the calyx teeth, for while they are usually rather prominent in P. prunifolia until the fruits fall, they nearly always fall very early in P. baccata. The fruits of P. prunigolfa ripen and fall considerably earlier than those of the other species. All these form beautiful objects in the woodland during the autumn months. W. D.

THE FLOWER GARDEN.

IRISES EDGING A PAVED PATH.

THE sunlight is so strong in the illustration on page 528 that it is not at first easy to see the nature of the path. It is paved with flat stones, and has for edging the entire length on either side Bearded Irises and Violas. The Iris chiefly shown is I. florentina, but those at the lower end on the right-hand side are some of the Intermediate Irises raised by Mr. Caparne in Guernsey some years ago. Golden Fleece, Ivorine and Edith are those here planted, and I find them excellent to associate with the well-known Florentine Iris, both in harmony of colour, period of flowering, and similarity of stature and habit.

The Irises on the left-hand side at the further end are more recently planted, and were not of flowering strength this season. The Violas are mostly cool mauve shades, such as Kitty Bell and Maggie Mott, or purple, like Archie Grant. They form a good contrast to the pale lavender and creamy yellow tints of these Irises, and, of course, carry on the interest after the Iris blooms are over, and are very charming running out over the stones from among the tufts of glaucous leaves. A row of choice Daffodils is planted on either side behind the Irises, and tall perennials behind them, which grow over the bare spaces left after the departure of the Daffodils.

I find the Bearded Irises very useful to grow in hot, dry, poor ground, of which this garden contains a good deal. I. florentina and I. germanica will cover the ground well almost the whole year even under old Yews, and with a little attention as to top-dressing and occasional division will flower well enough to pay for the trouble taken.

E. A. Bowles.

Waltham Cross.

NATIONAL SWEET PEA SOCIETY'S CLASSIFICATION OF SWEET PEAS FOR 1910.

Owing to the popularity of the Sweet Pea, we have much pleasure in publishing the subjoined particulars, which have been sent to us by Mr. C. H. Curtis, secretary of the National Sweet Pea Society. The selection of varieties should prove of considerable value to our readers as an indication of varieties to purchase either for autumn or spring sowing. The following is an up-to-date selection of varieties in commerce, drawn up by the floral committee:

White	Etta Dyke, Nora Unwin and *Dorothy Eckford
Crimson and Scarlet	The King, *King Edward and *Queen Alexandra
Rose and Carmine	John Ingman, Marjorie Willis and *Prince of Wales
Yellow and Buff	Clara Curtis and *James Grieve
Blue	A. J. Cook and *Lord Nelson
Blush	Mrs. Hardcastle Sykes
Cerise	Chrissie Unwin and *Coccinea

Pink	Countess Spencer and *Prima Donna
Cream Pink	Constance Oliver, Mrs. H. Bell and *Queen of Spain
Orange shades	Helen Lewis, St. George and *Miss Willmott
Lavender	Frank Dolby, Mrs. C. Foster and *Lady G. Hamilton
Violet and Purple	Rosie Adams and *Duke of Westminster
Magenta	Menie Christie
Mauve	The Marquis and *Mrs. Walter Wright
Maroon and Bronze	*Black Knight and *Hannah Dale
Picotee Edged	Elsie Herbert and Mrs. C. W. Breadmore
Striped and Flaked (Red and Rose)	Aurora Spencer, Yankee and *Jessie Cuthbertson
Striped and Flaked (Purple and Blue)	*Prince Olaf
Fancy	*Sybil Eckford
Bicolor	Mrs. Andrew Ireland and *Jeannie Gordon
Marbled	*Helen Pierce

An asterisk denotes a variety that is not waved.

Too-much-alike Varieties.

The following varieties have been bracketed as too much alike. "Not more than one of the bracketed varieties shall be shown on the same stand at any exhibition of the National Sweet Pea Society."

White.

- Etta Dyke
- Paradise White
- Purity
- Snowflake
- White Spencer
- White Waved

Crimson and Scarlet.

- Miss E. F. Drayson
- Queen Alexandra
- Scarlet (Baker's)

- Dodwell F. Browne
- King Alfonso
- King Edward Spencer
- Paradise Crimson
- Rosie Gilbert
- Sunproof Crimson
- Sunproof King Alfonso
- The King [(Dobbie's)

Rose and Carmine.

- Albert Gilbert
- Lady Farren
- Marjorie Willis
- Rosalind
- Splendour Spencer

- E. J. Castle
- George Herbert
- John Ingman
- Mrs. W. King
- Paradise Carmine
- Phyllis Unwin
- Rosie Sydenham
- Rosy Morn
- Spencer Carmine

Yellow and Buff.

- Harold
- James Grieve
- Mrs. Collier
- Mrs. A. Malcolm
- Yellow Hammer

- Clara Curtis
- Paradise Cream
- Primrose Paradise
- Primrose Spencer
- Primrose Waved
- Princess Juliana
- Waved Cream (Malcolm's)

Blue.

- Flora Norton
- Miss Philbrick

- Anglian Blue
- Flora Norton Spencer
- Kathleen McGowan
- Zephyr

- Mid-blue
- Zoe

Blush.

- Beauty (Bolton's)
- Bobby K.
- Countess of Northbrook
- Florence Morse Spencer
- Lorna Doone
- Mrs. Hardcastle Sykes
- Princess Victoria

- Blush Spencer
- Lady Althorp
- Mrs. T. G. Baker
- Paradise Regained
- Sankey Spencer

- Constance Oliver
- Doris Usher
- Nell Gwynne

Pink.

- Countess Spencer
- Enchantress
- Paradise
- Pink Pearl

Cream Pink.

- A. B. Bantock
- Earl of Plymouth
- Holdfast Belle
- Kitty Lea
- Mrs. Hugh Dickson
- Mrs. Henry Bell
- Mrs. Routzahn Spencer
- Queen (Sutton's)
- Romani Ronni

Orange.

- Dazzler
- Edna Unwin
- Gordon Ankentell
- Ruby
- St. George

- Earl Spencer
- Nancy Perkin

Lavender.

- Giant Lavender (Stark)
- Lady Grizel Hamilton
- Lavender George Herbert
- Masterpiece
- Mrs. Charles Foster
- Mrs. Walter Carter

- Countess of Radnor
- Lady Grisel Spencer

Magenta.

- Menie Christie
- Mrs. Charles Mander

Mauve.

- Ida Townsend
- Tennant Spencer
- The Marquis

Maroon and Bronze.

- Anna Lumley
- Black Knight Spencer
- Douglas Unwin
- Maroon Paradise
- May Gerhold
- Nubian
- Othello Spencer

Picotee Edged.

- Dainty Spencer
- Distinction
- Elsie Herbert
- E. J. Deal
- Lady Althorp Improved
- Winifred Deal

- Mrs. Townsend
- Phenomenal

- Evelyn Hemus
- Mabel Cole
- Mrs. C. W. Breadmore

Striped and Flaked (Purple and Blue)

- Hester
- Marbled Blue

- President
- Senator Spencer

Varieties to be Excluded from Future Trials.

- Her Majesty
- Splendour
- Duke of Sutherland
- Monarch
- Lottie Eckford
- Maid of Honour
- Ivy Miller
- Stanley
- Boreatton
- Lord Rosebery
- Cyril Breadmore
- Mrs. Felton
- Dora Cowper
- Devonshire Cream
- Ceres
- Yellow Dorothy Eckford
- Captain of the Blues
- Bolton's Blue
- New Countess
- Princess May
- Modesty
- Duchess of Sutherland
- Sensation
- Countess of Aberdeen
- Miss Bostock
- Pride of St. Albans
- Olive Bolton
- Codsall Rose
- Gorgeous
- Miss B. Whiley
- Mildred Ward
- Countess of Lathom
- Coral Gem
- Pink Gem
- Vera Jeffrey.

RODGERSIA PINNATA.

Of the Rodgersias this is certainly the most handsome species, as may be seen by the accompanying illustration. It grows about 5 feet high, with shortly pinnate leaves of ample dimensions and good substance. It is somewhat later in starting into growth than R. podophylla, but lasts in perfection much longer into the late autumn. The leaves also are not so liable to sunburn, which makes the foliage of R. podophylla so unsightly at times. Seeds of this species were sent home to Kew by Dr. A. Henry in 1898, who says: "I found it in the fruiting condition on cliffs about 8,000 feet above sea-level in the great mountain range north of Mengtse in Yunnan." It flowered for the first time in this country in July, 1902, and the plant illustrated is the original, which has not been moved since it was planted out in a seedling state nearly ten years ago. All the basal leaves are pinnate, and produced on long, stout petioles, while those on the stem gradually diminish in size upward to digitate, ternate and simple leaf-like bracts. The stems are stout and bear a large panicle of rose-coloured flowers, which are slightly fragrant. Later on the stems, petioles and inflorescence assume a dull crimson shade, rendering it a most attractive object.

All the Rodgersias are excellent for the moist and more or less shady portions of the rock garden, and they may also be grown with success in the shady border or in places where Ferns are at home. They are all gross feeders, with thick, woody rhizomes and large foliage; therefore they require a strong, moist soil, but with thorough drainage. The plant illustrated is growing in a peat bed only just above the level of a small water-course, and the water percolates into the bed and keeps it supplied with moisture. Seeds are produced in plenty and they germinate readily, but the seedlings are rather slow in developing. The seeds should be sown in sandy peat, then placed in a little heat, and as soon as the seedlings are large enough they may be pricked off into boxes of the same compost and grown on in a cold frame till large enough to plant out. A white variety of R. pinnata was introduced from Western China in 1904 by Messrs Veitch and Sons through their collector, Mr. Wilson. It resembles the type in all respects except in the colour of its flowers. R. æsculifolia, a plant with digitate leaves and panicles of small white flowers, was also introduced at the same time as the last from Central China. It is stated by Mr. Wilson to be the commonest Chinese species, extending from Central China to the Tibetan frontier. The oldest species, R. podophylla, is a Japanese plant, and is pretty well known, but not so frequently seen in good condition as it deserves to be on account of its handsome foliage, which assumes a beautiful bronzy appearance in the autumn. The most distinct species is R. tabularis, from Northern China, with large, peltate leaves, which is also a recent acquisition, and bears panicles of small, whitish flowers. Another but rare species is R. sambucifolia, from the borders of China and Tibet, with long, pinnate leaves, and growing from 3 feet to 4 feet high.

W. Irving.

A RARE PLANT, RODGERSIA PINNATA, IN THE ROCK GARDEN AT KEW.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—All turf is now very soft, and so it is readily lifted, rolled and relaid where required. Although turf should be soft when it is cut, it is not wise to cut and relay it during a very wet spell of weather, because it is unpleasant work and is not as satisfactory as when done in drier periods. All turves laid and beaten down while the weather is dry and agreeable remain firmer than those which are put down in a very sodden state. New lawns which are to be formed by the laying down of fresh turves should be attended to at once. Equally important is the work of making patchy lawns good. Uneven parts of the lawn may be renovated by the judicious lifting of the turf, then filling in with sifted soil and a few ashes. It is a mistake to place a thick layer of very rich soil under the newly laid turves, because the growth of the grass the following year is too strong and the patches are only too conspicuous from the remainder of the lawn. A mossy lawn always gives a lot of trouble to the owner. If the position be a low-lying one, as is usually the case, and there are facilities for draining, every effort should be made to put in a drain at once. Stagnant water sours the soil considerably and favours the growth of moss. Drain the plot, and a more pleasing condition obtains in a very short time. Examine spring-flowering plants recently put out, and if some of the leaves are drawn into the soil by earthworms, free them, as it frequently happens that many plants are lost through this cause, small specimens quickly disappearing altogether.

Vegetable Garden.—In many gardens, more especially those in towns, I have seen Broccoli, Autumn Giant Cauliflowers, and several other kinds of plants grown for winter use quite destroyed by the caterpillars of the large and the small white Cabbage butterflies. I was surprised to see so many butterflies about during such a cold, wet summer. In my own garden they have been very numerous, and while visiting some friends in Essex recently the same feature was to be seen. In gardens in some parts of that county excellent crops of winter greens were to be seen, and it is very disheartening to realise that the latter are so liable to be destroyed or badly damaged by the onslaught of myriads of caterpillars. After the end of October the pests will not do much damage to green crops, and so every effort should be made to fill up gaps with strong Kale and spring Cabbages. Store Beet without delay now, carefully lifting the roots and placing them, packed safely in sand, ashes, or ordinary soil, in cool sheds. Remove all decaying Turnips from the beds and decaying leaves from vegetable plants generally.

Fruit Garden.—Peach and Nectarine trees trained on outside walls must receive some attention now. If there is any doubt about the proper moisture of the border, do not hesitate to give a thorough soaking of clear water. Remove all yellow and fallen leaves from the trees and near them, and burn them so as to destroy any insects hiding in them. The present is a very good time for filling the joints in walls where the mortar has dropped out, and in order to do this it will be necessary to unfasten the branches from the wall. Take care of the flower-buds when manipulating the branches, and tie them in very small bundles, not large ones and thus prevent the light and air reaching them.

Greenhouse and Frames.—Winter-flowering Begonias must be kept in as light a position as possible at this season, and be fed with clear soot-water to deepen the green colour in the leaves. Cyclamen plants should be grown on shelves near the glass, especially those specimens that are now flowering freely. Plants both in frames and houses that have not been potted recently and are now filling their pots with roots may receive some support from stimulants; Palms are much benefited if weak doses are given once every week.

B.

1.—ON THE LEFT IS SHOWN A GROWTH OF A SHRUBBY VERONICA SUITABLE FOR MAKING INTO A CUTTING, AND ON THE RIGHT A PREPARED CUTTING IS DEPICTED.

INCREASING THE SHRUBBY VERONICAS.

THE shrubby Speedwells embrace a very large number of most interesting plants that are less known in our gardens than their undoubted merits and beauty deserve. They comprise some very beautiful ornamental evergreen shrubs, mostly of New Zealand origin, and may be briefly described as hardy and half-hardy evergreen flowering shrubs. Some authorities aver that none of the plants are quite hardy in all parts of England, and for this reason they should be planted in sunny rockeries, borders and beds near the sea-coast in the south of this country and in warm, sheltered quarters, inland, south of the Midlands. The shrubby species must not be confounded with the herbaceous species, as they are quite distinct and different from the latter. This subject is said to derive its common name of Speedwell from the fact of its corolla falling off and flying away as soon as it is gathered.

The New Zealand Veronicas are not really difficult to cultivate, and they are not particularly fastidious as regards soil. When planted in sandy loam or good ordinary soil the plants invariably do well. One of the hardiest of the New Zealand species is V. Traversii, an erect-growing shrub with small, narrow leaves and lilac white blossoms; this shrub is of neat growth and attains a height of from 3 feet to 4 feet. It is a very handsome plant. Of this type there are others that differ in size and also in some other respects; these are V. monticola, V. anomala, V. Colensoi and V. pimeleoides. The most distinct of the hardier species are those known as the Whipcord Veronicas.

The best of this valuable group are the following: V. salicornoides, which is also known as V. cupressoides var. variabilis. This is a beautiful dwarf shrub forming a neat, low-growing bush not exceeding 10 inches in height. The plant is sparsely flowered, and the blossoms are white with pink anthers. V. cupressoides, height 2 feet to 3 feet, the flowers violet tinted, is a typical variety. Other interesting Veronicas are V. Hectori, V. Armstrongii and V. lycopodioides.

Less hardy kinds worthy of special mention, among others, are the hybrid New Zealand Veronica Andersonii — this plant attains a height of about 2 feet and bears pretty bluish

2.—A POT FILLED WITH CUTTINGS, THESE BEING ALLOWED PLENTY OF ROOM.

violet flowers in summer—and V. Andersonii variegata, a charming variegated form of the original. Other good kinds are V. salicifolia, a blush white variety flowering in summer, height 3 feet to 6 feet, and V. elliptica (syn. V. decussata), white, flowering in summer, height 3 feet to 8 feet. Of the hybrid kinds that can be recommended the following should be noted: V. Celestial, light blue; V. Purple Queen; V. imperialis, bright amaranth red; V. Jardin Fleuri, deep carmine; and V. Reine des Blanches, white. These less hardy kinds are well fitted for cultivation in a cool conservatory, where these easily grown shrubs invariably do well.

The beginner naturally asks, When may these Veronicas be propagated, and what methods should be adopted? Autumn is, without a doubt, the best period in which to propagate this subject. At that time the necessary growths are abundant and in a condition that they may be dealt with quite easily. In Fig. 1, on the left, is shown a fairly firm growth a few inches in length with elements of promise in it. On the right of the picture a cutting is shown properly prepared and ready for insertion. In the preparation of the cutting the lower leaves have been removed, and to complete the operation the stem of the cutting has been cut through with a sharp knife just below a joint; it is from this joint that the roots are emitted.

Having prepared the cuttings, the next thing is to insert them in suitable soil and in conditions that will promote the development of roots. A

3.—TWO EXAMPLES OF ROOTED CUTTINGS, SHOWING THE BRANCHING ROOTS, WHICH WILL QUICKLY TAKE HOLD OF NEW SOIL.

cold frame will answer the purpose of propagation admirably, and if an even bed of sandy soil be made up therein and made firm, the cuttings may be inserted in rows 1 inch or 2 inches apart with the greatest celerity. The cold frame answers the purposes of large growers admirably; but I am aware that there are a large number of readers who may, perhaps, need to raise only a few plants of some of the better or more interesting kinds. In that case cuttings inserted in pots will answer their purpose much better, as the pots can be plunged in a small cold frame or else stood on the shelves of the cool greenhouse or conservatory. Ten to a dozen cuttings may be accommodated in a 6-inch pot, as shown in Fig. 2. Before inserting the cuttings it is a good plan to place a layer of silver sand on the surface soil, so that as holes are made for inserting the cuttings a small quantity of sand is carried to the bottom of the holes, on which each cutting must rest. Be sure that the soil is pressed firmly to the base of each cutting as it is dealt with, and there will then be little fear of the result. Label and water in with water from a fine-rosed can, and this part of the work will then be completed.

In course of time the cuttings will have rooted, and this fact will be evident by the new growth visible at the apex of the rooted cutting. Before the roots get entangled, and while it is easy to separate the young plants, they should be pricked off in specially prepared beds in a warm, sheltered quarter of the garden when severe weather of the winter is a thing of the past. Those who have time and accommodation may utilise the services of a cold frame, or else pot up the young plants to be grown on in this manner. Fig. 3 is a good representation of two rooted cuttings; with such material there should be little difficulty in growing pretty plants. Fig. 4 represents a young shrubby Speedwell that is growing away vigorously and making a beautiful, shapely little plant. Such specimens may be raised in the manner I have indicated, and with the aid of a cold frame they may be controlled in their earlier stages with the greatest ease. This little specimen was raised in hardy fashion, planted out subsequently in a nursery bed, and finally placed in a pot 5 inches in diameter. D. B. C.

CYCLAMEN.—OLD AND YOUNG CORMS.

As decorative plants for the greenhouse and conservatory these take a high place. Undoubtedly young plants, when strong, are much superior to old ones, but the latter when well grown are exceedingly useful. No doubt hundreds of readers of The Garden possess a number of old and young plants and wish to make the most of them. In the first place, I would point out the advisability of keeping all the plants together on one stage in the house, and not place them singly among the other kinds of plants in the structure. At least this course ought to be taken up to a certain stage, namely, when the flowers are nearly all developed. By keeping the plants together the cultivator can attend to their requirements more easily and so give them the best treatment. Old corms, if perfectly healthy, will produce a large number of flowers, though both flowers and leaves may be smaller than those borne by more vigorous plants. Directly the pots are well filled with roots weak doses of clear soot-water should be given twice each week, and be then followed by judicious feeding with artificial manures. The younger plants will, of course, be growing in much smaller pots than the old ones, but they, too, must be fed. Cyclamen plants like the ammonia arising from soot, and the best way to apply it is to make some soot-water and, when it is quite clear, syringe some of it underneath the plants on the stage, wetting thoroughly the pots and the stage, but not the leaves any more than can be helped. Where the plants are growing on cinders on a stage, a small quantity of dry soot may be sprinkled on the cinders once a fortnight. So treated, Cyclamen plants will not get infested by thrips or red spider, and both the foliage and the flowers will assume a richer colour. A temperature of 58° by day and of 50° to 55° at night will do nicely.

AZALEAS IN POTS.

Indian Azaleas require very careful management when grown in pots under glass, and the inexperienced cultivator often loses nice specimens through bad watering. In the first place, I would remind beginners that the plants require cool treatment but security from frost, though they will force splendidly; but when subjected to a forcing temperature, frequent syringings are necessary and also a moist atmosphere generally. It is when these plants are grown on open stages immediately above the hot-water pipes that damage occurs through bad watering. The roots of the Azalea form a thick network in the compost, and as the compost is mostly of a light fibrous nature itself, it soon gets dust-dry, and then ordinary watering from a watering-can is practically useless, the centre of the ball of soil remaining dry. The only remedy is to immerse the pot in a pailful of water for at least twelve hours. It would be wiser to leave it in the water for twenty-four hours. Shamrock.

4.—A SMALL PLANT OF ONE OF THE SHRUBBY VERONICAS AS LIFTED FROM A NURSERY BED.

THE TOWN GARDEN.

The New Rockery.—If the amateur gardener decides to construct a rockery, much thought must be given to the various details connected with the work before any of the latter is actually commenced. Too often we find a rockery constructed in some out-of-the-way corner of the garden where neither the sunshine nor the light reaches it as it should do. Of course, Ferns and a few other kinds of plants thrive fairly well in the partial shade; but for the majority of suitable rockwork plants full light and much sunshine are absolutely necessary. Although the rockery must be raised above the ground level, it is not really necessary to construct a high one. Some persons have an idea that the plants usually grown on a rockery do not require much moisture, and, furthermore, that the stones used help to keep the soil dry. Both are mistaken ideas. Of course, many kinds of rockery plants do not require a lot of moisture, but there are others that do, and the stones used afford much moisture and also assist the growth of the plants by preventing the undue evaporation of moisture. The best position for a general rockery is one well open to the sunshine in a part of the garden where the surroundings are not formal, but in keeping with the outlines of the rockery itself.

How to Build the Rockery.—A heap of stones partially covered by loose loam does not constitute a rockery. Instead of supplying nearly all the soil after the stones, or pieces of rock, have been placed in position, it should be the first to be put down; then the stones must be fixed very firmly in the soil, some of them being almost buried, others half buried, and some about three-parts buried. There will be dells in the rockery—some stones must be laid down so as to present a flat top, or nearly a flat one in most instances—others will have sharp points sticking out of the soil, and still more pieces of rock will be so placed that neat pockets of soil will be formed between them. The work of fixing the rocks and the soil should be completed by the placing of some duly prepared compost between the various stones. For Ferns, Heaths and similar plants some peat must be mixed with the ordinary soil before the stones are placed in position, and more of the same kind of compost should be added after to complete the work. If peat be scarce, some nice leaf-soil may be added to some of it; the two ingredients, with a small quantity of sand, are very suitable for many kinds of plants possessing fine, fibrous roots.

How to Put in the Plants.—If the rockery is a small one, groups of plants should only be formed of some of the smaller-growing kinds; but if the rockery is a large one, then bold groups of many kinds of suitable plants will look very charming. Tiny specimens may be held in position by the placing of small stones on a portion of their roots, as more roots would quickly grow under the pebbles. The large specimens must be planted between the larger pieces of rocks. Sedums and similar small spreading subjects should be placed in the hollows on the top of large, flat stones, where they will quickly spread and form a dense carpet. The following are a few suitable kinds of plants, namely: Double and single flowered Arabis, Achillea tomentosa, Alyssum saxatile, Adonis vernalis, Ferns, very dwarf-growing shrubs, Aquilegias, Arenarias, Aubrietias, Foxgloves, Campanulas, Gentiana acaulis, Irises, Edelweiss, dwarf Phlox, Œnothera macrocarpa, Sedums, Saxifrages, Dianthuses, London Pride, Sempervivums, Cerastium tomentosum and Thrift.

Cuttings of Bedding Plants.—The present is a very trying time for cuttings of bedding-out plants in town gardens, especially where fogs prevail. Shelves in greenhouses which can be heated are good positions for many kinds of plants, and as Zonal Pelargoniums are not yet well rooted, a very moist atmosphere would prove harmful. Avon.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

Flower Garden.

PLANTING CLIMBERS.—This work should be pushed forward as fast as possible, selecting the most suitable positions for the more choice and tender kinds. The station for each plant must be thoroughly prepared and the soil rendered of a suitable nature. Ample drainage is most essential, and the land should be broken up several feet deep to allow abundance of space for the roots to travel, at the same time making preparation for protection against severe frost of all those plants that are likely to get injured. Roses of the wichuraiana type make such rapid growth that they may be freely planted both for poles and for the covering of old buildings, fences and walls.

Phloxes.—The present time is suitable to lift and replant these. For the production of large flowers young plants are the best, and although they may be struck from small cuttings springing up from the base, some capital plants can be quickly raised by digging up the outside young growths and planting them in good rich soil, allowing ample space for each plant to fully develop during the summer. The old stools may then be thrown away.

Bedding Calceolarias may still be propagated, selecting young soft tips and inserting them in sandy soil resting on a layer of manure, over which is placed hand-lights or cold frames to protect them in sharp weather and keep the cuttings moist.

Dahlias.—As soon as the tops of these have been cut by frost the tubers will need to be lifted and stored for the winter. Let each variety be labelled, and in a manner that the labels cannot get removed. Store them in any out-of-the-way place where frost cannot reach them. If placed side by side under the potting-bench and covered with leaf-mould or ashes they will keep sound till spring without further trouble.

Hardy Fruits.

Apricots.—These require good loam, plenty of chalk or lime rubbish, and in the warmer parts a western aspect is preferable. The soil should be made firm, the drainage good and the holes much larger than the length of roots at the time of planting. Good varieties are Moor Park, Shipley, Hemskirk and Royal. Young trees which have been planted a few years, and which are growing too strong to be fruitful, will benefit greatly by having their roots lifted, the strong ones shortened a little and then replanted at various depths, scattering a little fine soil and wood-ashes among the roots as the work proceeds.

Plums and all stone fruits, where heavy mulchings have been applied, will be all the better for having a few cans of lime-water given the roots at this season. Keep on with all lifting and root-pruning as fast as time will allow, and mulch with strawy manure to protect the roots from frost.

Vegetable Garden.

Cauliflowers.—Take these up when the heads are quite small and lay them rather close together in trenches where a little protection can be given should sharp frost set in. By going over the plants twice weekly the supply may be greatly lengthened. Veitch's Autumn Giant and Protecting are useful for late supplies. Young seedling plants raised from seed sown five weeks ago will need to be taken up and planted in cold frames, where protection is easily afforded. These plants with care prove useful for an early supply, although good crops can be had by sowing seed in heat in spring of the Early Snowball and Erfurt types.

Lettuces.—Plant plenty of young seedlings under hand-lights and in cold frames, and take up any which are fit for use and plant them where they can be protected. In the absence of frames a great deal may be done by planting the largest at the foot of a south wall; large quantities may be put in a rather small space. Endive may be treated in the same way.

H. Markham.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

Indoor Plant Department.

Stove Plants.—Shading having now been dispensed with, the glass and woodwork of all houses should be thoroughly cleaned, so that the maximum amount of light may be admitted to the plants. These, after being cleared of insects, may then be arranged to the best possible advantage, according to the contour and capacity of the structures and the classes of plants grown, any of these not having completed their growth being afforded positions at the warmest end of the house.

Crotons and Dracænas inserted as cuttings a few weeks ago will now have become rooted. If still plunged in a hot-bed, care must be exercised in their removal, if possible placing the pots upon the heating material rather than in it for a few days, or until the roots get inured to the change.

Pandanus Veitchii.—Suckers of this plant strike root quickly in a high and rather dry temperature. Highly coloured specimens are very susceptible to damp, and if used for table or room decoration are apt to deteriorate quickly; hence young plants as successions are useful. Keep up a supply of Panicum, Pilea muscosa and Tradescantia, which, while being useful as an edging upon stages, are doubly so for house decorative purposes when flowers get scarcer.

Eucharis growing freely should have a little stimulant occasionally. A bag of soot immersed in a tub of water, using the liquid when quite clear, is safe and effectual.

Caladiums, Gloxinias and Achimenes are best dried off gradually, while others that have quite lost their foliage may be packed upon their sides in some convenient but out-of-sight position free from drip and very drying influences; for instance, close proximity to hot-water pipes.

Palms at all potbound should receive stimulants regularly. Soot-water alternated with some favoured artificial fertiliser will supply their wants admirably and maintain health and vigour. On the other hand, plants recently disturbed or that are known to be but moderately rooted must be watered with care, never giving driblets, but thoroughly soak the ball when necessary to do so and rest content until dryness again ensues, which at this season and under proper treatment as to heat and atmospheric moisture may not occur for many days. The night temperature of the stove should now be about 65°, the variations, higher or lower, being in accordance with outside conditions, the day temperature from fire-heat alone being 70° to 75°, and the intermediate house being kept at about 10° lower all round.

Hardy Fruit Garden.

Apples, Pears and Plums.—Any root-pruning of these deemed necessary should be carried out at once. Strong-growing but unfruitful trees are best operated on from one side only at present, leaving the other till some future occasion. To commence take out a trench 18 inches wide a few feet from the base of the tree, according to the judgment formed of the extent of root-run. Into the trench carefully fork the soil from about the roots until the base of the tree is undermined. Sever all roots found taking a direct downward course and moderately shorten all others, afterwards making a firm bed of soil, upon which spread these out in a nearly horizontal form and cover the more fibrous ones with a little new soil, and again replace the earth first removed.

Renovating Trees.—It not infrequently happens that trees assimilate the supply of nutriment within their reach and exhaustion follows. With such a supply of good loam, bone-meal and lime rubbish should be prepared. After stripping most of the old soil from about the roots, with a knife freely gash the larger of these on the upper side to facilitate the emission of new roots, and again cover over with prepared soil to a depth of several inches, upon which a layer of well-rotted farmyard manure may be spread before finishing off with the thrown-out soil.

Planting.—As this is best done in November, preparations should be undertaken as time and weather permit. Any good fresh soil, but preferably the top spit from old pasture-land, is best. The herbage being mown from this as close as possible, it may be dug out from 3 inches to 4 inches in thickness and be roughly divided with the spade. According to its texture burnt ash, old mortar or even coarse sand, if very retentive, may then be added and all turned several times. Placed in a large heap and protected if necessary from excessive rainfall, the root-fibres will soon decay and the compost be ready for use when wanted. In the meantime the stations for the trees may be prepared; if against walls, by digging out holes 4 feet or 5 feet diameter the half circle, and rather more than this if in the open, putting aside the best soil and breaking up the substratum deeply.

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ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* The Garden *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* Editor *of* The Garden, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* Publisher. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Rooting Privet Cuttings (*Wickford*). Cuttings of the common Privet strike readily if cut into lengths of about 8 inches and planted during the present month in a rather gritty soil. Any ripened growths would do, and it is not necessary that the cuttings should all possess a heel. The cuttings would be best kept in the cutting-beds two years before planting out to form a hedge.

Pæony-flowered Dahlias (*J. A.*).—As the Pæony-flowered section of Dahlias grow rather tall and are of loose habit, we could not advise you to plant them in a windswept position. Really the Dahlia, a tender and brittle plant, is very badly fitted for such a position. But if Dahlias are desired, far better grow the more dwarf, compact-habited Pompons, the flowers of which are excellent for cutting and last a long time in water. There is not the least kind of connexion between Pæonies and Dahlias; such a connexion is impossible. The Pæony-flowered Dahlias were so named because the flowers are large, loose, generally single or semi-double, and much resemble those of many of our garden Pæonies. The strain came originally from Holland.

Perennial plants for draughty garden (*A. Johnson*). — You will find the following plants of service, unless the position is more than usually exposed to draughts or cutting winds: Sedum spectabile, Aster Amellus, A. alpinus, Senecio Doronicum, Campanula carpatica, C. c. alba, C. Moerheimii, C. persicifolia in blue and white, Statice incana, S. latifolia, Helleborus niger, Rudbeckia Newmanii (single and double), Pæonia officinalis fl.-pl., Lilium pyrenaicum, Phlox canadensis, any of the Violas or Tufted Pansies, London Pride, Aubrietias, Arnebia echioides, Clove Carnations (some of the best we have seen have occupied such positions), Muscari conicum, such dwarf Day Lilies as flava and Dumortieri, and, by no means least, Megasea cordifolia purpurea. If to these you desire to add more, try the following Flag Irises: I. Darius, I. Mrs. Darwin and I. Princess of Wales. Solidago Virgaurea aurea, Hepaticas, and blue, white and pink flowered Squills would all be useful, while, perhaps, Aster lævigatus would prove excellent in every way.

Pæonies (*M. W.*).—The following are all good and showy varieties in the colours named: Comte de Nanteuil, Duchesse de Nemours, grandiflora rosea, Ne Plus Ultra, M. Roussellon, Nymph, Canari, Belle Douaissienne, Duchesse d'Orleans, formosa, Triomphe de Paris and Irma.

Information about Chicory (*Combe-Hill*).—There is not, so far as we know, an improved garden form of the above that is more serviceable for its colour than the typical species. As a late blue-flowering subject the plant is most welcome, and any improvement thereon would be doubly so. There is no reason why the wild form should not be planted in the garden with excellent results.

Plants for ornamental pots (*P. B. T.*).—We hardly know what to suggest, much less to recommend, owing to the small size of the pots, though, perhaps, one of the Aubrietias would probably succeed as well as most things. In such a position and with pots so small, the amount of dryness and exposure would tell heavily against any success, and the best things we know of are Wallflowers and Snapdragons in self colours, Aubrietias or Alyssum saxatile compactum, all of which thrive quite well in wall crevices and in very dry positions.

Information about Phloxes and Antirrhinums (*Phlox, 73*).—The Phloxes are true perennials and can be left in the border with great advantage. Give them a mulching of manure, if possible, and frequent doses of manure-water when the plants are in growth next season. It will depend upon the severity of the winter and the position the plants occupy whether you can save these or not. In any case you can save seeds of any you may desire, and the plants may also be preserved if lifted and firmly planted into boxes. If the position is fairly sheltered, let them remain where they are, and take the seeds as soon as ripe and sow a few weeks later.

Transplanting Pampas Grass (*T. A. S.*). You may transplant your Pampas Grass providing you exercise ordinary care and leave the work until late next spring. April is a very good time, just as new growths are being formed and roots are active. If you do the work at that season, the plant will show few bad effects if you move a good ball of earth with it. If, however, you do the work during winter, it is probable that the plant will suffer severely, for the roots will be unable to perform their proper work for a period of several months. If you wish to increase your stock, you can cut pieces off the plant in April, pot them and stand them in a warm house until growth is active.

Information about Tree Pæonies (*Pæony*). If you desire to grow these Pæonies in the open, you should select a position sheltered from north and east, as the cutting winds from these quarters in the early months of the year are more harmful than frosts. The spot should, so far as is possible, be a naturally sheltered one, and given this and a depth of 2½ feet of rich loam, old mortar rubbish and charcoal, there is no reason why success should not follow. If you are devoting a bed to these things, the plants should be arranged at 3 feet apart, but you may plant good Daffodils in the intervening spaces. You ask for a few of the best varieties, but you may not be aware that some of these are expensive. If too much so, write us again. Lady Sarah Wilson, Reine Elizabeth, Lord Roberts, Cecil Rhodes, Countess Cadogan and Queen Alexandra. It is pleasant to reply to your question, as the Tree Pæony is one of the most beautiful of flowers, yet not often grown in our gardens.

TREES AND SHRUBS.

Creepers for walls (*I. C. B.*).—We cannot recommend you to plant Ampelopsis for the upper portion of a wall and a climbing Rose for the lower portion, as the former would promptly overwhelm the latter, and unless the wall is very high we should not advise planting the Ampelopsis at all. Good flowering climbers and wall plants are Cydonia japonica, Jasminum nudiflorum, J. officinale affine, Ceanothus azureus and C. Gloire de Versailles, and Roses Mme. Pierre Cochet, Perle de Lyon and William Allen Richardson for the taller position. For a good close-growing climber of evergreen character there is nothing to beat the Ivy. For the south wall you might plant Cratægus Pyracantha Lelandii and Clematis Jackmanii superba, these providing good summer and autumn effects in fruit and flowers respectively.

Information about Euonymus (*P. Z.*)—Generally speaking, the Euonymus transplants readily, and even in the case of established specimens there will not be any great risk in moving them. Four years ago we superintended the removal of some large bushes that had been several years in one spot, and they all passed through the ordeal without injury. Some lost all their leaves, but grew away again in the spring. They were moved towards the end of October, a very suitable time for the purpose. The first half of November is equally good. Care must be taken that these plants have a thorough soaking of water immediately they are planted. The Habrothamnus should do well under the conditions named. It may be shifted at the same time as the Euonymus.

ROSE GARDEN.

Rose Mildred Grant upon its own roots (*Byfleet*).—We are pleased to hear that your plant is upon its own roots, for many of our readers find a difficulty in growing this superb Rose the second year when it is budded. We have always contended that whenever there is a difficulty in growing any kind of Rose it is because it is budded upon an uncongenial stock, and invariably have proved that by taking cuttings and rooting them the difficulty has disappeared, and instead of a miserable, puny growth we have had vigour that betokened good health.

Manuring Rose-beds in autumn (*Walsall*).—Generally speaking, Roses require more nitrogenous manures than potash. As to whether you apply kainit, which is a potash manure, or basic slag, which is a phosphatic manure, depends upon the condition of your soil. We should obtain an analysis of the soil, but, failing this, we think the basic slag would be best to apply. Use it at the rate of 4oz. to 6oz. per square yard. If you could obtain some good, well-decayed stable manure, give the beds a dressing of this also in November, and at the same time fork it lightly into the soil. Then during the growing season afford good liquid manure liberally. By adopting this practice you will be able to grow first-rate Roses.

Dorothy Perkins to grow in a tub (*H. E.*).—To grow such a fine standard specimen of Dorothy Perkins as the one figured in our issue of September 11 could hardly be accomplished in a tub, especially one of such a small diameter as 16 inches. As you will observe, the fine tree figured is growing in a bed in the open garden. Nevertheless, you could grow a very fair specimen if you obtain a nice large-headed standard of one year old and plant it in the tub towards the end of October. You must make several holes of about 1 inch diameter in the bottom of the tub; then put in a layer 4 inches thick of broken pots, bricks or clinkers, and upon this about 2 inches of rough, lumpy loam. Ram all tightly down with a round piece of wood. Put in next about 3 inches or 4 inches of well-prepared compost consisting of loam and well-rotted manure, two parts of the former and one part of the latter, all well mixed together, and some quarter-inch bones at the rate of about 3lb. to a barrowful of the compost. Trim over the roots of the standard, cutting them back to about 6 inches, and place them about 8 inches deep, ramming the soil very tightly as you shovel it into the tub. Leave a space of about 1½ inches from the top edge of the tub. Before finally filling up the tub with soil, place a stiffish stick against the stem of the Rose for support. Keep the tub outdoors on a bed of ashes, removing it to a shed if the weather is very severe, but only under such circumstances as these; Roses are hardy and only need the roots protected against injury by severe frosts. No pruning is required the first season beyond removing the extreme ends of growths. During May and June copious waterings should be given at frequent intervals and liquid manure once a week. If you desire a bushy head rather than a drooping one, the long growths may be trained on a wire frame placed beneath. This induces the growths to send out laterals which bear the blooms. Should you at some future time have an opportunity of planting the specimen in the open garden, you will only need to knock the bottom out of the tub and remove the crocks.

Rosa rubrifolia (*Miss Russell*). — This species, though very beautiful in its foliage when well established, is rather slow in making a display. To see it at its best one must have four or five year old bushes and prune them down hard each season. It would have been better if you had planted this Rose on the outside of the bed and Mme. G. Bruant in the centre. Perhaps this can still be done without disturbing the rugosa Rose.

Rose growths unhealthy (*H. E. D.*).—We believe these scab-like abrasions, especially of the Tea and Hybrid Tea sections, were caused by the late spring frosts injuring the wood, and at pruning-time the plants were not cut back severely, as they should have been. This has been a remarkable season all through. Where we pruned our Roses hard we have had very healthy growth, but where left a good length some varieties have made very indifferent growth. It is very possible your soil is lacking in lime. We advise you to give the beds a good dressing this winter. It might even be advisable to replant your beds, and in so doing have the soil trenched and some basic slag incorporated with the lower soil. For a year or two try the plan of hard pruning. This will bring your plants into a healthy condition, for we do not think there is any disease. Good firm planting should be adopted. Often troubles arise owing to the soil being too loose around the roots, but it cannot be too loose on the surface. Add some good manure from a farmyard and avoid giving those of a chemical nature, excepting the basic slag alluded to.

Autumn-flowering climbers for Glamorgan garden (*K. E. J.*). — There are a few lovely perpetual-flowering climbing Roses which you do not appear to possess, and they would, we feel sure, succeed well in your beautiful district, although a very windy one. We can well recommend sorts like François Crousse, Lady Waterlow, Climbing Liberty, Dr. Rouges, Mme. Jules Siegfried, Grüss an Teplitz, Mme. Berard, Mme. Hector Leuilliot, Pink Rover, Waltham Climber No. 1, Reine Marie Henriette, Ards Pillar, Ards Rover, Climbing La France, Aimée Vibert, Mme. Alfred Carrière, Rêve d'Or, Virginie, Demont Breton, Alister Stella Gray and Zepherin Drouhin. Some of the stronger growing of the Tea-scented, Hybrid Teas and China Roses also are extremely useful to plant at the base of some of the pillars, especially where such sorts as Electra become somewhat scanty of growth. Varieties of the type of Corallina, General Schablikine, Comtesse du Cayla, Marie van Houtte, &c., are beautiful, and would soon attain a good height. They could be planted about 1 foot away from the other rambler, and providing the soil is of good depth will flourish beautifully. Some good rugosa Roses, with double or semi-double flowers, avoiding the sorts you possess, are Blanc Double de Coubert, Mrs. Anthony Waterer, Rose à parfum de l'Hay, Nova Zembla and Chedane Guinoisseau. These are all good for hedges. It is strange that some Roses grow well enough in one garden, but refuse to do so in another. Eclair is such a splendid colour, so double and of perfect form, that one cannot take too much trouble with it. Try the seedling Briar for it. Sometimes when budded on Manetti it refuses to grow. Bardou Job is another. We should ask for this on its own roots; failing that, then on the Briar stock. This exquisite Rose might be obtainable now, pot-grown, on its own roots. There should be no trouble whatever in growing Mme. Jules Gravereaux. Treat it as a strong-growing bush and prune it to the ground each year. Mlle. Bonnaire should certainly be obtained if possible. It is a charming Rose and is best on the Briar.

THE GREENHOUSE.

Treatment of Datura Knightii (*A. J. Nicol*).—The Datura you saw at Kew is Datura Knightii, a garden form of the Mexican Datura suaveolens. It attains the dimensions of a large shrub or small tree, and may be readily grown with much the same treatment as a Fuchsia. You cannot obtain seed of this, or indeed of any of the shrubby Daturas, but they strike readily from cuttings, and are kept in stock by those nurserymen who make a speciality of greenhouse plants. If you wish to grow a specimen, your better plan will be to obtain a vigorous plant next spring and treat it well, for the Datura is a liberal feeder. It should be shifted into a pot considerably larger than before, a suitable compost being good turfy loam,

well-decayed manure and a little sand. As the pots get well furnished with roots, liquid manure occasionally will be helpful. The plant may be stood out of doors during the summer, and in winter given much the same treatment as a Fuchsia; that is to say, it must be quite safe from frost and be kept moderately dry at the roots. Though the generic name of Datura is botanically correct, the plant in question is in gardens more often known as Brugmansia Knightii. There are some annual forms of Datura which are of rapid growth and may, during the summer, be planted out or grown in pots. Of these seed may be sown in the greenhouse during the spring, and the young plants potted on as soon as they are ready. Care must be taken not to let them get potbound in their earlier stages, or they will never again start freely into growth. The trumpet-shaped flowers of these annual kinds are very sweet-scented.

Treatment of a "Monarch of the East" (*E. R. Potter*).—The treatment given to your Monarch of the East was quite correct; that is to say, in potting it as soon as the flower faded. It is natural for the leaves to begin to decay now, but we do not understand it pushing up another shoot from the base, as it should now go to rest. We advise you to lessen the supply of water, and then, when the stem has died down, the soil must be allowed to get quite dry. Towards the end of the year it may be turned out of the pot and given the same treatment as last season.

Verbenas dying during the winter (*Aber*).—Losses among Verbenas during the winter are in many cases so great that some cultivators propagate many of them in the spring. The cuttings, for which clean, short-jointed shoots must be chosen, should be taken at once and inserted into sandy soil. About half-a-dozen cuttings in a 4-inch pot is a very convenient arrangement. They need to be kept in a close frame to root, but directly this takes place plenty of air must be given. The object then is to encourage short, sturdy growth, and keep free from mildew, which often causes great losses among Verbenas. Throughout the winter the best place for Verbenas is a light shelf in a dry greenhouse where the temperature does not go below 45°. Many of the fine flowering plants that one sees in Covent Garden Market are struck in heat early in the year, three or four cuttings being inserted in a small pot, and when these are well rooted they are shifted into their flowering pots without being separated.

Gesnera leaves diseased (*W. F. T.*).—We think the damage has been caused by an attack of red spider, traces of which are to be found on the leaves. We have known similar injury to be caused to the Gesnera foliage by a too strong application of artificial manure. We do not think that an eelworm has had anything to do with the injury.

Geraniums (*Enquirer*).—In all Geraniums the flowers in the interior of the truss generally die off before those on the outside are fully expanded. In order to have all the trusses at their best, or nearly so, at the same time, all flower-buds should be picked off from three weeks to a month before they are required.

Geraniums and caterpillars (*M. G.*).—The caterpillars that have done so much damage to your Geraniums are those of the common white butterfly. We know many cases where Geraniums are completely ruined by them, and though various remedies have been tried, even the best are only partially successful. Hand picking and destroying the caterpillars, dusting with Hellebore powder, and persistently destroying the perfect insects are the most effectual remedies that we have yet met with.

Re-erecting a span-roofed greenhouse (*Tudor*).—We think that the best and most profitable use you can make of your greenhouse, and with the least labour and expense to yourself, will be to grow fruit trees in pots in it. Should you decide to do this, there will be no staging required, as the trees will stand in the middle of the floor with a coat of ashes 2 inches deep under them, unless the floor is flagged, in which case no ashes would be wanted. We recommend the division to be left, as you might wish to slightly force half your trees, instead of having all the fruit ripe at the same time. A house of the dimensions you give would accommodate three dozen trees (eighteen in each division). You will find excellent articles on the growth of these trees and the best varieties to grow, by Mr. J. Hudson, in THE GARDEN; they have been published from time to time.

Diseased Lobelias (*Muriel*).—The Lobelia is attacked by one of the black moulds, a species of Macrosporium. Scarcely anything can be done with plants such as these; but, perhaps, spraying with potassium sulphide (1oz. to three gallons of water) may check the disease. Propagation should only be effected from perfectly healthy plants.

Primula leaves for inspection (*V. T. Kitchen*).—The enclosed Primula leaves are very badly attacked by the mite which has of late years given a good deal of trouble in many gardens. It was first noticed on Begonias; hence it is often referred to as the Begonia mite. It can be destroyed by vaporising with the XL All Vaporiser, or by dipping in a solution of nicotine. When the leaves, however, are in the state of those sent they cannot be restored to health.

Plants for naming and information (*Reader*).—The Thistle, of which a leaf is enclosed, is known as the Blessed or Holy Thistle. It is a native of Southern Europe, and its botanical name is Silybum marianum. This Thistle is a biennial; but it seeds so freely that there is no difficulty in keeping up a stock. The seedling Maidenhair, of which you enclose a frond, is much in the way of Adiantum scutum. It is of a light, graceful habit, and would certainly make a good decorative plant, but there are now a vast number of forms much in the same way.

Geranium (*L. D. C.*).—The name of the Geranium you sent is Double New Life. About thirty years ago the popular bedding variety Vesuvius sported into a flower striped with red and white. This was popular for a time, and some time in the eighties it showed a sport with double flowers. This was propagated and in its turn distributed under the name of Double New Life. For a while this was a good deal grown, but we have not met with it for some time, neither can we find it in any catalogues that we have consulted. The present-day taste is for self-coloured flowers rather than for those whose colouring is made up of stripes and flakes; hence the obscurity into which this variety has now fallen.

To keep Aspidistras white (*Mrs. Banks*).—It is quite impossible to keep the leaves of Aspidistras white, as a leaf that is wholly white is absolutely devoid of chlorophyll, so necessary to maintain the natural vigour of a plant. This may be seen in the case of many variegated subjects which produce a few white leaves, but they quickly die off. If you intend your question to read, How to keep the leaves variegated? we may say that you can do very little in this respect. Plants with variegated leaves, if potted in very rich soil, are apt to throw green leaves, but not if they are in ordinary potting compost. Individual peculiarity is another point to be considered, for some plants will produce a preponderance of green leaves, however they are treated, while in others grown under similar conditions every leaf will be variegated.

FRUIT GARDEN.

Muscats failing (*C. S. Gordon Clark*).—The cause of failure is due to lack of suitable conditions. In the first place, the aspect you mention, north-west, is unsuitable for growing Muscat of Alexandria Grapes. Then you say that fires were discontinued in June, so that it is hardly to be expected that these Grapes will succeed under those conditions, especially in a season like the present one when fires should have been kept going the whole time. The presence of plants like Ferns in the house would hardly tend to their well-being, as conditions that suit Ferns would hardly suit Grapes that are ripening.

The meaning of fruit tree names (*T. A. S.*).—The terms bush, espalier, standard, pyramid and cordon are applied to various kinds of fruit trees grown under different conditions. A bush Apple is one with no main trunk. It usually divides, a few inches above the ground line, into numerous branches, which grow out uniformly to form a shapely, more or less round, bush. A pyramid has a central trunk with branches from within a few inches of the ground to the summit. The branches at the bottom are the longest, and they gradually become shorter as they near the top of the tree, the whole forming a specimen of pyramidal outline. A standard is formed by allowing the tree to make a clear trunk of several feet before the head is developed. The length of trunk may be anything from 4 feet to 7 feet. An espalier-trained tree has a central trunk from which branches radiate from equal points from two opposite sides, the tiers of branches being about 9 inches to 12 inches apart. This method of training is often adopted for trees growing near the sides of paths, a trellis arrangement being used for a support. A cordon consists of a single stem covered with short spurs instead of branches. Cordons may be supported with stakes in the open ground or be planted against a wall. By training them in an oblique manner oblique cordons are formed.

Winter treatment of Black Hamburgh Grapes (*Vine Amateur*).—It will do the Vines a lot of good if you will give the borders, as early as possible, a good soaking of liquid manure from the stable or cowyard, both those inside and outside, giving the inside one a second watering of the same sort in the course of a week's time. The inside border should never be allowed to become too dry at any time, and weak manure-water should be applied alternately with clear water. This enriches the soil and will help the Vines greatly another year. The cause of the absence of bloom on your Grapes we suggest was overcropping. 2. Keep the ventilators open day and night in all weathers, except, of course, on very rough nights or when there is severe frost. 3. The Vines should not be syringed until they have started into growth in spring.

Fruit book (*Newland*).—We advise you to purchase "The Fruit Garden," published by the Proprietors of *Country Life* and to be had from this office. It is written by George Bunyard and Owen Thomas.

Pear trees for a 12-feet-high wall (*G. B. S.*).—The aspect is good, and all the varieties you mention would succeed as cordons excepting Winter Nelis. This variety is of diminutive growth and does not succeed well when trained in this form. Where the wall space is limited, and where it is desired to include a goodly number of varieties in such limited space, the cordon form of training Pear trees is excellent. They bear good crops in this way and remain (with careful culture) in robust health for many years. Another advantage that a cordon-trained tree has over any other form of training is that a wall can be furnished with fruitful trees in half the time it takes to furnish it with trees trained in any other way. Seeing that your trees are budded on the dwarfing Quince stock and that your wall is a good height, we think you would be well advised to confine your trees to two cordons only.

Branches of Apricot trees dying (*W. Phear*).—This is a malady common to the Apricot tree, scarcely any other fruit tree being affected by the same disease. There is a good deal of doubt and uncertainty as to the real cause of this disease (named canker) among Apricot trees. Our opinion, based on long experience, is that the fault lies in planting the trees in too rich a soil when they are young. This results in their making abnormally strong roots and, as a result, the same character branches. The consequence is that these over-gross young shoots, which will ultimately be the main branches of the trees, never properly ripen and become hard. For this reason these soft shoots are frequently frost-bitten during our hard winters. The wound so caused by frost leads to what is termed gumming in the branches, and, ultimately, as the trees get older, to canker, which causes the death of the branches. It is impossible to cure old trees which are affected by it; the only way to act with these is to encourage the growth of young shoots to start from the healthy part of the branch immediately below where the dead one came off. In this way old cankered trees may be made to bear fair crops of fruit for many years.

MISCELLANEOUS.

Fibre for bulbs (*D. A. J.*).—No; do not use the fibre again this year. There are so many fungoid and other diseases belonging to bulbous roots that all precautions against the transmitting of these parasites should be taken.

Kitchen garden brick walk infested with weeds (*C. B. S.*).—We know of nothing more effective than hand weeding in such a case as yours. Failing this, perseverance with applications of weed-killer or common salt should effect their destruction.

Coral spot fungus on trellis (*E. M. Wild*).—There is little to be feared with the coral spot fungus on the Roses, and we thing spraying unnecessary. It is much more likely to do harm to Currant, Horse Chestnut, Maple, Walnut and similar trees than to Roses. When a branch of these is seen to be attacked it is well to cut it right out.

Planting Asparagus (*Miramonte*).—The best time of year to plant Asparagus in your district will be the middle of March. The most profitable beds are made by planting one year old roots only. It is a mistake to plant old ones. Messrs. Maurice Young and Son of The Nurseries, Godalming, Surrey, are on your line and could, no doubt, supply you.

Killing a neigbour's trees (*L. P.*).—Your friend has no right whatever to take any steps to kill the Sycamores in his neighbour's garden. He may lop off all branches which overhang his garden without fear of consequences, but not beyond. Such points as these are constantly cropping up, and are matters that can only be satisfactorily settled by negotiations between the parties concerned. The neighbour may be a little awkward, but your suggestion to drill holes in the trees and put in mercury does not sound as though you would advocate the most peaceable measures.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

GARDENING FOR PROFIT.

Words of Advice.

FROM time to time letters reach us from persons of both sexes who are seeking information as to the best means of commencing one or more branches of gardening with a view to gaining a living thereby, and during the last few years such letters have increased in numbers considerably. Generally, the writers are evidently keen business people who have managed to save a few hundred pounds in whatever branch of business they may have been trained to, and who, apparently, are possessed of a desire to lead an open-air life. So far the idea is an excellent one; but we need scarcely say that such enthusiasts have never stopped to consider what it means. That a keen business man or woman in some other walk of life should imagine that they can transfer their energies, say, from a grocer's business to that of gardening, of which they are totally ignorant, seems incredulous; yet such is a fact.

Undoubtedly the many erroneous and misleading articles written by theorists in the daily Press on the subject during recent years are largely responsible for this desire on the part of many townsfolk to get their living direct from the land, and we fear that many who have plunged recklessly into some branch of gardening have suffered very considerably. Judging by the letters we receive, the writers have no idea as to what they shall grow or where they shall grow it, and imagine that they only have to dig and plant and Nature will do the rest. How wide this is of the truth all practical men and women will know only too well. It should be sufficient to cause these enthusiasts to seriously consider the matter when we say that we know many hard-working men and women who have devoted their lives, and in some cases long lives, to gardening for profit, and who find it a hard struggle to make both ends meet.

Even with the above facts before them, there are still some novices who are willing to venture in the subject, and it may, perhaps, be of service to point out a few of the difficulties that are likely to be encountered and some of the objects that must be considered. In the first place, capital is absolutely essential, that is, sufficient capital to carry on the work for several years and also to enable the cultivator to live, as returns of any substantial nature cannot be expected for a few years, no matter what crops are grown, as expenses at the commencement must of necessity be heavier than they will be in later years. Another point that we would like to impress upon the town dweller who wishes to garden for profit is the long hours of hard work that it will be necessary to put into the business. Up with the lark may sound an alluring prospect during the summer months when skies are blue and Nature is at her best, but the late autumn, winter and early spring months must also be remembered.

We referred previously to the novice's idea that it is only delving and planting that needs to be done and Nature will do the rest, but practical men and women know that Nature is usually apparently trying to do her worst. Frost, cold and boisterous winds, excessive drought or rain, hail, fungoid and insect pests galore, all combine to make the market-gardener's life anything but a bed of Roses.

Assuming that the novice still wishes to embark in the enterprise of profit gardening, there are a few hints that may be given, and which will apply to all. We mentioned before that usually such persons as we have in mind have no idea as to what to grow or where to grow it, and this undoubtedly is a very great stumbling-block. For a novice to think of growing produce for the London markets is absurd, and may be dismissed without further thought. What should be done is to find out what is really required in a locality and try to grow produce that will meet this demand. Generally speaking, better prices can be obtained from provincial towns than in the London markets, and providing the novice has a real love of the work, and is prepared to put several years into it before getting other returns than practical experience, it may be possible to make it pay.

Apart from ordinary gardening, we frequently have enquiries respecting the so-called French system of gardening, which, as many of our readers well know, has been carried on by our best gardeners for many years. In this, again, the daily Press has much to answer for in inducing people to invest their money in such businesses without first securing sound advice upon, and practical experience of, the subject. In considering the advisability of commencing this form of gardening, even the experienced man or woman must ask themselves whether there is sufficient demand in the country for such produce as to render the venture a successful one. We think that at present sufficient is being grown to meet the demand, and this is the experience of several who daily have their finger on the pulse of the market. Providing, however, the intending intensive cultivator has convinced himself or herself that there is sufficient demand for produce of this kind, they are at once faced with the enormous expense of commencing the work. Frames, cloches, manure, mats, baskets and a host of other apparatus has to be purchased.

Again, to compare the intensive cultivation of France with the same in this country is, to say the least of it, misleading. The French are notoriously a salad-eating nation, which, during cold weather, we are not (and salads form some of the principal crops); the climate of France is more favourable to the work, labour is cheaper there than here, and workmen will work more hours in a day there than they can be induced to do in this country.

Gardening for pleasure and gardening for a living are two widely different things. It is just as ridiculous for, say, a grocer, draper, stockbroker or clerk to imagine that he can get a living at gardening without previous experience as it would be for a lifelong gardener to attempt to get his living from one of the sources mentioned above.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

*** *The dates given below are those supplied by the respective Secretaries.*

November 9.—Southampton Royal Horticultural Society's Show (two days).

November 10.—Buxton Chrysanthemum Society's Show (two days); Northamptonshire Chrysanthemum Show (two days); Faversham Chrysanthemum Society's Show (two days).

November 12.—Bradford and Rochdale Chrysanthemum Show (two days); Huddersfield Chrysanthemum Show (two days).

Vegetables, old and new.—A lantern lecture on "Vegetables, Old and New" was delivered recently at Farnham, Surrey, by Mr. W. F. Giles, vegetable expert of Messrs. Sutton and Sons of Reading. The lecture was given under the auspices of the Farnham and District Horticultural Society and Chrysanthemum Show, and attracted over 100 members and others. At the close numerous questions were asked and answered, and on the motion of Mr. C. Moore, F.R.H.S., a vote of thanks was accorded to Mr. Giles for his most able and interesting address.

The United Horticultural Benefit and Provident Society.—The twenty-third anniversary dinner in connexion with the above society was held at the Waldorf Hotel, Aldwych, London, on the 28th ult., J. B. Slade, Esq., presiding, and a large number of members and friends being present. After the loyal toast had been heartily received, the chairman proposed "Continued Success to the United Horticultural Benefit and Provident Society," and in the course of an excellent speech drew attention to the aims and objects of the society, its economical working, the Benevolent Fund and the Convalescent Fund, all of which are unique features of this society. He also drew attention to the honorary and life members, and said he thought there ought to be more of the large horticultural firms of the country connected with the society in this way than there was at present. Mr. C. H. Curtis, chairman of the committee, in responding, said he was pleased to be able to state that, even in this bad year, the society had been able to invest more money than usual. Other excellent speeches were made by Messrs. J. Harrison Dick, T. N. Cox, Riley Scott, A. Dawkins and E. F. Hawes. We are pleased to be able to record that this excellent society is in a sound financial state, and would urge upon all our readers, particularly the young ones, the necessity of belonging to such a society for gardeners. There are two grades, in one of which the sick pay is 18s. per week, and in the other 12s. per week. In addition there is the Benevolent Fund, for assisting those who may have fallen on bad times without actually being ill, the Convalescent Fund, and also provision for old age. Sickness and misfortunes often come when least expected, and it is the duty of every gardener to be prepared for such. The secretary, Mr. W. Collins, 9, Martindale Road, Balham, London, S.W., will be pleased to furnish any gardener with full particulars.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

The National Vegetable Society and the Royal Horticultural Society.—As one who has taken much interest in the formation and work of the National Vegetable Society, may I be allowed space to record my indignation at the decision of the council of the Royal Horticultural Society to hold a vegetable exhibition next year. The facts, I believe, are these: The National Vegetable Society several weeks ago decided to hold an exhibition of vegetables in the autumn of next year, and consequently applied to the Royal Horticultural Society for the use of its hall for the purpose, the secretary of the Royal Horticultural Society subsequently offering the National Vegetable Society a date or dates. Then on the 26th ult. the council of the society, who must have known of the National Vegetable Society's intentions, decided that it would hold a similar exhibition, and this without consulting the National Vegetable Society with a view to a combined show. Those who know the exceedingly meagre treatment that exhibits of vegetables shown before the Royal Horticultural Society in the past have received, and the apparent indifference of the society to the value of vegetables, can only assume that the council is actuated by a motive that is unworthy of a body that professes to exist for the advancement of horticulture. Had the council done its duty towards vegetables in the past, there would have been no need for the formation of a National Vegetable Society. Such conduct as that of the council over this matter can only be regarded as a direct and unsportsmanlike attempt to smash the newly formed National Vegetable Society, and I leave other readers of THE GARDEN to take up the matter in the way they think best. If the council has any explanation of its conduct to offer, may we be favoured with it early.—A LOVER OF GOOD VEGETABLES.

The destruction of hedgehogs (*In reply to "W. R. M."*).—On no account destroy the hedgehogs, as they are extremely useful in feeding on garden pests. I introduced them to my garden some years since, and only see them occasionally, as they are nocturnal animals and hibernate during the winter, I have never known them to make holes, although they use holes made by rabbits, &c. Are you sure the holes are not made by some other animal?—B. K.

Rehmannia angulata.—This is practically a new plant, and was introduced from China by Messrs. Veitch of Chelsea. It is classed as a half-hardy perennial, yet here in our genial climate of South Devon we find it hardy, and plants that were left out on the borders all last winter have been flowering continuously from June to October. It throws up slender spikes of bloom from 2 feet to 3 feet high, the flowers being rosy purple with a yellow throat, similar in shape to those of Incarvillea Delavayii. It is a good plant for the greenhouse, yet no doubt it is seen at its best on the herbaceous border. Planted in a good clump of from twelve to twenty it is very effective. To increase stock, the young plants that are thrown up from the roots should be potted and placed in a close frame until they are established, when they can either be planted in their permanent quarters or kept in pots and used for the greenhouse. The variety Pink Perfection is an improvement on the type, being bright pink in colour and, perhaps, a trifle larger.—E. C. POOLEY, *Gnaton Gardens, Plymouth.*

Rose Chateau de Clos Vougeot. I note Mr. Molyneux's remarks anent my observations on the growth of the new Rose Château de Clos Vougeot. I believe I wrote (or, at any rate, I intended to do so) "I should *not* describe it as a rampant grower, but with me it breaks freely from the base, &c." I had thought of writing and correcting the error, but refrained from doing so as I considered the context showed it was a slip, the two statements being so contradictory. However, as Mr. Molyneux mentions the matter in a kindly way, I think it is only fair to myself to offer some explanation. I hope he does not think I am presuming to criticise his notes on the new Roses. Far from it. I simply thought I would place on record my experiences of this Rose, as my plants were on the seedling Briar and imported direct from the raiser. I quite appreciated the significance of Mr. Molyneux's remarks as to his plants being grafted, and hoped to put at rest his doubts as to the growth and habit of this variety.—B. W. PRICE, *Gloucester.*

A new Saxifrage and its relations.—In 1907 a new Saxifrage was sent to Kew under the name of Saxifraga madida, and proves to be intermediate between S. Fortunei and S. cortusæfolia, the five to seven lobed leaves resembling the latter in the depth of the lobes and the sharpness of the teeth. The flowers are similar to those of S. Fortunei in form and size, but they are produced in a widely pyramidal panicle and bid fair to be more effective than those of its two most closely related species. All three are now in bloom on the rock garden at Kew. S. madida was the first to bloom, though S. cortusæfolia was not many days behind it. The flower-scapes of S. Fortunei were only showing themselves among the foliage at the time, and would be about ten or twelve days later in reaching the same stage of development. We have thus a trio of autumn-blooming Saxifrages of no mean order from a decorative point of view. The foliage of the two better-known species is just a trifle susceptible to injury from frost after the flowering period, but the stout underground rootstock does much to preserve them in well-drained soils during winter. One of the most striking characteristics of S. madida is the round, kidney-shaped leaves. The flower-scapes are about 10 inches high, pale purple or green, branched and forming a large pyramidal panicle. The flowers are white, and one or two of the petals are twice or three times as long as the rest. This latter character is common to all the species of the section (Diptera) of the genus. Judging from the specific name, S. madida grows in wet or marshy places in Japan, and if grown in pots, as the others frequently are, would require a good deal of water during the growing period. When planted out, a site should be selected for it where the soil does not get too dry during the warmer parts of summer. S. Fortunei seems to be confined to China, though it may yet be found in Japan, for when Dr. Engler wrote about it in 1872 it was only known in English gardens. There can be no doubt, however, that all three are closely related. The only two other species belonging to the group are S. sarmentosa and S. cuscutæformis, both reproducing themselves by runners precisely in the same way as the Strawberry. The first-named is the best known, being widely cultivated both in this country and on the Continent as a window plant. Moreover, all of them are well adapted for pot culture, and may be placed in the window when in bloom. They last a long time in good condition under such circumstances, whatever the nature of the weather may be outside, and when they cease to be ornamental they can be placed in a cold frame for the winter. They may be repotted in spring if that is necessary, placed on a bed of ashes in the open air, and given plenty of water when in full growth. —J. F.

Polygonum baldschuanicum not flowering.—In your "Answers to

Correspondents" recently I noticed some notes on Polygonum baldschuanicum not flowering. I have had exactly the same experience as your correspondent appears to have had. I am not sure if this is the second or third summer I have had mine. It is planted in light, gritty soil, in full sun, and has grown rampantly, covering the front of an arch; but it has never shown the slightest signs of flowering. There is no reason I can assign for this, the wood being well ripened. I wondered if my plant was true to name and if I had another Polygonum. I shall have it grubbed up, and plant another and see what results. If you think the matter of sufficient interest, I would send you a spray for inspection. I think I have a good knowledge of gardening, but can assign no reason whatever for this plant proving barren; it certainly flourishes otherwise. It will be interesting to see if your notes bring forth other experiences like mine.—CLEMENTS G. O. BOND, *Furze Hills, Churt, near Farnham.* [We shall be glad to receive a spray. Probably it is an indifferent seedling.—ED.]

—— In THE GARDEN, page 523, a correspondent complains that Polygonum baldschuanicum has not flowered. I have had the same trouble with a plant which has been three years in the same spot without flowering. Mr. Morrison told me that they had the same trouble with a plant in the garden at Narrow Water House. Is it possible that there is a non-flowering variety? On page 521 a correspondent asks for suggestions for climbers for the front of a house. I was advised to wire the house with ordinary wire-netting and plant Muehlenbeckia complexa and Jasminum nudiflorum behind the netting, and the result has been very successful, notwithstanding the fact that the wall gets very little sun and is exposed to the sea breeze.—S. GRAHAME CONNOR, M.B., *Sea View Cottage, Warrenpoint, County Down.*

Colour nomenclature.—Miss Jekyll's arguments against the Royal Horticultural Society's colour chart certainly seem to tell in favour of it. It is precisely because of the difference of individual ideas in regard to colour that a recognised standard has become necessary. In describing certain hues, we have previously had nothing better to go upon than an imaginary similarity to Nature's own colouring; and, apart from their enormous range of tones, these colours themselves are constantly changing in accordance with the amount of transmitted light, the state of the atmosphere and the season of the year. For this reason some fixed standard is required, and in setting names to the colours it is surely better to adopt those already in our dictionary than to invent others that would convey no ideas to us. Popular conception, after all, is the only criterion in the case of "unwritten law," and this has been aptly interpreted by the committee. "Azure" and "flame" have been pressed into service as a matter of convenience, though I suspect the latter was originally coined to meet the needs of some enterprising draper. We all have our own ideas on the subject of colour, and, of course, "every single one of them is right." But who is to decide between us if not a committee of authorities such as that of the Royal Horticultural Society? And now that a practical solution of the difficulty is in sight, it seems a pity to attempt to override these carefully prepared descriptions, even though we are called upon to give up some of our preconceived ideas of what should constitute "mauve," for instance. We shall in turn be spared the worry of having "lavender" erroneously described to us as "heliotrope." It is because we have hitherto been without guidance on this subject that the present obvious confusion has arisen. The individual imagination is frequently at fault in regard to colour description, and I venture to assert that a perusal of the catalogues of some of our leading growers of Roses and Sweet Peas will convince most of us how misleading are the conceptions of others.—P. L. GODDARD, *67 and 68, Cheapside, E.C.*

NOTES MADE AT CRAWLEY.

AT the end of the third week in October we had the pleasure of spending a day with Messrs. J. Cheal and Sons at their Lowfield Nurseries, Crawley, Sussex, a firm that has long been famed for Dahlias, Roses, and fruit trees; hence we found plenty that was of more than usual interest on the occasion of our visit. Situated on the main road from London to Brighton, these extensive nurseries are easily accessible by motor, and, needless to say, the heads of the various departments are always pleased to show visitors whatever they may desire to see.

Dahlias commanded our attention first, and we doubt whether any other firm has done more to improve and popularise the single varieties than Messrs. Cheal, who have for long devoted considerable attention to this type. Those who only know the single Dahlias by the old, large, coarse flowers of a decade or two ago have no idea of the beauty of the varieties which have been raised by Messrs. Cheal during recent years. Not only are these splendid subjects for garden decoration during the late summer and autumn months, but they are also excellent for cutting at a season when bright flowers other than those of yellow colour are far from plentiful. A few that specially appealed to us were Flambeau, white, heavily edged crimson-scarlet; Flora, a sort of orange terra-cotta; Winona, deep velvety maroon; Columbine, the flowers of which remind one of the delicate fulgent rose hue found in the newer Columbines; and Miss Morland, rich crimson-scarlet. Then there were the Pompon Cactus varieties that no one could help admiring. Imagine a sturdy, spreading bush some 3 feet in diameter and the same in height literally covered with small but beautifully shaped Cactus Dahlias, all of which are held well above the foliage and, in fact, nearly obscure it, and you have a moderately good idea of the beauty of this race. It would seem that raisers have taken the old type of Cactus Dahlia, dwarfed its growth, made its flowers smaller and placed them where we have been accustomed to find the leaves, transferring the latter nearly out of sight. For garden decoration these Pompon Cactus Dahlias surely have a great future before them. Messrs. Cheal have a very large and beautiful collection, The Bride, pure white; Coronation, brilliant scarlet; and Modesty, flesh colour edged cherry red and a superb flower, being three that we favoured.

Then there were the Pompons proper—such a wealth of varieties, including all sorts of colours, the dainty and perfectly shaped flowers standing up well above the foliage. Messrs. Cheal send Dahlia tubers to all parts of the world, these being specially grown in small pots so as to get them hard and well ripened, and we saw thousands that would undoubtedly travel to any portion of the globe and arrive there in good condition.

Roses were the next to claim our attention, and these we found of first-class quality, the maiden climbers being particularly strong and well ripened, many of them having growth 10 feet to 12 feet long. As all the leading sorts and types were to be seen, there is no need for us to enumerate them; all were in an exceedingly healthy condition and possessed great vigour.

Of fruit trees we inspected many thousands of all sorts, sizes and shapes, from maidens to large, frequently transplanted specimens that come in exceedingly useful for filling up gaps in young orchards. Messrs. Cheal have a thoroughly up-to-date collection, and trained trees and cordons are a speciality. The new Apple Encore, raised by Mr. Charles Ross by crossing Warner's King with Northern Greening, we were able to see growing, and undoubtedly this is one of the culinary Apples of the future. The growth is sturdy and strong, and the fruits are freely produced on young trees, being dark green in colour and keeping good until June; the flavour when cooked is said to be first-class. The new Pear Beurré de Naghan, which created much interest when shown by Messrs. Cheal in December last year, we were also pleased to see. This is a superb golden yellow, smooth-skinned variety

A RARE PÆONY (PÆONIA VEITCHII). (*See page 542.*)

when ripe, the white flesh being very sweet, juicy and melting. Moreover, there is no grittiness or hardness to be found, Plum Crimson Drop is another new fruit of which Messrs. Cheal have a good stock, this being a sport from the well-known Coe's Golden Drop, which it resembles in every way except colour. We were pleased to notice a large house of well-ripened pot Vines, which should give a good account of themselves in the future. Orchard-house trees in pots are also largely grown, and we have never seen larger fruits of Apple Peasgood's Nonsuch than Messrs. Cheal have, the choicer Pears also carrying wonderful crops of high quality fruit.

Hardy trees and shrubs occupy a vast amount of space at these nurseries, and we spent several hours among these, all being of very good quality indeed. Lack of space forbids detailed mention of these, but we may say that practically all

WHITE HERBACEOUS FLOWERS AND WATER LILIES.

kinds of ornamental and forest deciduous and evergreen trees and shrubs are grown on an extensive scale. We have seldom met with a more healthy-looking lot of conifers than we saw here. Then there were the clipped trees, which are said to be coming into favour again. These are actually grown by Messrs. Cheal, and the large stock contains specimens that should suit all kinds of tastes. Rhododendrons and other American plants, Bamboos and all kinds of choice shrubs we saw in their hundreds, and all had that bold, sturdy appearance that augurs well for future success.

Naturally the herbaceous plants were almost at rest, but Messrs. Cheal have a splendid stock of all kinds and the best varieties, their pink-flowered Lupine being not the least among them.

THE FRUIT GARDEN.

AUTUMN-FRUITING STRAWBERRIES FOR AMATEURS.

THIS season, in many parts of the country, has not been a favourable one for the ripening of late fruits; on the other hand, the plants have made fine crowns and promise well for the future. There are now several distinct autumn-fruiting varieties, and they can be grown at a small cost as regards labour and space, so that they should in the future become better known. Since the advent of the earliest introduction, St. Joseph — raised in France by crossing a true alpine with a garden variety, which furnished us with an entirely new race of autumn fruits—have come the larger St. Antoine de Padoue, of which St. Joseph is one of the parents and the popular Royal Sovereign the other; and Laxton's Perpetual, in which also the popular St. Joseph has been used as one parent and the large Monarch or summer fruiter the other, and it is certainly a fine fruit of the autumn type, richer than St. Antoine de Padoue and the shape more after Monarch, with a deep red colour and good flavour. Doubtless the varieties noted above are only the forerunners of a distinct type of autumn-fruiting Strawberries.

Of other alpine forms there are some good varieties, such as Alpine White or the Blanc Ameliore of the French; Bergeri, a rich crimson, medium-sized fruit and a very free bearer; and one that is a great favourite at Gunnersbury House called The Gunnersbury, a large, long fruit, deep red and very prolific.

Of true perpetual types, last year I noted a fine lot of the new Alphonse XIII., a round, white-fleshed fruit, rich and good; but white fruits do not find much favour in this country, and I prefer the larger Louis Gauthier, a pale white with pinkish shade and of excellent flavour.

In the culture of these Strawberries the work, to yield a late supply, should be varied. For use in August and September I prefer an open, sunny quarter, and if the runners are planted in well-cultivated soil enriched with manure they will give an early crop. For instance, runners planted in the autumn will give a full crop in August and September of the following year. I have planted in April and had a good autumn supply. As I have previously noted, the perpetuals are mostly of compact habit; but there is no gain in crowding, as the fruit is produced at a season when the days are shortening and the sun less powerful. It is an advantage to give room, so that the fruits are freely exposed. If planted in rows 18 inches apart and 12 inches between the plants, this will suffice, but I prefer more room between the plants in the row.

Runners are produced freely, and these may be detached from the plants into 3-inch pots when ready, and when strong enough placed in 5-inch pots for November supplies, removing flowers as they show till the end of August. I prefer to plunge the pots, as it saves watering. These plants, if placed on shelves early in October, will give the latest fruits, and they will take liberal supplies of food. Another plan, and one that will meet with more general approval, is to pot up strong runners in June or July direct into the fruiting pots and grow on a cool coal-ash base through the summer, keeping them clear of runners and flowers till the end of August, or even later for a November supply. When housed the plants require very little warmth to set and swell up their trusses; 50° to 60° is ample, and they do well on shelves. If grown in a frame, moisture must be given sparingly when the weather is sunless, and the plants should be near the light and ventilated freely in fine weather. Plants may be placed in frames in October and merely sheltered from heavy rains, transferring them to the shelves as required; by this means fruit may be had in December.

In the open runners planted in autumn fruit early in August, and spring runners give a later crop, but here the same procedure is required as regards removing the earlier blossoms to get the fruits at the season required. It is well to plant in both autumn and spring to get a long succession of fruit.

G. WYTHES.

THE FLOWER GARDEN.

A WHITE GARDEN.

"It lives in such a sweet content,
With flowers below, and stars above
Dreamful, and white, and innocent."

MANY a lovely garden has the writer seen in bowery England and fair France, but never one so strangely, mystically beautiful as the White Garden that is hidden away in a green corner of the Midlands, a part of England where, as a rule, hunting is a more popular pursuit than horticulture and horses are more talked about than flowers. But here is the white garden and a thing of joy it is. For the benefit of any who may be contemplating the making of such a garden for themselves, a few words of description shall be given, together with a list of the flowers that were noticeable in it during the month of July. Nearly all the flowers mentioned were in bloom. Other white flowers for spring and autumn blooming can easily be chosen from the florists' catalogues.

Some might imagine that a garden equipped entirely and solely with white flowers would be insipid. Truth to tell, a Maori Chief, who wandered in it one day this summer, begged almost pathetically that a few blue and red flowers should be admitted. "So mournful it looks," said he. But this is by no means the impression it made on us or would have made on most English people. White flowers with a background of green trees and blue sky are more lovely than any others, and they can better bear massing. The many differing shades of white, too, preclude anything like monotony. Besides, how exquisite are white flowers always, everywhere and on almost all occasions! White—the pure raiment of "the babe, the bride, the quiet dead"; white—the wondrous harmony of all colours; white—the light-colour of Sirius, our most glorious fixed star; white—the fair array of Christ's own "Lilies of the field." Does not white stand for truth, for purity, for candour and for innocence? No wonder we so dearly love white flowers.

A white garden should, if possible, have beautiful surroundings. A lofty note is struck, with which all else should be in unison. The garden of which I write stands on the left side of broad green lawns that face the house. On the right hand is a large space given up entirely to Roses. Roses of every hue are here, pink, crimson, cream, white, and yellow, climbing, tumbling, cascading or standing sturdily, each after its own fashion; Roses mixed red-and-white, too (the dear old-fashioned York and Lancasters), as well as Moss Roses, Scotch Roses, and every kind of Rose that can be dreamed of. Leaving the Rose garden and pacing through another garden that is brilliant with blue and yellow flowers, and passing by a sunk garden into which more of the pink and red Roses are overflowing, we come presently to a fair stretch

of woodland lying to the left. This was once a part of the park, but is now made into a sort of Paradise for all the flowers that are colourless.

So gently are we led up to this white Fairyland that it seems to steal upon us like magic. There are no barriers at the entrance; stiffness and formality are banished altogether:

"Where the guardian fence is wound,
So subtly are our eyes beguiled,
We see not nor expect a bound
No more than in some forest."

This is how a White Garden should be fashioned, to look as if Nature herself, in playful mood, had been allowing some poet's fantastic dreamings to come true.

Drifts of Foxgloves are the first inhabitants to greet us, hundreds and hundreds of them, a maze of white and green. Green-and-white shrubs and trees overshadow them, and here and there a woodland tree with Runic writings on the old gnarled stem. A little further on we come to winding walks and alleys, where white Pinks, white Roses, white Flame Flowers and white Lilies, with a thousand other white-flowering trees, shrubs and plants, are budding and blooming, all wild with joy to find themselves in such a happy place. We pass beneath bowers and arches of snowy, fragrant Roses. For one of the Rose wreaths apologies are made. The faintest tinge of pink has crept into it. "These little accidents will happen in the best regulated white gardens," remarks the Queen of the garden, smiling. "We pardon it, because it is so pretty."

It is surprising how many plants contrive to don the wedding garment. Forget-me-nots, for once, discard their frocks of blue and put on white ones; Violas, Campanulas and Canterbury Bells leave mauves and blues at home; they all come out in white. So do the Daisies—not a yellow petal among them; all the flowers wear angel's colours, and well white suits them. Is not white famous for suiting everybody?

One large bed is devoted entirely to white Heather, but it was not in bloom when we saw it. A good deal of thought is required to keep a white garden equally beautiful and equally white throughout the seasons. As in all other gardens, blossoms come and go. Perfection is never easy.

Right in the heart of the garden is a pool or fountain, wherein white Lilies are happily floating.

And the paths, what of them? No golden gravel here, but instead of that, white crushed marble. In moonlight, especially, the shining white paths have a ghostly beauty. At dusk, and in the blue darkness of a summer night, the white flowers themselves shine out as if with some unearthly inner radiance. Coloured flowers would be invisible, but the white flowers are shining and gleaming and their scent is more delicious than ever. "White Roses dream there, Syringa flowers, Phloxes and many hundreds of flowers, white, all white—softly they laugh and whisper together in my garden that is white." So wrote their mistress, in one of her novels: "There is nothing in all the world so beautiful as a white garden in moonlight, when day is dead and blackness is over the rest of the world. The nightingales have found it so and sing me heart-breaking melodies."

LIST OF WHITE FLOWERS.

Olearia Haastii, Weigela candida, Lupine, Eremurus himalaicus, a plant of great beauty which grows in the same soil that suits Lilium auratum; Cerastium, Japanese Anemone, Robinia semperflorens, a charming plant for lawn and shrubbery, flowering all the summer; Funkia, Lilac, Broom, Poppies, Gypsophila, Violas, Pinks, Carnations, Yucca, Dahlias, Stocks, Snapdragons, Phlox, Sweet William, Everlasting Pea, Sweet Pea, Corncockle, Mexican Orange Flower, Myrtle, Syringa, Spiræa, Nicotiana, Hydrangea paniculata, Lilies of many kinds, Crambe cordifolia, white Rhododendrons, Pæonies, Iris, Candytuft, Moss Roses, white Bleeding Hearts, Sweet Woodruff, Vinca, Arenaria balearica and other white Rock plants, Magnolias, double white Rockets, Dictamnus (Fraxinella) and many white-leaved Grasses. This list is by no means exhaustive, but gives some idea. Every gardener will add to the number of plants easily.

FRANCES A. BARDSWELL.

["The White Garden" was designed by its owner, "Irene Osgood," now Mrs. R. Harborough-Sherard, of Guilsborough Hall, Northampton, the well-known writer.]

SWEET PEA CHAT.

SEED-SOWING.—The harvest of the present season was so extremely late that the probabilities are that many growers have not yet got in their full supplies of seeds, much less have sown them all in the pots or boxes in frames. Although about the middle of October may usually be regarded as the ideal time, it is, like all other operations in gardening, a movable feast, and little is lost by postponement for a week or more either from choice or necessity. However, those who adopt autumn sowing should now push forward the work with all possible speed, so as to give the young plants every opportunity to make an excellent start before the really bad weather sets in.

CONDITION OF SEEDS.—It is much to be feared that amateurs of limited experience will find themselves somewhat disappointed by the appearance of the seeds of a few varieties. As a general rule the samples are splendid, but in several instances the seeds are spotted, and in others they are rather more wrinkled than one expects to see them. The grower need not worry over either of these points, for, provided that he manages matters properly, they will germinate as quickly and grow away as strongly as a perfect sample. The assumption that it is only after dry, hot seasons that it is essential that seeds shall be chipped prior to sowing to encourage quicker germination is not borne out with all varieties this year, for I have found it necessary to have recourse to this simple expedient with one or two black-seeded sorts. However, this is not an important point, for the simple reason that, if a grower finds that the seedlings do not come through as soon as he considers that they ought to do, he can easily dig out the seeds, and if, as is more than probable, they remain hard, he can chip and reset them, and all will certainly go well.

SOIL MOISTURE.—Notwithstanding the fact that the subject of watering has been alluded to on more than one occasion, it will not be amiss to refer to it again. None of the white-seeded varieties, or those that have mauve or lavender in their colouring, such as The Marquis, Rosie Adams, Mrs. Charles Mander and others, will stand as much moisture in the soil as the black-seeded sorts; as a matter of fact, those who would go as far as is humanly possible to absolutely ensure success, should sow all of these in a surfacing of sand above more than usually sandy compost; the sand will not hold the water to the same degree as the soil, and the danger of rotting will therefore be proportionately reduced. In all instances it is wise to err on the side of dryness rather than on that of wetness; it is true that this may mean a little longer time in germination, but fewer seeds will be lost through rot. If the soil is pleasantly moist, as it certainly ought to be, at the moment of use, and the pots are stood in frames, it will be some time before a supply of water will be needed, but the compost must not be allowed to become and remain as dry as dust. After germination water must be given regularly just in advance of dryness of the soil, so as to keep the plants in persistently steady progress at the roots, if not in the top growth.

SHORTNESS OF STOCKS.—Several weeks ago readers of THE GARDEN were warned that stocks of all the novelties would be extremely limited, and they were advised to place their orders early in order to prevent disappointment; but few of us realised how poor the harvest would be. There is probably not one modern waved standard variety that has yielded more than a third of the anticipated crop of seed, and in the case of at least half-a-dozen sterling novelties distribution will have to be deferred until next season, owing to almost complete failure. The loss to seed-growers is enormous, and it will be impossible for them to fully recoup themselves by the slight increase in prices which will be necessary to give all cultivators a reasonable chance of securing a share, the augmentation being secured by reducing the number of seeds in the packet and not by actually raising the cost. However, as long as

ROSES IN THE WHITE GARDEN.

the seeds germinate well, the enthusiastic grower will not worry much because he only has ten seeds in a packet of a variety that has previously given him twelve or perhaps fifteen at the same prime cost. SPENCER.

PÆONIA VEITCHII.

ALTHOUGH the Pæony family is represented in gardens by a number of beautiful species, to say nothing of the numerous and lovely forms of P. albiflora, an addition to their number is always welcome. This is especially so when the plant is elegant in growth and has attractive flowers. The latter, however, are not so large as in many of the older kinds, but they are produced freely on branching stems. P. Veitchii was introduced by Messrs. J. Veitch and Sons through their collector, Mr. Wilson. It comes from the uplands around Tatien-lu, on the frontiers of China and Tibet, at an elevation of from 8,000 feet to 11,000 feet, and is usually found on the margins of thickets. At first sight it somewhat resembles the well-known P. anomala, but it differs in having branching stems bearing several flowers, while P. anomala usually bears only one on each stem. It is also quite a month later in flowering, taller growing and with foliage having broader leaflets. Like most other Pæonias, it likes a rich, loamy soil and grows well in partial shade, and should make an excellent plant for the wild garden or open woodland. It makes a good bushy plant and grows freely in the open border, while some planted out in the wild garden are also doing well. Owing to the peculiar smell possessed by the plant it is known in China by a native name meaning "stinking Moutan." The purplish crimson flowers are borne on somewhat drooping stalks, which gives the plant a graceful appearance. W. IRVING.

EREMURUS ROBUSTUS ELWESIANUS.

THIS is the earliest to flower and the grandest in aspect of this fine family, and with its white form provides the most desirable couple of them all for garden effect. It also appears to be as vigorous in constitution as any, and should do well anywhere in the United Kingdom provided it can be given good drainage and a thorough ripening after flowering. I find in my light gravelly soil it does well if planted early in autumn and not too deeply, that is, 4 inches to 6 inches of soil only over the crown. I pour a potful of silver sand over the crown bud, and then gently lift it to allow the sand to sift under between the spoke-like roots. A mulch of manure in early spring certainly helps vigorous growth, but I find it is best to wait until the shoot is well through the ground before applying it, so that it may not force the plant in any way. I used to protect the leaves a little at first, but now find it better not to do so, as then they develop more slowly and better escape damage from late frosts. To those interested in this handsome genus, the monograph recently published by Mme. Iedtschenko should prove of great service.

The flowers of Eremuri are distinctly protandrous. The anther cells burst soon after the opening of each flower, and the orange pollen on these makes a distinct zone of colour around the spike. At this period of the individual flower's life the pistil is bent downwards at an obtuse angle, so as to be out of the way of pollen from its own flower, and not until the pollen is shed does it lengthen and stand out straight ready to receive the visiting bee laden with pollen from another flower. I have noticed that the bees generally work upwards on the spike, so the lower and older flowers, being first visited, are usually fertilised with pollen from another spike and cross-fertilisation thus effected. E. A. BOWLES.

Waltham Cross.

THE NEW ROSE CLAUDIUS. (*Natural size.*)

(*See page 543.*)

COLOURED PLATE.

PLATE 1386.

ROSE AMERICAN PILLAR.

ONE of the plants that attracted attention at the flower show in the Temple Gardens this year was the Rose American Pillar. It is a single variety with rich rose-coloured flowers, as the plate shows, and this beautiful shade is set off by golden stamens in the centre. American Pillar will be much grown in the future and rank among the most popular of climbing Roses; it is strong in growth, free-flowering and in all ways a charming addition to the already large list of climbing varieties. Messrs. Cannell and Sons of Swanley have exhibited many lovely flowers, but few more so than this, and we are indebted to them for the flowers from which the accompanying coloured plate was prepared.

THE NEW
ROSE AMERICAN PILLAR.

THE ROSE GARDEN.

NOTES ON NEWER ROSES.—VII.

HERBERT THAS.

(Continued from page 532.)

JOHANNA HEBUS (Dr. Müller, 1909).—I have yet to come across a bad Rose sent out by this amateur, and in Johanna Hebus we have a real good one. I have grown it now for three or four years, and have recommended it freely to trade and amateur alike, and everyone has been pleased with it. Its distinguishing feature is its scent, that stands by itself. I know no other Rose scent like it. It is really delicately fragrant, reminiscent of a fruit of some kind, possibly Nectarine or Peach, or a combination of the two. The flowers are large, and in colour deep rose pink of a cerise shade that is very bright, and contrasts well with the bronzy red foliage. The plant grows freely up to 8 feet and is an ideal pillar Rose, flowering right through the autumn. Those who do not know this Rose are strongly advised to try it. To get back to the newer Roses within the meaning of the term.

John Orf (Alex. Dickson and Sons, 1908).—The raisers were unusually modest in their description of this Rose; at least, I think so. They make no claim on its behalf as an exhibition variety, and call it a valuable garden Rose. It is that, but I think it will be more grown by the exhibitor than they seem to anticipate. It is a great flower, yet not coarse; colour, a good carmine, deep rather than light, with the familiar yellow patch at the bottom of the petals. For such a recent introduction it has been unusually freely exhibited, and I think it has a future on the exhibition boards. It is scented, but not strongly so—what the catalogues term delicately perfumed. It is a vigorous grower and altogether will prove, I think, a useful Rose; one of the surprises of the season, I may term it, so far as I am personally concerned.

Joseph Hill (Pernet-Ducher, 1909).—I am not sure whether the raiser sent this Rose out with the prefix Monsieur or not. If he did, and I am inclined to think it was so, may I be permitted to suggest he made a mistake in so doing, as Joseph Hill is an American and a member of the firm that has given us Richmond, Mrs. E. G. Hill and General McArthur, to mention only a few of the Roses of their introduction, and, therefore, Monsieur, although correct enough in France, is neither necessary nor correct here. Be all this as it may, Joseph Hill, in my opinion, is one of the best Continental Roses of recent introduction. A good bedder and a useful Rose for the exhibitor; the fine deep colour of its flowers and the general fine mannish of the plant, with its deep bronzy foliage and good habit, render it one of the desirable Roses.

Joseph Lowe (Lowe, 1907).—This Rose, sent out by Messrs. Mount, is synonymous with Lady Faire, and as Lady Faire it obtained recognition from the National Rose Society. It was awarded a card of commendation. I therefore will make what remarks I have to say about it under that name.

Konigin Carola (Turke, 1908).—A sport or seedling, undoubtedly, of Caroline Testout which Rose it resembles in colour, except, possibly, it has rather a more silvery edge to the petal. It is a beautiful Rose, of very fine shape, that comes rather more to the much-desired point than Caroline Testout, and in that respect it may be said to be an advance on that variety. The flowers, especially the older blooms develop a split—that is, most of them do—but it will be a very useful variety to the exhibitor, although I should not advise him to show a Caroline Testout in the same box, as he will be courting trouble in the shape of disqualification for duplicates, as the points of difference are very slight. It, however, does come more pointed than Caroline Testout, and therefore should be very useful to the exhibitor. It is also an excellent garden Rose. Altogether it is a Rose I can recommend to anyone.

Lady Alice Stanley (S. McGredy and Son, 1909).—This is one of the new Portadown Roses that will add to the reputation already gained by Countess of Cromer and other Roses. I have been much pleased with its behaviour in my garden here this year. It is undoubtedly a good Rose. The flowers are very large and bright. They owe their distinctness to their scheme of colour, which reverses the usual lines, namely, the deeper colour on the inside of the petal and the lighter colour outside. Lady Alice Stanley, on the contrary, has the deeper colour on the outside of the petal and the lighter colour inside, and in this respect resembles Grand Duc Adolph de Luxembourg, Mrs. E. G. Hill and the old Marquise de Vivens. The actual colouring is deep coral or rose pink outside, inside silvery pink flesh, really a pale flesh, but the outside colour shows through. I have exhibited it on more than one occasion this year; the flowers generally come good and it does not seem to develop a split, that bête noire of exhibitors. It is a good grower, freer from mildew than the majority of Irish Roses, and, I think, a Rose that has come to stay. It was awarded the gold medal of the National Rose Society at the autumn show last year. There was a very fine box of it exhibited at Luton that deserved to have been in the prize money in a very strong class for the best twelve pink Roses, and they were fighting against Dean Hole, Lady Ashtown and Mrs. Edward Mawley and were not disgraced, so it cannot be otherwise than useful to the exhibitor. It is one of the easily grown Roses, which is another point in its favour. It is a pleasure to write "Strongly recommended."

Lady Calmouth (Gaillot, 1909). I cannot say the same for this Rose, which I am discarding from my garden. The season, I know, has been against it and the flowers have refused to open, but at its best I do not think it is wanted. In colour nearly white, with just a suggestion of pink, the Rose is large, full of petals, and a robust grower rather than vigorous. Nothing but an exhibitor's Rose, and not often that. Is it worth keeping? is the question I asked myself, and the answer is written above.

Lady Rosmore (Alex. Dickson and Sons, 1906).—Raised by Dr. Campbell Hall of Monaghan, this Rose is improving with age, and I have seen more than one fine plant of it. It is an excellent bedding Rose of dwarf growth, colour not unlike Hugh Dickson, but with a little more claret in it, that one could plant where the latter Rose would be out of place by reason of its growth. The flowers are of good size for a bedding Rose and open freely. A far more useful Rose than Etoile de France, and one that will be grown long after that Rose is forgotten.

Purley. H. E. MOLYNEUX.

(To be continued.)

EREMURUS ROBUSTUS ELWESIANUS IN MR. BOWLES'S GARDEN.

HYBRID TEA ROSE CLAUDIUS.

THIS is a hybrid of much beauty, and one of its good qualities is fragrance, which is the more welcome when so many sorts are without it. Claudius is a hybrid that should be a Rose for the summer and autumn, as the award of merit of the Royal Horticultural Society was given to it on October 12 last, when the flowers were fresh and the rose colour undimmed. We saw it also earlier in the year. As will be seen by the illustration on page 542, the blooms are full and the petals rather broad. It was shown by Messrs. H. R. Cant and Sons of Colchester.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Tulips may be planted during the present week if the whole of the stock is not already put in. In a medium heavy loam and in sandy soil the bulbs do remarkably well if a small quantity of coarse sand be sprinkled around each bulb; but where clayey soil obtains it would be wise on the part of the

1.—BUSH ROSE, SHOWING HOW THE ROOTS SHOULD BE SPREAD OUT PREVIOUS TO PLANTING. THE ARROW INDICATES THE JUNCTION OF STOCK AND SCION, TO WHICH DEPTH THE BUSH SHOULD BE PLANTED.

cultivator if he added sand or some gritty material to the whole of the soil when digging and preparing the latter for the bulbs. The fading stems and leaves of Hollyhocks must now be removed, but the sound leaves—those that are still green—should not be cut off. These plants are quite hardy, and lifting and storing the roots in frames only weakens them. All rubbish found near the plants must be taken away and a few ashes placed close up to the collars of the plants as a protection against slugs and frosts during the winter; this is all that need be done. A final cleaning of the herbaceous borders must now be given, final only as regards the cutting down of the faded flower-stems and leaves of the summer-flowering subjects; hoeing and soil cleaning will be necessary frequently through the winter months. Pentstemon cuttings in cool frames and under cloches must be examined, and where they have been lifted by earthworms make them firm in the soil again; also remove decaying leaves and any cuttings that have rotted off. The surface soil only may be lightly loosened with the aid of a small pointed stick.

Vegetable Garden.—Autumn Giant and other Cauliflowers which are now developing their flowers or heads should be closely watched and protected from early frosts by the following method, namely, take out a large spadeful of soil close to the roots on the north side of the plant, press down the plant towards the north, and then place the spadeful of soil on the stem and roots on the south side. Thus the sun will not reach the heads, and they will remain white and pure for many days. Only the most forward specimens must be treated in this way. Put on fresh lining material to frames and hot-beds in which Cucumbers are being grown with the aid of hot-water pipes, as the heating material will prove economical as regards fuel. Preparations for forcing Rhubarb and Seakale must now be made; the roots may be covered with pots or boxes and surrounded by littery manure and leaves, or lifted and forced in heated sheds or under the stages in glass structures. Jerusalem Artichokes must now be lifted, graded and stored in frost-proof sheds, and then have the soil deeply trenched forthwith. Heavy soils which are intended to be cropped with Potatoes next spring should be manured now with rich, well-rotted manure; but light or sandy soils must not be manured before next spring.

Fruit Garden.—In low-lying districts the trunks and branches of fruit trees, including the Currant and the Gooseberry, get badly covered with lichen, which, in turn, affords a special hiding-place for insects. The present is a good time for dressing such trees with the various compounds advertised and sold by nurserymen for the purpose. All such dressings must be applied according to the instructions given with the compounds, but I would strongly advise amateurs to be extra careful and not touch any buds with the liquid. If there are any late Apples still growing on the trees, they must be gathered the first opportunity when the trees are dry. Currant and Gooseberry bushes must also be pruned now; the new growth will be stronger than would be the case if the pruning is left until the spring.

Greenhouse and Frames.—It is not advisable to maintain a set temperature in the greenhouse at this season. Aim to keep out excessive moisture and frost. In the daytime, independent of sun-heat. let the temperature range from 50° to 60°; at night from 50° to 55°. During severe frost a drop of 5° may be allowed. The watering of Azaleas in greenhouses and frames is a very important matter. Never allow the soil in the pots to get dry. Fill up the pots each time water is given. Camellias in pots must be watered with equal care. Sponge the leaves of the latter and remove every decaying leaf from Cinerarias, Primulas and Calceolarias. Place Bouvardias in the warmest part of the greenhouse. Weak doses of manure-water will be beneficial for these plants now. B.

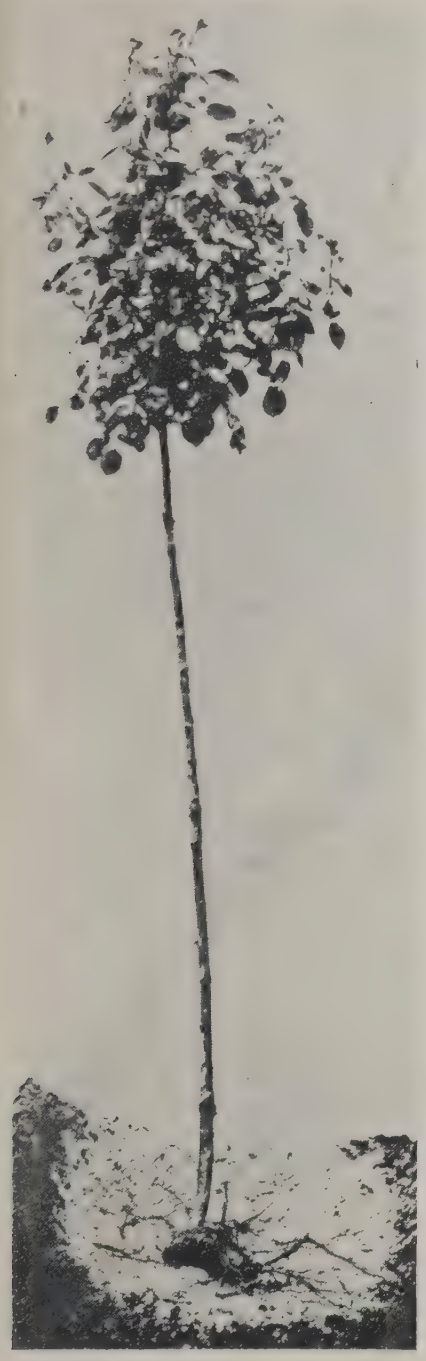
HOW TO PLANT ROSES.

INEXPERIENCED amateur gardeners frequently ask for information about planting Roses, and this request is more often made at this season than at any other time. The spring is a season in which many novices begin operations in regard to planting their newly purchased Roses, and many inexperienced growers are at a loss to understand why the plants have not done well or come up to expectations. Planting may be done either in the autumn or spring, and in certain conditions or circumstances the Roses will do equally well planted at either time; but, generally speaking, autumn planting is to be preferred. Specialists in the cultivation of the Rose are very strong in their opinion that Roses should be planted any time between the end of October and the end of November, early planting, they contend, invariably yielding better results in every way. If planted in the autumn, the ground is warm and root-action begins at once, and the roots get hold of the soil and the Roses are better able to withstand severe winter weather in consequence. When planted late in the year, say, in December, the ground is cold and no root-growth is made, and in the event of severe weather ensuing there is a great chance of the plants dying. Roses planted in the spring soon become established; Nature then awaking to new life and energy, top and root growth begin almost simultaneously. Spring planting should be done early, however, and when the soil is in a suitable condition and free from frost it may begin in late February and continue throughout March. Planting should not be done when the ground is wet and pasty.

Ground intended for Rose-growing should be deeply dug and heavily manured; in fact, those who wish the best success to attend their efforts would be well advised to trench the ground quite two spades deep, adding to the bottom spit a heavy dressing of partially decayed manure. Soil of a clayey nature is best for

2.—THE SAME BUSH ROSE PROPERLY PLANTED.

Roses, while that of a gravelly or sandy kind is, without a doubt, the worst. The aim of the grower should be to lighten the over-heavy soil and render more adhesive the light soil. Cow-manure added freely to the last-mentioned soil and placed at a depth of about 2 feet, and also incorporating well-rotted cow-manure to the soil as it is dug over, will render this quite fertile and far more satisfactory for Roses.



3.—HOLE TAKEN OUT 6 INCHES DEEP FOR PLANTING A STANDARD ROSE. FIRST INSERT A STAKE IN POSITION AND SECURE THE TREE TO IT BEFORE PLANTING. SPREAD OUT THE ROOTS AS SHOWN IN THIS ILLUSTRATION.

Readers who are beginners should remember that the bushes or standards may reach them after having travelled a considerable distance, in consequence of which they will need to be dealt with promptly. Unpack them without delay and immerse the roots in a vessel of water, allowing them to remain in this condition for an hour or two. Should the ground be too wet to plant forthwith, the Roses must be laid in a shallow trench and the roots covered with soil temporarily. Should the weather be warm and sunny when the plants arrive, and the actual planting be inconvenient for a time, after laying in the plants shade them until they can be planted.

First of all, make a rough plan of how the Roses are to be planted, and insert labels with the names of the varieties written thereon in their respective positions. Dwarf Roses should be planted 18 inches to 2 feet apart, and standard and half-standards about 2 feet 6 inches asunder. To teach the beginner how to plant his dwarf Roses I have lifted a specimen bush, and in Fig. 1 have indicated to what depth Roses of this character should be planted. Dwarf Roses should be planted deep enough to cover the junction between the stock and the scion. Fig. 2 represents the same dwarf Rose planted in position. Here it will be observed the junction of stock and scion is just embedded in the soil. See that the holes are sufficiently wide to spread out the roots to their full length. Jagged roots should be cut so that the cut part rests on the soil, as from this part roots will be made. It is an excellent plan when planting Roses to have a sufficient quantity of sifted soil to place round about the roots. The finer particles of soil work in so well among the roots that planting is more satisfactorily done when this rule is observed. About a peck of sifted soil should be used to each Rose, and that the work should be done thoroughly and well a second person should hold the plant in position, slightly shaking the tree to settle the soil as the first person fills in.

In Fig. 3 is shown a hole taken out for planting a standard Rose. The hole is about 6 inches deep, and an inspection of the roots will show how they are spread out. Standard Roses should have a stake placed in the hole in position prior to the planting, to which the tree should be securely tied. The sifted compost should be worked among the roots as was done with the dwarf Roses, and after filling in the garden soil and treading this to make it firm, the surface soil should be finished off neatly, as represented in Fig. 4. Here we have the tree satisfactorily planted with the stake in position and securely tied. The trees should be watered in as the work proceeds, and finally a covering of partially rotted manure or litter of some description should be placed on the surface soil round about the base of the tree. This mulching assists to keep the soil moist. D. B. C.

STORING DAHLIA ROOTS.

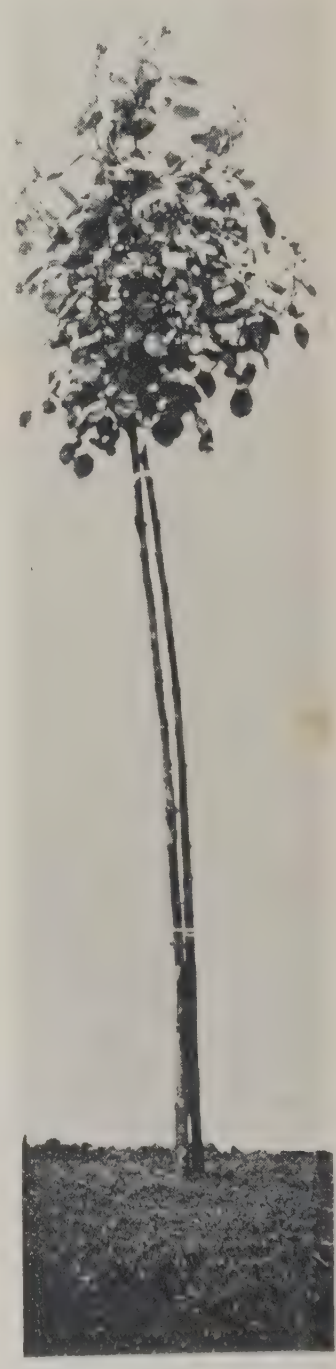
AMATEUR growers of Dahlias are often troubled in safely wintering them. Plants are yet (end of October) blooming profusely, and no one seems anxious to cut them down. The abundant rains have made the plants rather sappy and, indeed, unusually luxuriant, while the absence of October frosts so far allows them a long, free existence. But when a frost does come, no doubt the plants will suffer greatly because so sappy; hence the moment so injured they should be cut down to within 6 inches of the soil, and if the weather is not then dry it is best to put a mound of soil over each stem. But when there is a dry day have the roots lifted and, having shaken out the soil, let them lie on their sides both to dry and to drain any moisture which may have accumulated in the hollow stems. If the floor of a cellar or outhouse be available, set them close together on that, cover all the tubers with fine dry ashes or soil, and only further protect them with litter when frosts are severe. If a floor cannot be had, then set the roots close together in stout shallow boxes, and fill in round them with some fine dry soil. A. D.

THE TOWN GARDEN.

FRAMES.—A garden frame does not take up much room, but it is one of the most useful of all garden appliances. Amateurs who now possess one know well how valuable it is, and those who do not possess a frame realise fully the want of it, especially where there are a lot of favourite plants to be kept through the winter months. Many kinds are regarded as quite hardy and are left exposed to the elements; but, although they survive, they are often sadly crippled. Now, if the plants were stored in a cool frame which would afford them a lot of protection in the bad weather, much finer specimens would be available for use during the following year. Then there are various kinds of bulbs that may be grown in the frame up to a certain stage of development, after which the pots containing them may be transferred to the dwelling-room windows or the glass entrance-porch. I know of one amateur who had a most attractive glass porch throughout the year. All his plants had to be raised under cool conditions, but he selected the most suitable for the purpose. Disappointment will surely follow any attempt to grow very tender subjects in cold frames in the winter-time. Even if partial successes were attained there would not be as much pleasure derived from them as from successes gained by growing hardier subjects. Roman Hyacinths do not require a lot of heat, and when the early bulbs are taken from the ashes under which they have been plunged, they will do remarkably well in a cool frame until the flower-spikes are well developed. Narcissus bulbs may be treated in the same way; Tulips and named Hyacinths may also be started in the frame, but removed to the windows in the house earlier than the Roman Hyacinths and Narcissus. Spiræa and Dielytra roots should be lifted now and potted in a light compost, then stored in the frame. So treated they will commence to grow about a month before those clumps left in the open border, and so considerably prolong the floral display in this direction. Auriculas, Calceolarias and even the popular Marguerite Daisies may all be wintered in the cool frame, provided some mats or other suitable materiai be given for protection against severe frosts.

NEGLECTED GARDENS.—At no season of the year are gardens more neglected than in the autumn. I visited an amateur the other day, and before showing me round his beautiful garden—in a town—apologised for its wild, neglected state. I know that there is a constant dropping of leaves and other matter from shrubs and trees at this season, and that it is very difficult to maintain a tidy, neat appearance; but a little management will easily overcome the difficulty. I can thoroughly enjoy a ramble round a garden in the autumn-time, even when it does not contain a single blossom. The lovely tints in the leaves and the bark of the stems have a beauty all their own. Furthermore, there are the strong crowns of many kinds of herbaceous plants that, though dormant now, give such promise of future beauty in the flowers they produce. Truly there is never any lack of interest in the features of the garden all the year round.

DIVISION FENCES.—In many gardens in towns there is a division fence shutting out from view the vegetable or fruit quarter. Sometimes these fences are constructed so as to be highly ornamental in an artistic way. One of the worst kinds of division hedges is the Privet hedge. In itself it is very beautiful, but the roots of the plants permeate the soil in the borders on both sides to such a large extent, and so rob the plants in the beds of such a great amount of moisture and nourishment, that it is unwise to plant Privet. One of the most beautiful of division fences is secured by constructing a rustic screen, and then planting Roses and other suitable climbing plants so that their branches can be trained over the erection. Here we have at once a screen that will afford a great amount of pleasure and interest for the owner. In putting up such erections avoid extreme lightness. Very small upright posts and weakly cross pieces are unsuitable. Such screens look well for about two years; then they commence to decay just when the plants are nicely covering them, and so a lot of trouble is entailed in doing the necessary repairs, as often the plants are injured in the process. AVON.



4. THE SAME STANDARD ROSE AS SHOWN IN FIG. 3 FIRMLY PLANTED AND STAKED AND SECURELY TIED. TO COMPLETE THE PLANTING PLACE A LAYER OF LITTERY MANURE ON THE SURFACE OF THE SOIL.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUIT DEPARTMENT.

PEACH TREES UNDER GLASS.—Trees intended to be started next month should now be pruned and dressed and the house put in order in readiness to be closed when the time arrives. If the trees are fairly free from red spider and other insects, less cleansing will be necessary; but where scale exists, after the trees have been pruned and the roof and woodwork thoroughly washed with a mixture of soft soap or soapsuds, carefully sponge the young wood with a little Gishurst Compound, taking care not to use this too strong, or it will injure the buds, which at this season are in a forward state. Scrub well the old wood with a much stronger solution, to which add a handful of sulphur. Prune carefully, removing pieces that will not be wanted for bearing fruit, a good, fruitful and even-balanced tree being the aim. After the trees have been thoroughly cleansed, secure the main branches to the trellis at equal distances; then fill in with the young shoots and wood, and leave ample room for the wood to swell in the trees. After finishing the trees, attention should be given to the roots and border. I usually remove 2 inches of the surface and then give the roots a good soaking with water overnight, if required, following this with a top-dressing of suitable soil containing ample lime and wood-ashes, after which no further watering will be required for some time.

KITCHEN GARDEN.

Cucumbers.—With less sunshine and darker days the growths are apt to become weak. Take care not to overcrowd with wood and foliage, stop the shoots when required for the production of more fruits, and do not at any time allow the Cucumbers to hang on the plants after they are large enough to cut. Keep the foliage clean and free from red spider, syringing on favourable occasions with tepid water. Repeat the top-dressing at intervals, using a rather sandy loam with a mixture of leaf-mould, or sweet, decayed Mushroom manure, and at the same temperature as the house, allowing 70° by night, excepting in very severe weather, when the glass may be allowed to fall to 65°, and raising the temperature 10° by day when there is sun.

Tomatoes.—To obtain strong, healthy plants for next year's early supply, seed of a good, useful, free-cropping variety may now be sown. Sow the seed in well-drained 4½-inch pots, or small pans, and do not overwater. As soon as the plants are nicely up keep them in a warm position near the glass. Prick them off early, and when large enough pot them singly in 3-inch pots, using a light sandy soil, and water very sparingly for some time.

PLANTS UNDER GLASS.

Shrubs for Forcing which have been plunged in coal-ashes in the reserve ground will need attention; those which are well studded with flower-buds and deserving of room, to be forced, should be picked out and placed together for convenience until they are required for placing in warmth. Ghent Azaleas are extremely useful for supplying an abundance of bloom at a time when flowers are none too plentiful.

Malmaison Carnations which were layered rather late in frames will now be growing freely; let them be neatly severed from the parent and pot them singly in pots of a suitable size, using a sweet, sandy loam and ample grit. Stand the pots in a light house near the glass or in frames, being careful with ventilation and watering.

H. MARKHAM.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

HARDY FRUIT DEPARTMENT.

PLANTING.—Where possible this should be done in November, while the soil retains some of the summer's warmth. Should the ground be unready for planting before winter, the trees are better ordered, and when received be laid in lines in such a manner that litter may be placed over the roots if very severe frost intervenes. It is somewhat difficult to select varieties of fruits that will prove satisfactory in greatly diverse soils and situations, but the following list will be found generally satisfactory.

Dessert Apples.—Beauty of Bath, Devonshire Quarrenden, Worcester Pearmain, James Grieve, King of Pippins, Adam's Pearmain, Mannington Pearmain, Allington Pippin, Fearn's Pippin and Scarlet Nonpareil.

Culinary Apples.—Keswick Codlin, Lord Suffield, Stirling Castle, The Queen, Loddington, Warner's King, Duchess of Oldenburg, Lane's Prince Albert, Bramley's Seedling and Newton Wonder. These succeed in any form of training, and for gardens proper are best grafted upon the English Paradise stock, with the exception perhaps of Stirling Castle and Duchess of Oldenburg, which generally bear so freely that the greater vigour of the Crab stock is more suitable.

Plums.—Good dessert varieties are Lawson's Golden Gage, Oullin's Gage, Denniston's Superb, Jefferson, Kirke's and Coe's Golden Drop. To these might be added Victoria, which is the best all-round Plum in cultivation. For culinary use The Czar, Early Prolific, Victoria, Pond's Seedling, Belgian Purple, Monarch, and Ickworth Imperatrice for very late use. The Czar, Early Prolific and Victoria succeed well in bush or standard form; but the others named require the protection of a wall.

Pears.—Beurré Giffard, Jargonelle, Williams' Bon Chrétien, Louise Bonne of Jersey, Souvenir du Congrès, Marguerite Marillat, Beurré Diel, Marie Louise, Doyenné du Comice, Fondante de Thirriot, Winter Nelis and Easter Beurré are reliable and provide fruit for several months. The first four named, together with Hessle, succeed in good situations in bush, pyramid or standard forms; but all the others must be grown as espaliers or against walls in the North.

Gooseberries.—Whitesmith, Hedgehog, Langley Gage, Langley Beauty, Whinham's Industry and Warrington are all good for general use; the last-named, all points considered, is probably the best in cultivation.

Currants.—Raby Castle (red), White Versailles, Carter's Champion and Boskoop Giant (black) are the best of several kinds that closely resemble each other. The last has the reputation of being proof against the big-bud trouble.

Raspberries.—For crop and size of fruit Superlative is well ahead, Baumforth's Seedling, Carter's Prolific and Yellow Antwerp being distinct and good among older sorts. The Loganberry, closely allied to these, should be given a place wherever its rambling growths can be accommodated.

FLOWER GARDEN.

Bedding Plants.—As the beds and borders are cleared of summer occupants, manuring and digging may follow and the planting of Myosotis, Wallflowers, Primroses, Daisies and Violas be carried out. Bulbs in considerable variety are often used with good effect when in bloom, and the sooner these are planted the better they will be.

Shrubs.—Many varieties of dwarf evergreen and variegated plants are excellent for toning down an excess of colour in the spring garden. Cupressus in variety, Cryptomeria elegans nana, Retinospora plumosa, R. albo-picta, R. argentea, R. aurea Juniperus communis compressa, J. chinensis aurea and Abies excelsa pumila are all suitable.

JAMES DAY.
(Gardener to Sir Malcolm M'Eacharn.)
Galloway House, Garlieston, Wigtownshire.

NEW PLANTS.

CYPRIPEDIUM ELATIOR REX.—This is a beautiful Cypripedium, with the dorsal sepal white, tinged and blotched with purple, while the pouch and petals are a brownish tint. It was raised from C. leeanum and C. Baron Schroëder, and the progeny has retained the good shape of the former and inherited to a great extent the fine markings of the latter parent. It is interesting to note that five species, viz., spicerianum, insigne, villosum, barbatum and fairieanum, are represented in this pretty plant. Shown by Messrs. J. Veitch and Sons, Limited. Award of merit.

Cypripedium Beacon magnicum.—This is a very beautiful variety, the dorsal sepal being very clear and distinct. The base is pale green heavily dotted with circular brown dots, a broad band of pure white forming the margin. The petals and labellum much resemble those of a pale-coloured insigne. Shown by Lieutenant-Colonel Holford, C.I.E., C.V.O., Westonbirt, Tetbury, Gloucester. Award of merit.

Chrysanthemum Mrs. R. Luxford.—A very handsome exhibition variety of a pleasing bronze shade that is destined, we think, for much popularity. The habit is dwarf and handsome, and flower-heads are freely produced.

Chrysanthemum Altrincham Yellow.—A very pleasing single-flowered variety of a clear butter yellow hue. The blossoms are of large size and produced in considerable profusion. These two Chrysanthemums were exhibited by Messrs. W. Wells and Co., Merstham, and each received an award of merit.

Chrysanthemum Mrs. Thornton.—A large-flowered Japanese of the drooping type, the colour creamy white, the older florets passing off to a pink shade. The flower-heads are of huge proportions and the florets of great length. Shown by Mr. H. Perkins, Henley-on-Thames. Award of merit.

Aster hybrida Bianca.—A white-flowered variety of considerable freedom, the horizontally disposed branches being wreathed with blossoms. Shown by the Hon. Vicary Gibbs, Aldenham House, Elstree (gardener, Mr. E. Beckett). Award of merit.

Carnation May Day.—This, so far as we remember, is the first of the true salmon pink shade, so characteristic of the old Miss Joliffe, yet sent to us from America, and we believe the variety will be accorded a very hearty welcome on this side of the Atlantic. The colour is of a deeper tone than the old-time favourite and more uniform at the edges of the petals. Moreover, the flower is of good form and excellent petal substance, and if not of the largest size, has the many points of merit which render such flowers of great utility. The stems are good and the calyx is of a non-splitting character. Exhibited by Messrs. J. Peed, Norwood; R. H. Bath, Limited, Wisbech; and Stuart Low and Co., Enfield. Award of merit.

Columnea magnifica.—A singularly bright and effective greenhouse flowering plant of sub-shrubby habit belonging to the Gesneraceæ. The exhibited plant was about 1½ feet high, bearing numbers of tubular flowers of scarlet orange hue, which pass to a yellowish tone in the interior of the corolla tube. The ovate-acuminate leaves are somewhat thick to the touch and densely pubescent. The flowers possess the merit of lasting for some weeks in perfection. Exhibited by Sir Trevor Lawrence, Bart., Dorking. Award of merit.

All the above were shown before the Royal Horticultural Society on the 26th ult., when the awards were made.

THE EDITOR'S TABLE.

A CURIOUS SWEET WILLIAM.

Herewith I send a box containing one stalk of a Sweet William plant, which must be a

curiosity, resulting from the present abnormal season. You will notice that in the centre of the truss the seeds have all germinated and present the appearance of a bed of green Cress, while three of the outer florets are in bloom and others in bud. I cut it this morning (October 21) from a clump of Sweet Williams, nearly all similar as far as the germination of the seeds in their pods, but in the others only buds unopened are yet to be seen. I feel sure you will be interested in this curiosity. You will notice the stalk is perfectly green, and the leaves on it are also green, which is in itself, I think, most unusual. I have seen seeds on dead stalks germinate on various plants, but never on a green and flourishing stalk. — Samuel Lowe, *Meadowbank, Hadley Wood, Middlesex.* [A most interesting abnormal development.—Ed.]

Blue Primroses from Scotland.

Dr. McWatt of Morelands, Duns, N.B., sends us a very beautiful collection of Blue Primroses and Polyanthuses, the colour of these being remarkably good. In addition to the blue flowers, their reddish stems are also most attractive, and the contribution was a most acceptable one at this season. Dr. McWatt also included several of his beautiful Delphinium seedlings, to which we have already drawn attention.

Violets Mrs. J. J. Astor and Lady Hume Campbell.

Mr. Lawless, gardener to Sir Walter Smythe, Bart., Acton Burnell, Shrewsbury, sends perfect flowers of these Violets. Our correspondent writes: "The plants have been grown on quite open ground and lifted into frames for the winter. They are from layers taken in March, and the plants measure 10 inches to 15 inches through; they are full of buds."

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* The Garden *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* Editor of The Garden, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* Publisher. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Daffodils in moss fibre (*Agnes Randolph*).—The complete success of these bulbous plants in moss fibre depends upon sound bulbs, and chiefly a sufficient supply of moisture, with light, after the early period of preparatory darkness is passed. That you had "very fine" flowers points to one thing, viz., that the bulbs were of good quality; hence all else turns upon cultural errors. The "weak, floppy and curly foliage with yellow edges" may be due to too great a degree of darkness during the growing season, and to too much or too little moisture at the roots. These things may be brought about, also, by a too early attempt to get the plants into bloom, and the variety, Empress White, one of the best of the bicolor section of Daffodils for general use, is not suited for early work when grown in fibre indoors. Doubtless not a little of your non-success is due to bringing in the bulbs too early into the sitting-room, and a prolonged period in these conditions would not conduce to the best results. The weak stalks point very strongly to this. The same bulbs given a few weeks in a darkened frame, or even a cool greenhouse, would have been greatly benefited thereby because of the moister conditions prevailing, while the dry, arid conditions of a room, and particularly a room in which gas was used, would militate against success. We think, therefore, that a too long season in the rooms is very largely responsible for the condition to which we refer. As we hope to deal with this subject more fully in an article in a coming issue, we refer you to that for more complete details. Meanwhile you could obtain bulbs and plant them in readiness.

Treatment of Pampas Grass after flowering (*Enquirer*).—As soon as the plumes become unsightly cut them off; then leave the plant until the middle or end of March, at which time as many as possible of the old leaves may be cut away. If the ground about the stool appears very dry, give a good watering, and afterwards a good top-dressing of cow-manure. Whether dry or not a good top-dressing should be given. If you wish to transplant it, do not do the work until there are signs of active growth, say, mid-April. To increase the stock, cut pieces off the parent plant in April, pot them up, and place them in a warm and close greenhouse until rooted. Do not be tempted to cut shabby leaves off during winter, neither must you attempt transplanting before the time mentioned.

Diseased Pansies (*T. R. F.*).—The plants are attacked by the fungus Puccinia violæ. Try what spraying with a rose red solution of potassium permanganate will do. Remove and destroy with fire all badly diseased plants.

Evergreen creeper (*H. P. B.*).—For the purpose you name there is no plant of such quick growth as the Ivy, and no better kind than that known as dentata. It is a handsome-leaved kind withal. Most climbers of free growth are deciduous.

Treatment of Arum Dracunculus (*H. C.*). Arum Dracunculus is a hardy species and should be planted in well-drained loamy soil in a sunny border. If in an enclosed space the unpleasant odour of the flower is far too pronounced. This species grows about 3 feet high, has prettily divided leaves and a brown flower-spathe.

Ampelopsis leaves (*W., Sheffield*).—The leaves of the Ampelopsis sent showed no signs of disease or insects, and the shrivelling appears to be due to drought or starvation. It is impossible to say definitely without knowing more the conditions under which the plant is growing. A good mulching and watering towards the end of the summer would probably stop the leaves from shrivelling.

Dahlias (*M. C. Middleton*).—"The Dahlia: Its History and Cultivation," 1s. 6d., Macmillan and Co., St. Martin's Street, London, will give you much information. The chief cultural item concerning the Gladiolus just now is to lift and dry them when the frost has cut down the foliage. Subsequently store in a place secure from frost, as, for example, a cellar or similar place. At a more seasonable moment we may give an article dealing with these things in fuller detail. Meanwhile we shall be pleased to answer any questions you desire to submit.

Dahlias with injured leaves (*Mauve Poppy*). The very small pieces of leaf and flower-bud sent are far too small to enable any practical conclusion to be arrived at as to the cause of the injury evidenced. To enable a proper judgment to be obtained, the portions sent should be shoots 9 inches long carrying leaves and buds, packed in soft, damp moss in a suitable box. The small pieces sent, having no such care shown in the packing and being of a very soft, tender nature, were so much bruised and blackened that it is difficult to tell whether the injury is due to ill-usage in the post or to other causes. Obviously the plants are doing badly, as the leaves are very small. Under what conditions are they grown? Is the position a cold one and the soil stiff and wet, or, if light, is it very poor. Generally Dahlias, although flowering late, are yet strong, robust and healthy. No doubt the leaves have been partially eaten by earwigs. These should be trapped in the usual way by putting small flower-pots, each containing a small piece of moss, upside down on the top of stakes, then examining these traps each morning and destroying the insects.

ROSE GARDEN.

Roses for very light soil (*A Reader*).—The Tea-scented, Hybrid Teas and Monthly Roses would really thrive best in your soil, and, if possible, we advise you to obtain them on their own roots. There may be a difficulty in doing so, but the fine, hair-like roots the plants produce are just suited for a light soil. We should not advise you to plant standards. If unable to obtain own-root plants, then procure those on Briar. You must take care to well mulch the beds in summer with some well-rotted manure. This is of great assistance in preserving the moisture in the soil, which Roses love; and if you scatter on, previous to mulching, a little bone-meal you will find the plants appreciate this immensely. The following would be a very nice selection, and they are mostly fragrant sorts: Mme. Abel Chatenay, La France, Lady Battersea, Augustine Guinoisseau, General Macarthur, Viscountess Folkestone, Laurent Carle, Gustave Grunerwald, Mme. Jules Grolez, Anna Olivier, Mme. Hoste, Comtesse du Cayla, Aurore, Irene Watts and Mme. Laurette Messimy. A good, fast-growing crimson Rose for the south wall would be Reine Olga de Wurtemburg or Noella Nabonnand. The latter is very sweet, but the former is the brightest in colour. Three good varieties for arches that would bloom together in early summer are Réné André, Goldfinch and Rubin, or, to bloom later, Dorothy Perkins, White Dorothy and Hiawatha.

Roses for verandah (*Wickford*).—Two good climbing Roses for a south verandah would be Mme. Alfred Carrière and Noella Nabonnand; for west, Tausendschön and Climbing Caroline Testout; and for east, Lady Gay and Hiawatha. Good ramblers for a summer-house are Goldfinch, Grüss an Zabern, Rubin, Dorothy Perkins, Blush Rambler and Conrad F. Meyer. You could lighten the soil with ashes and road scrapings, also the clearings from ditches. Dig out holes some 3 feet deep if you desire free growth in your ramblers.

Rose Crimson Rambler with blighted buds and growths (*Copper Nut*).—This Rose should never be planted against a wall. If it is not attacked with mildew, as your plant is, red spider will spoil its foliage by feeding on the under surface of the leaves. A good remedy for the mildew is a thorough drenching, by immersing the shoots in or syringing, with a solution of Lifebuoy carbolic soap. Take half a bar of the soap and dissolve it in a gallon of soft water; then add two more gallons of water. When cool, use it upon the plants twice a week. Hold a bowl full of the liquor beneath the affected buds and shoots, and dip them in it. This practice would prevent green fly and mildew attacking other Roses you may have.

Roses for beds (*Combe Hill*).—We think the Lyon Rose would be an admirable sort for one bed. It is very free in flowering and a good strong grower. As you have Liberty and Richmond, we think Château de Clos Vougeot would be a good dark Rose. Its colour is velvety maroon, something of the shade of Prince Camille de Rohan, but it is lit up with scarlet touches. Its blooms are somewhat crimped, but it is a fine sort. If not this variety, we advise you to plant General McArthur, which is better than the others you name. Neither Medea nor Sulphurea can be recommended as yellow bedding Roses. The former is not free enough, and the latter produces a white effect in the mass, although exquisitely beautiful in the bud. We should recommend either Perle des Jaunes, Le Progrès or Mme. Ravary, unless you have this latter. Mrs. Peter Blair is good, but the open flowers are rather whitish. The best pink, omitting the three you name, would be Mme. Leon Pain or Mrs. E. G. Hill. Both are grand bedders.

Grafting Roses in pots (*B., Billericay*).—We do not think your plan at all feasible, as grafted Roses require a steady, uniform heat, which it is difficult to maintain except by a hot-water apparatus. Your best plan would be to pot up the Briars in November into 3-inch pots and plunge them in a bed of ashes; then by careful attention the Briars could be budded in their pots in the June and July following. They should be kept outdoors, still plunged and watered when required, until January, when they could be brought into your greenhouse and placed upon a bed of manure made up in the house, unless you could arrange for hot-water pipes, which would be far better. Cut off the tops of the Briars level with the eye or bud, and they will start and make plants equal, if not superior, to grafted plants. Climbing Roses could be budded in the same way, or you could bud these in the open ground and dig up the budded stocks when dormant and pot them up. Many growers of pot Roses resort to this plan. Seedling Briars would be preferable to Briar cuttings for both purposes.

Roses with tall growths (*M. A. M.*).—Another season, if you do not care for the Roses to produce such tall growths, we recommend you to bend some of them over arch-like or horizontal instead of pruning them back in the spring. Just fasten a strong peg into the ground and secure the growth to it by means of a string; then, when the growth has blossomed, cut it away, to be replaced by other and similar growths which will appear during the summer. The Tea and Hybrid Tea sections should largely predominate in your garden if you desire a freer blossoming, for, if these are cut down to the ground level each March and April, they will send up growths from 2 feet to 3 feet in height and covered with bloom. Perhaps when you write again you will inform us what the varieties are which you find so unruly; then we might be able to advise you more completely. For the herbaceous border nothing could be a better substitute for farmyard manure than Wakeley's Hop Manure. Probably the border needs overhauling. Many subjects, such as the Starworts, perennial Sunflowers, &c., should be

replanted biennially, if not annually. This work should be done now, excepting the Starworts (Asters), as these are in bloom. In their case the spring would be best.

THE GREENHOUSE.

Plants attacked by white fly (*B. J. B.*).—Your plants are attacked by what is generally termed the white fly, or it is occasionally spoken of as the Tomato fly, from the fact that it is sometimes a great pest to the Tomato-grower. Large numbers of plants are, however, liable to its attacks, particularly those whose leaves are of a rather soft texture, such as the Verbenas mentioned by you, Pelargoniums, Fuchsias, Lantanas, Heliotrope, Abutilons, &c. The eggs are laid in such numbers on the under sides of the leaves that syringing with any insecticide is at best only a partial remedy. We were very interested in your letter, as a few months ago we were consulted as to the best way of clearing a greenhouse of these pests. They were so numerous that when the plants were agitated quite a cloud of these insects on the wing made their appearance. From previous experience we recommended the XL All Vaporiser, with, we are pleased to say, perfectly successful results. The first application killed all the mature insects but not the eggs, and, being repeated in a week, those that had hatched meanwhile were destroyed. After the house had been vaporised four times at intervals of a week or so, the white fly was completely annihilated, and a month after search was in vain made to find even a single one.

Carnations sickly (*E. M. B.*).—The condition of your Carnations is undoubtedly due to some error in cultivation, but without a word as to the treatment given to the plants we cannot point out the cause. At the same time, it may be noted that, though an excess of moisture is very hurtful to Carnations, yet if allowed to get too dry as the flowers are developing many of the buds are apt to go blind. If the pots are well furnished with roots, an occasional dose of liquid manure when the buds are swelling is of considerable assistance, as there is then a great strain on the plant.

Stopping Malmaison Carnations (*M. L., St. A.*).—We do not advise you to stop your plants of Malmaison Carnations, that is, in a general way, though there may be a few individuals whose habit of growth is such that they will form better plants if stopped. We have seen stopping tried with a varying amount of success, but never enough to warrant its general adoption. There is, however, an increasing tendency to grow on plants for another year, and if these are carefully attended to, fine specimens with several shoots and bearing a number of blossoms may be obtained.

Wintering the Schizanthus (*Constant Reader*).—The Schizanthus must be wintered where it will be safe from frost. If in a cold frame it must, of course, be covered during severe weather. By many cultivators Schizanthuses are kept during the winter in a cool house from which frost is just excluded. It is very essential to allow a free circulation of air whenever possible, in order to keep the plants dwarf and sturdy. Good strong plants may be potted singly into pots 6 inches or 7 inches in diameter, or, if they are weaker, three plants can be grown in a pot, arranging them triangularwise.

FRUIT GARDEN.

Outdoor Grapes in concrete yard (*J. C. Hart*).—You may safely cut away all the dead wood and shoots you speak of as soon as possible—the sooner the better—so that the Vine shoots of this year's growth may be exposed to light and air, and thus become harder and better ripened, and more likely to produce good Grapes next year. The clearing away of this dead stuff will also help to ripen the present crop of Grapes quicker and earlier. You, of course, understand that the branches grown this year are those which will bear Grapes next year, and therefore should be taken the greatest care of. In training these branches when the leaves have fallen, you must train them over as large a space as possible, so that each branch may be at least 10 inches or 1 foot apart. If there are too many of these shoots, it will be better to cut away the weakest than to overcrowd the wall with them. You should devise some means of protecting the Vines from the overflow of the rain-water pipes. It would be a good plan to protect the stems of the Vines, as you suggest, against injury by severe frost in winter. A little of the outer loose bark may be rubbed off with the hand, but be careful not to take off too much. In dry weather in summer the Vines would be benefited by an occasional heavy watering with manure-water. The best to use for this purpose is that formed by mixing a handful of Peruvian Guano in two gallons of water.

Pears on walls colouring badly and cracking (*Newland*).—The injury to your Pears has been caused by an attack of the Pear fungus (Fusicladium pyrinum) when the trees were in flower. It attacks the flowers and thus prevents the young fruit from setting properly, and growth is thus crippled and the fruit rendered of little value by the cracking of the skin. The best way of destroying the fungus is by collecting all the leaves and burning them, serving the prunings from the tree in the same way. Then spray your trees copiously with Bordeaux mixture and again in spring, just before growth starts, and you should be rid of the fungus.

Pears cracking (*Pitcroft*).—Please see reply to "Newland."

Cheapest stuff to use for grease bands (*Newland*).—Anything of a greasy nature which will remain soft for some time will do. Cart-wheel grease is as good as anything; or you can obtain the bands ready for use from Walter Voss and Co., 5, Millwall, London, E.C.

An old Nectarine tree dropping its fruit (*J. B.*).—The variety is Victoria, one of the best late Nectarines we have. The fruit sent is of fair average size, of good weight and well nourished, and the reason for such fruit dropping prematurely, we think, is because the tree is suffering for the want of water at its roots. Provided the border is well drained, the Peach tree when bearing heavy crops of fruit is greatly benefited by heavy and frequent waterings, using, if available, weak manure-water from the cow or stable yard. This specially applies to old trees. As soon as the fruit has been gathered we advise you to give your tree a heavy watering with clear lime-water. A week afterwards give the tree a good watering with manure-water the same as above, but considerably stronger, and water again in the same way in the course of a fortnight. If this liquid manure is not available, the following is the best substitute you can have: Dissolve half a pint of Peruvian Guano and add to it three gallons of water. We have known the dropping of Peach fruit at the same stage as yours is in to be caused by forcing the tree in too high a temperature. It is, of course, well known that the absence of lime in sufficient quantity in the soil is the cause of many failures in the growth of the Peach, as well as other stone fruits. This is the reason that we recommend you to give the tree a good soaking of lime-water. As soon as the border is sufficiently dry after the three waterings for it to be forked over, give the border a dressing of bone-meal and lime in equal quantities, half a gallon of the mixture to every square yard, afterwards forking it in a few inches deep. If this treatment, with more frequent waterings next year when the fruit is swelling, does not succeed in arresting this complaint, write us again, and we shall know what to recommend you to do.

MISCELLANEOUS.

When to use carbide of calcium refuse (*E. A. H.*).—This may be used after exposure to the air for a time. When dry it should be spread on the ground at the rate of about one-third to half a bushel per square rod, broken as finely as possible and hoed or forked in. It may be used wherever lime is required, but, of course, not for Heaths, Rhododendrons and other plants belonging to the Ericaceæ.

Apples attacked by scab (*X. M. D.*).—The Apple is attacked by Apple scab, due to Fusicladium dendriticum. All dead wood should be cut out of the tree and burned. It should be sprayed with copper sulphate solution, 1lb. to twenty-five gallons of water, during the winter, and in the spring, after the petals have fallen, with half-strength Bordeaux mixture, and again with the same about the middle of June.

Grass on lawn thin and poor (*A. H. W. D.*).—You say your lawn overlies a barren, sandy, gravel soil. Under these unfavourable conditions to healthy growth of grass or anything else, it is useless to hope to ever possess a verdant and beautiful green lawn in summer. The best treatment to adopt, no doubt, would be to take the turf up and dig the soil deeply, burying the turf at the bottom, and adding good rotten farmyard manure at the rate of three cartloads to the 40 square yards of surface, and then sowing the best lawn seed at the end of March, using three bushels of seed to the acre. As you say this is out of the question, the next best thing to do, and the only treatment likely to benefit the lawn, seeing the soil is so hungry and poor, is to cover the lawn over now with soil composed as follows, applying one cartload of the mixture to every 40 square yards of the lawn: To one cartload of good rich garden soil add 15lb. of basic slag, the same of bone-meal, and 30lb. of quicklime, mixing the whole well together. This you will find will have the effect of destroying the lichen, and at the same time will greatly stimulate the growth of the grasses during the following spring and summer. The result would be much better if a bushel of the best grass seed could be sown over the surface of the lawn at the end of March, rolling it firmly in with a heavy roller and protecting it from birds until the young grass is in active growth.

Planting hardy flowers (*T. M.*).—Provided the soil is well prepared (by trenching, if it has not been trenched within recent years) or by digging and manuring (not too heavily) and by the free application of fresh lime to the soil at the time of digging, we think it is much preferable to plant those hardy plants intended for the furnishing of the flower borders for either spring or summer flowering in autumn than in spring, always choosing a time for planting when the soil is moderately dry. As regards the weather, this season has been altogether out of joint; growth of hardy and half-hardy plants, too, has been very late, and often most erratic. The lime, we hope, will help to prevent the Aster disease you speak of.

The Wonderberry (*J. S. C.*).—Much has been written about this notorious so-called production of Luther Burbank, which is nothing more than a form of that cosmopolitan weed, Solanum nigrum. Grown under various conditions, this plant is extremely variable in habit, as well as in the size and colour of its berries. In this country the berries of S. nigrum are usually considered of a poisonous nature, but it is possible that in more luxuriant varieties grown in warmer countries the active principal, solanine, is not present in such large quantities as to cause ill effects, and may be wholly removed by cooking. A paper on solanine in Solanum nigrum was read before the scientific committee of the Royal Horticultural Society on September 28th.

Various questions (*Ronald A. C. Jeffries*).—(1) Root cuttings of Anchusa may be inserted from November to February inclusive; but as we hope shortly to give an article dealing with this, we refrain from fuller details now. (2) The burning of sulphur for the destruction of red spider in a vinery may lead to very disastrous results, and is best not attempted by an amateur. If you cannot obtain the assistance of an expert gardener near, you had better paint the hot-water pipes with sulphur and heat them excessively hot for an hour or so, or you may at any time when the fruit is gathered syringe the plants, or obtain a Campbell Fumigator for sulphuring. Frequent spraying with nicoticide is excellent, as is also the use of quassia and soft soap in solution for discouraging the pest. A 6-inch potful of the quassia, boiled till the chips sink, will make sufficient for six gallons, soft soap at the rate of ¼lb. having been first dissolved. (3) Six good Chrysanthemums should include Elaine, William Holmes, Soleil d'Octobre, Source d'Or, Lizzie Adcock and October King. (4) Salt, when employed as a manure dressing to Celery, should be applied in August and again in September, before much earthing-up has been done. A 6-inch flower-potful, finely powdered, would be sufficient for a row 40 feet in length, sprinkling the salt each side of the row at 6 inches distance from the plants. Applied just prior to rainy weather, say, the first week in August, and again in four weeks' time, would be ample in one season. (5) To tell you the name of a pink-flowered Chrysanthemum you saw in the shops last Christmas would be for us the merest guesswork, though probably it might prove to be either Winter Cheer or Framfield Pink. Had you purchased a bunch and forwarded us one of the best blooms, we could have told you definitely. Possibly you might see it again, and if so, you might do as we suggest.

Relaying an old lawn (*Constant Reader*).—Purchased turf for lawns is for convenience, both for measuring and handling, cut in sods or lengths 12 inches wide and 36 inches long, and in your own case you cannot much improve matters. Turf so cut, and if thinly cut, is easily rolled up and just as easily rolled down for the relaying. The thickness of these turf sods should be about 1½ inches, and there is no gain whatever by cutting the sods very thick. We presume the lawn is not now level or that there exists holes or many bad patches which render necessary the relaying of it; hence its whole area should be dug over—it may be 1 inch or 2 inches deep, or much deeper—the depth depending on the condition of the soil, the drainage and other things. You ask "how the level can be got?" and we reply only by levelling. It may be that a dead level would be unsightly, and in certain instances, where the surroundings are not quite level, any treatment of the lawn should approximate thereto. Should the lawn be required for any of the outdoor games requiring a level surface for their due performance, you would have to act accordingly. A true level is obtained by using a spirit-level and straight-edge, employing these in lengths and bringing up the soil to such level. On larger areas boning rods, so-called, are employed, and in good or experienced hands nothing more is required. If your lawn is not large and only required for ordinary garden purposes, a good gardener would arrange matters almost by sight. The soil after digging would have to be first broken down with a fork and then with a rake, finally employing a little fine soil on which to relay the turf. The whole area should be first levelled before any turf is put down, and the operator should work from planks placed on the newly laid turf, and not from the prepared ground side, which would tread it in holes. To do this correctly, planks should be laid on the soil for the first two or three widths, to permit of placing the turf; then, changing the planks to the turf side, complete the work from this point. Close fitting is rather an important item, and full-width turves, not pieces or scraps, should always appear at the outer edges of the lawn, and be overlapped sufficiently to permit of proper trimming off.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

HYBRID STREPTOCARPUS.

FOR the vast improvement which has taken place during recent years in this charming flower, we are probably more indebted to that veteran florist, Mr. John Heal, V.M.H., to Messrs. J. Veitch and Sons of Chelsea, and to Mr. William Watson, Curator of the Royal Gardens, Kew, than to anyone else, each having done yeoman service in hybridising and popularising this now, I might almost say, universal plant. Not only is there an improvement in the size of the flowers, but almost every shade of colour is present, except yellow. In addition, the length of footstalk is much greater, which renders them suitable for all kinds of floral decorations, and the flowers, fortunately, last for a considerable time in a cut state. Suitably arranged with Orchids, when a proper selection of colours is blended, they make a charming table decoration. I have, during the past fifteen years or so, done what I could to help in the direction of improving what I believe will be for some years to come one of the most appreciated flowers when its cultivation becomes better known than at the present day. One distinct advantage is that with proper care and attention the same plants may be had in flower at least from early April until the middle or end of November. A mistake too often made is that the Streptocarpus is treated far too much as a stove plant rather than as a greenhouse subject.

Seed-sowing.

The seed should be sown early in the new year, either in well-drained seed-pans or pots. The surface on which the seed is to germinate should be fine and made moderately firm, and the seed (which is very minute) scattered evenly over the surface. Press this well in and do not cover it with soil. The whole should be thoroughly moistened by standing the pot or pan in a pail of water to the rim. A piece of glass should be placed over the top, after which transfer it to the shady part of a warm house until germination (which is rather slow) takes place, and subsequently place it near the glass, but shade from bright sunshine. Immediately the seedlings are large enough prick them into shallow boxes or pans, and grow on in the same temperature, taking care to protect them from bright sunshine. Directly the young plants show signs of making their second leaf they should be potted singly in 3-inch pots, which should be well drained, using a soil composed of two parts light loam, the same of well-decayed leaf-soil, and one part of coarse silver sand. These may be grown on in an intermediate house until they become established, always bearing in mind that the Streptocarpus is a shade-loving plant, and the foliage must never be allowed to become burnt. They may then be removed to a slightly heated pit, placing them on a bed of ashes as near the glass as possible, shading the latter with whitewash or some other suitable material. The plants must never be allowed to suffer for the want of water. The young plants should begin to flower about the middle of August, and if a good strain has been selected it will be found extremely interesting to watch their development. Each one of note should be labelled and these particular plants placed together for growing on the following season. All worthless varieties should be rejected.

During November and December the plants ought to be kept in a greenhouse temperature, allowing them to become moderately dry to give them the needed rest, and during January pot on the plants, after giving them a thorough soaking of water, into 5-inch or 6-inch pots. These must be well drained and a few quarter-inch bones placed on the top of the drainage; after which some good fibre, taken from the loam heap, should be placed thereon to prevent the soil clogging the same.

The soil for this potting should consist of good fibrous loam three parts, one of good leaf-soil or peat, one also of good silver sand, and a 6-inch potful of finely broken potsherds may be mixed to every half-bushel of soil. Pot very firmly, and start the plants into growth in an intermediate house, but rather err on the side of giving too little than too much fire-heat. Never exceed a maximum of 60°. Raise the plants as near to the glass as possible, be sparing of water until they become well established, and do not damp the foliage overhead, but give plenty of moisture by syringing between the pots, the walls and paths. As soon as the plants have plenty of roots in the new soil, manure-water of medium strength should be given every third watering, and when in full flower this may be increased to every other time. I have found nothing to suit them better than that made from horse and cow manure in equal proportions, to which should be added a small bag of soot. Clay's Fertilizer, by way of a change, is a safe and valuable manure when applied according to directions. To ensure the plants continuing to flower for a long season the old flower-stalk and seed-pods should be removed, except, of course, any which may be wanted for seeding purposes.

Insect Pests.

The two most troublesome of these we have to deal with in relation to Streptocarpus are green aphis and mealy bug. The latter should never be allowed to come into contact with the plants if

possible, and green fly may be kept in check by fumigating the plants about once in ten days or a fortnight with XL All. The most suitable house for flowering the plants during the summer and autumn months is a low span-roofed one, and during hot weather a moderate amount of air must be given both day and night. The same plants may be grown on for several years, but I have found it preferable to raise young plants annually and throw the old ones away after the second year's growth.

PROPAGATION BY LEAVES.

The propagation of any special variety may be easily done by means of leaves. This is best performed early in the spring. The midribs of the leaves should be placed round the outside of a pot in some place in a warm house, and these will throw up young plants from the base.

E. BECKETT.

[We are very pleased to receive these notes from Mr. Beckett, gardener to the Hon. Vicary Gibbs, Elstree, Herts. A selection of flowers raised by him was shown recently before the Royal Horticultural Society and obtained an award of merit; they were very beautiful in form and range of colouring.—ED.]

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

November 13.—Burton-on-Trent Chrysanthemum Society's Show.

November 16. — Winchester Horticultural Society's Show (two days).

November 17. — York Chrysanthemum Society's Show (three days).

November 18. — Barnsley Horticultural Society's Show (two days); Scottish Horticultural Association's Chrysanthemum Show (two days).

November 19.—Cumberland Chrysanthemum Society's Show; Leeds Paxton Chrysanthemum Show (two days); Bolton Chrysanthemum Show (two days).

Photographs of Sweet Peas.—Will any of our readers who have photographs of Sweet Peas kindly send them to us, so that we can make a selection for reproduction in THE GARDEN. Those of well-grown plants, or of plants grown in unusual ways, will be most welcome. Each photograph should have the name and address of the sender written clearly on the back and be addressed to the Editor. Those not suitable for reproduction will be returned at once. Where payment for the use of a photograph is required, this should also be clearly stated in the accompanying letter.

Jubilee Flower Show, Haarlem, 1910.—August and September were very busy months for the organisers of this show. A part of the grounds is laid out in regular French style in connexion with the imposing building of the palace at the north side of the grounds, which formerly belonged to King Louis Napoleon during his short stay in Holland. The other part of the show is designed in natural landscape style, affording an opportunity for a great number of most picturesque groups and clumps of all kinds of bulbs growing naturally at the feet of old trees, which are the pride of the Haarlem park. The nurserymen of Boskoop, Aalsmeer and other well-known centres of the Dutch nursery trade will plant masses of conifers, Yews, Taxus, flowering shrubs and trees in early spring. The temporary shows will be held in two spacious buildings specially erected for the purpose and affording the best possible conditions of light and artistic arrangements. Deputations have already been announced by the Royal Horticultural Society, the Société Nationale d'Horticulture de France, the Société Royale d'Agriculture et de Botanique de Gand and the Verband der Handelsgärtner Deutschlands. The deputation from the Royal Horticultural Society will consist of Sir Albert Rollit, Messrs. Harry J. Veitch, E. A. Bowles, James Hudson and the Rev. W. Wilks.

Trees in thoroughfares.—The Metropolitan Public Gardens Association, 83, Lancaster Gate, W., have for the third year in succession been appointed by the Council of the Royal Borough of Kensington to supervise the pruning and lopping of the trees in the public thoroughfares of the borough during the winter season. Trees so situated too often suffer severe injury and mutilation owing to this important work being entrusted to those who lack the necessary skill and knowledge.

South-Eastern Agricultural College.—A meeting of the governors of the South-Eastern Agricultural College, Wye, was held on Monday, November 1, at Caxton House, Westminster, Lord Ashcombe presiding. The Principal (Mr. M. J. R. Dunstan) reported 128 students to be in residence and a great increase in the number entering for the degree course of the University of London. The governors adopted a recommendation from the college committee that the college should be gradually enlarged to eventually provide adequate teaching and research accommodation for 150 students. It was announced that the Archbishop of Canterbury would visit the college on December 7.

National Carnation and Picotee Society (Southern section).—At a committee meeting held on Saturday, October 30, it was unanimously decided that the show for 1910 be held at the Royal Horticultural Society's Hall on Tuesday, July 26, and that the schedule remain as for 1909, with the addition of a class, open to amateurs only, for twelve distinct varieties of selfs, fancies and yellow-ground Picotees (undressed); first prize, the Martin Smith Memorial Challenge Cup and medal; second prize, 25s.; third prize, 15s.; the challenge cup to be held for the year.—T. E. HENWOOD, *Hon. Secretary.*

Proposed testimonial to Mr. James Grieve.—We understand that it is intended to promote a testimonial to Mr. James Grieve, the well-known Edinburgh nurseryman, and a committee with this object in view is being formed to further the movement. Mr. Grieve is a universal favourite in horticultural circles, and as he is approaching the anniversary of his fifty years' connexion with the nursery trade, the present is considered a fitting opportunity of showing the esteem in which he is held, and the general recognition of Mr. Grieve's services to horticulture and in that of Scotland in particular. It will, doubtless, meet with hearty support, and we are glad of the opportunity of announcing the movement. Mr. S. Chalmers, 6, Melbourne Place, Edinburgh, is the hon. secretary.

National Auricula and Primula Society (Southern section).—A committee meeting of the above society was held on Saturday, October 30, when it was resolved to hold the show for 1910 on Tuesday, May 3, in conjunction with the Royal Horticultural Society, the schedule to remain the same as for 1909. The society was established in 1875, and an annual exhibition has been held in London every year since. The society consists of 100 members, and it is hoped this number may be increased. This old-fashioned favourite flower has been in existence in Great Britain and Ireland for upwards of 300 years. Under proper treatment the Auricula is easily grown, and it is hoped Auricula-growers reading this notice may become members of the Auricula Society, the annual subscription to which is 5s., entitling them to a ticket for the Auricula show and also the exhibit of spring flowers held by the Royal Horticultural Society. Any further information and schedules of the exhibition may be obtained from Mr. T. E. Henwood, 16, Hamilton Road, Reading.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Atkin's Continuity Strawberry. I was very pleased to notice that Atkin's Continuity Strawberry received an award of merit at the Royal Horticultural Society's meeting on September 28. I have been much interested in watching this variety for two seasons, seeing it nearly every week. Last season I saw good fruits gathered in November. This season, as we all know so well, has been bad, especially for soft fruits, but the crop has been wonderful, both from one and two year old plants. As I stand among them to-day (October 22) many plants have fruits in all stages. I can fully recommend it to all Strawberry-growers, both as a summer, but more especially as an autumn, variety.—JOHN GRAY, *Wilton House, Woodside, South Norwood, S.E.* [Our correspondent sent excellent fruits, which were of very fine flavour.—ED.]

Pansy Matchless.—If Pansies such as those depicted in the coloured plate for October 23 can be grown from seed with a fair percentage having flowers of the quality in question, it will soon be unnecessary to select and name the very best and propagate the same from cuttings. They belong to the strain known as Fancy Pansies of the florist, a strain that originated in France in the early thirties, and was further improved there as well as in Belgium before the florists of this country took them up and brought them to the degree of perfection which we see to-day. Naturally, the florists of this country have spent an immense amount of time over them, and have taken a great deal of pains in getting the flower to its present size, variety of colours and their well-defined arrangement upon the petals. The leading feature of this strain consists in the very large blotch on each of the three lower petals, leaving only room for a margin or lacing of some other colour, sometimes shaded with another hue, and thus recalling the edge of an alpine Auricula. Plants raised from seeds are more vigorous than plants from cuttings, and more easy to cultivate by the community at large.—J. F.

Colchicum giganteum.—The note by "S. A." on page 518 reminds me that there are now at least three species of Meadow Saffron having the massive flowers of C. speciosum, the other two, of course, being C. Bornmuelleri and C. giganteum. The flowers of the first two are cup-shaped, and C. speciosum has a long tube to the flower. This also applies to the plant under notice, which may be described as having very large rosy flowers with a white centre, long, pointed, spreading segments and a flower tube 9 inches long. I have heard it described as bearing the same relation to C. speciosum as a Japanese to an incurved or Chinese Chrysanthemum, referring to the long and pointed segments of the flower. Cultivation has a good deal to do with the actual size of the flowers, but a fair test for comparison is obtainable when these plants are all grown under the same or similar conditions. I have seen C. speciosum grown in a pot for some years in an amateur's garden, with no larger flowers than our common Meadow Saffrons, though it could still be distinguished by its relatively broader and blunt segments. The large leaves of most of the Meadow Saffrons make it necessary to grow the plants in the open garden to get the best results. C. luteum, C. crociflorum, C. montanum, C. libanoticum and C. hydrophyllum, having smaller leaves, are more suitable for pot culture.—J. F.

The colour chart.—The idea of a colour chart is excellent, but to make it of any use the colour nomenclature must be adopted by the florists and seedsmen of the whole world. It also seems to me that a great many shades must be comprised in that devised by the Royal Horticultural Society that are of little use to

horticulturists, however much they may appeal to the designers of feminine attire. A dozen shades of each of the primary colours, with a few neutral and compound tints, a quarter or less of those provided in the Royal Horticultural Society's chart, would amply suffice for the most elaborate garden colour scheme, and might also be issued at a price more suitable to owners of small gardens—

THE NEW DWARF POLYANTHA ROSE JESSIE.

the ones who suffer most by the somewhat misleading colour nomenclature indulged in by nurserymen, whose blues and pinks, at all events, are apt to turn out dingy lavenders and mauves. Now that colour schemes are so general, a uniform method of nomenclature is desirable, but it must be one that is clear and easily understood, and must command the acceptance of every respectable grower.—M. PAUL.

Delphinium Beauty of Langport. I am sending you a photograph of one of Messrs. Kelway's beautiful Delphiniums, viz., Beauty of Langport, growing in the gardens here. It was planted with D. Primrose three years ago, and both have made vigorous growth and proved perfectly hardy and most welcome additions to this class of beautiful plants.—A. C. HUMPHREY, *Healing Manor Gardens, Lincolnshire.*

Rodgersia pinnata.—The notes upon this plant on page 531 are extremely interesting and instructive, in view of the fact that this genera is becoming more generally represented in gardens. The oldest species, R. podophylla, is in one respect still without a peer, that is, in so far as the leaf colouring is concerned. The beauty of R. pinnata when in flower, so faithfully portrayed in the illustration, will at once appeal to anyone who has given more than a cursory glance to the Kew plants; in this East Coast garden, however, it never develops anything of the rich colour so characteristic of the older species, which is planted in sodden bog-beds composed of loam largely impregnated with lime. R. podophylla develops leaves of enormous size, and quite early in July the purple crimson colour suffuses the leaves, remaining constant till autumn, when they ripen off, exhibiting at that season the brightest leaf colouring to be found among herbaceous plants. The clumps are afforded ample shelter and the fullest exposure to sun, so that everything favours luxuriant growth and rich colours in the leaves.—THOMAS SMITH, *Walmsgate Gardens, Louth.*

Ranunculus Lyallii.—I beg to enclose with this note an illustration of the Mountain Lily (Ranunculus Lyallii), cut out of the New Zealand Christmas Number of the *Weekly Press*, which I hope will interest you and numerous readers of THE GARDEN. It is described as one of the finest of New Zealand's sub-alpines and that it grows in great profusion. I have reason to believe that it is not very common in Great Britain, as I have failed to find it in any catalogues of our leading nurserymen. Nicholson describes this Ranunculus as the "New Zealand Water Lily. Flowers waxy white, 4 inches in diameter, spring and summer, height 2 feet to 4 feet, New Zealand, 1879. A very handsome and erect cool greenhouse plant." I should be greatly interested to read the opinions of some of your Colonial correspondents on this interesting plant.—J. E. DAVIES, *Talygarn, South Wales.* [The illustration sent by our correspondent was a cutting from the journal mentioned, and was not, of course, suitable for reproduction.—ED.].

Rose Jessie.—This is a Rose destined to become very popular either for pots, for bedding or for massing. The flower is of quite a new colour in this section, being a bright glowing cherry crimson, without a suspicion of the dull purple tints of other kinds of this class. The foliage and growth are similar to the parent, Phyllis; it grows robustly to a height of about 2½ feet in the open, and is continually sending up fresh growths and developing flower-clusters, so flowers are to be seen on the plant from June to October, and, if weather permits, right into December. As a pot plant too much cannot be said for it. Wherever it has been exhibited this season it has gained much admiration. The sturdy bushy growth makes it an ideal pot plant, the colour of the flowers being most attractive and the foliage a bright glossy green. The advent of this charming little gem was opportune, for many have planted the so-called Baby Rambler, Mme. Norbert Levavasseur, and have been disappointed with it. Not but that it has its merits, for as a forced plant it is very fine; but outdoors the colour is bluish, and no one cares for this shade. Now in Jessie we have a brilliant colour—a real glowing cherry crimson—which does not fade. The large clusters are produced very freely on a dwarf plant that never exceeds 2½ feet in height, so that it must be an ideal plant for massing, edging or pots. If planted about 15 inches apart and cut down to the ground each spring, this Rose would make a formidable rival to any bedding Geranium, and, of course, it would be durable. It is for this reason so many individuals are using Roses as bedding plants, and surely nothing can be more beautiful. Jessie is a sport from Phyllis, the beautiful Polyantha Rose distributed a year or two ago by the same raisers, Messrs. H. Merryweather and Sons, Southwell, and therefore it partakes of the same characteristics in all save colour. Strangely, Phyllis sported in Ireland, but the sport was not nearly so bright in colour as Jessie. Our gardens could be made most bright even were we to use these lovely Polyantha Roses only, for they are as ceaseless in their flowering as the Monthly Roses and contain a most varied assortment of colour.—P.

National Sweet Pea Society's classification lists.—It is with special interest I have read these lists as published in THE GARDEN recently, and note the effort made to purify seed lists so far as to make plain how great is the number of varieties in commerce which are in their respective sections too much alike. That is almost stating that they are really alike. But while the publication of such lists will, no doubt, materially affect the selections made for next year's sowing, greatly to the detriment of many still good varieties, the point needing explanation is this: Does the variety heading each sectional list signify that it is held to be the best, or may it be assumed that all named in each colour list are equally good? Were the selected varieties so placed accidentally or purposely alphabetically, so as to avoid any possible depreciation? It is very obvious that if, for instance, nine varieties be classed as carmine, then intending growers of some of them would be helped by such selection of, say, two of the very best in each case. The society may not care to take so great a responsibility, but some grower having a free hand may not be so trammelled. Then, is it to be assumed that the thirty-five varieties excluded from all future trials are to be regarded as equally undesirable for exhibition or for further growth? If that be so, it may become rather hard on growers who may have seed stocks of these on hand. Will they cheerfully accept the society's dictum and withdraw these varieties from commerce absolutely? That there are in commerce by far too many of these Sweet Peas is absolutely certain, and it must be somewhat painful work for the society to have thus soon to place on the list of varieties not required so many to which but a few years ago its certificates of merit were granted. The moral of this fact will be lost if the society does not make its certificates very hard to obtain in the future. The lists convey no information as to which varieties may be relied upon to come absolutely true. All who purchase seed would like to know this. One firm whose list I have professes to have described all flower colours with the aid of an International colour chart, but the descriptions in many cases differ widely from those of the society. Could not some complete unanimity on that head be secured?—LATHYRUS.

THE GREENHOUSE.

THE STOPPING AND TIMING OF CHRYSANTHEMUMS.

IN reply to the enquiry made by "H. B." asking when to stop the following Chrysanthemums and the kind of bud to select, we are pleased to give particulars respecting each variety in detail. In this way the information, which is of special interest to Chrysanthemum cultivators, will be taken advantage of by others, and the difficulties

A NOBLE PLANT: DELPHINIUM BEAUTY OF LANGPORT.

of growing large, handsome exhibition blooms lessened. So far North as Lancashire it is necessary to begin operations quite ten days to a fortnight earlier than is necessary for growers in the South, as the difference in climate is considerable and the seasons vary to the extent represented by the number of days above mentioned. As "H. B." rightly says, the district in Lancashire where his garden is situated is "very cold and bleak." This is sufficient to justify us in recommending the stopping or pinching of the growths of the plants about a fortnight earlier than is usual in the South of England. This system of stopping the Chrysanthemums is only necessary in the case of plants intended for exhibition, where it is of the utmost importance that the blooms shall be at their best within a given period—generally in the early days of November. The dates recommended for stopping the plants in the undermentioned table are for Southern growers, so that growers in the Midlands should begin operations a week or so earlier, and in Lancashire and further North fully ten days to a fortnight earlier. In Scotland an even earlier period of stopping the plants is most desirable.

JAPANESE.

Name of Variety.	*When to Stop the Plants.*	*Which Buds to Secure.*
Miss Elsie Fulton	First week June	1st crown
Simplicity	Third week March	2nd crown
J. H. Silsbury	Mid-April	,,
Mary Inglis	Third week March	,,
Rayonnante	Last week March	,,
Cheltoni	,, ,,	,,
Mafeking Hero	Third week March	,,
Marquis Venosta	Mid-April	,,
Lady Conyers	Third week March	,,
Miss Stopford	Third week May	1st crown
N.C.S. Jubilee	Third week March	2nd crown
Mrs. Geo. Mileham	End May	1st crown
Mrs. Greenfield	First week June	,,
Mrs. F. W. Vallis	First week April	2nd crown
F. S. Vallis	Last week May	1st crown
Bessie Godfrey	End May	,,
Chry. Montigny	Early May	,,
Henry Perkins	First week April	2nd crown
Mrs. C. Beckett	,, ,,	,,
Valerie Greenham	Last week March	,,
Mrs. W. Knox	Mid-April	,,
Mrs. Eric Crossley	End March	,,
George Laurence	Last week May	1st crown
Mrs. R. H. Pearson	Mid-April	2nd crown
Reginald Vallis	Third week March	,,
Leigh Park Rival	Early April	,,
Mrs. A. T. Miller	End March	,,
E. J. Brooks	Early April	,,
Magnificent	Third week March	,,
Norman Davis	Late March	,,
Mme. G. Rivol	Second week April	1st crown
Walter Jinks	Third week March	2nd crown
Viola	Third week May	1st crown
Leigh Park Wonder	Third week March	2nd crown
Mrs. Walter Jinks	Early May	1st crown
Mrs. N. Davis	Third week March	2nd crown
Algernon Davis	Late March	,,
Dennis Kirby	Third week March	,,
Godfrey's Eclipse	Third week May	1st crown
W. Beadle	Late March	2nd crown
Emily Towers	Third week May	1st crown
Rose Pockett	Third week March	2nd crown
Mrs. G. F. Coster	Late March	,,
Norfolk Blush	Early May	1st crown
Thomas Stevenson	Third week May	,,
Pockett's Surprise	Early April	2nd crown
Glitter	,, ,,	,,
Lady Smith of Treliske	Late April	1st crown
Jos. Stoney	Mid-April	2nd crown
Splendour	Late March	,,
Dorothy Gouldsmith	Third week May	1st crown
F. W. Lever	First week April	2nd crown
Mrs. Guy Paget	Third week May	1st crown

INCURVED VARIETIES.

Mrs. Barnard Hankey	Third week March	2nd crown
Charles H. Curtis	Third week May	1st crown
Mme. Ed. Roger	Third week March	2nd crown
Mme. Ferlat	Mid-March	,,
Buttercup	Third week May	1st crown
W. Pascoe	Early May	,,
Mrs. F. Ashworth	Late April	,,
Mrs. G. Denyer	Third week April	2nd crown
Souvenir de W. Clibran	First week April	,,

Although you are disappointed with the results of the present season, you should remember the abnormal weather experienced from the earliest days of summer onwards. The cool and moist conditions that have prevailed almost continuously from the period above mentioned are responsible for the late development of the buds. The Chrysanthemum season is fully two weeks later than usual.

TREES AND SHRUBS.

ON PLANTS FOR THE WALLS OF HOUSES POSSESSING ARCHITECTURAL MERIT.

WHEN a building presents any good architectural features it is essential that these should not be in any way interfered with by a covering that obscures the details or breaks the lines. This is almost sure to be the case if coarse-growing creepers such as Ivy and Ampelopsis are planted against it, because it means very intelligent and very constant cutting and trimming to keep them within the spaces which may, without detriment to the general appearance of the building, be allotted to them. Half a year's neglect is enough to enable them to trespass far beyond these limits, and to allow an ordinary garden labourer to trim them will result in hard, straight edges, which will confuse the architectural lines and mar the composition.

Wall shrubs and climbing plants capable of orderly training and submissive to drastic pruning are preferable in such cases to creepers. Some of these should be evergreen, and nothing is better among those that are thoroughly hardy than Cratægus Pyracantha Lelandii. It is a free grower, of which the branches can be trained in any direction and superfluous ones removed. It is always cheerful. The white flowers of summer and the red berries of autumn and winter vary its appearance and add to its beauty. Azara microphylla is much hardier than is generally believed. In the South and West of England it will pass through a hard winter unscathed when planted in the open and exposed to north and east winds. In the Midlands it is quite safe against a wall. Its boughs cannot be so exactly trained and trimmed as those of the Cratægus, but superfluous ones may be readily removed, and the thin growth of small leaves never makes it a dense plant. Where they will flourish Myrtles and Magnolia grandiflora are excellent. But they are less orderly and more dense; so let not the knife be spared when they begin to trespass. As regards deciduous plants, there is nothing better than the Wistaria, for the closer it is pruned back the better will be the effect. An old plant yearly cut back to the main stems will throw out perfect cascades of bloom at intervals, and these will be followed by leafy shoots which will not be too long or too dense until quite the autumn, and which will be cut away in the succeeding pruning. Vines treated in the same way and kept well in hand have an excellent effect. Straight horizontal lines of leafage, not touching or even very close to each other, should be obtained. As to Roses, the Rambler class does better on trellises and poles away from the house. But some of the Teas, and notably the climbing varieties of Caroline Testout, Belle Siebrecht and Papa Gontier, are excellent against a stone house. They are strong and healthy growers, and can be pruned resolutely back every spring and only sufficient new, clean, vigorous wood allowed. Among climbers, Akebia quinata, Berberidopsis corallina, Tecoma radicans grandiflora and Stauntonia hexaphylla are not likely to become disorderly or overwhelming, and will not, everywhere, even succeed. Deciduous shrubs like Chimonanthus fragrans and Cydonia japonica can easily be made to grow 15 feet high in time, and with a little pruning and training be made to keep their place. So can such climbing plants as Jessamines, Honeysuckles and Clematises. But *train* them; and this must be done not with shears, but by cutting out a great amount of old wood every year from the ground and keeping only recent growths, or stools. These will break into growths, and will produce a sparse and semi-veiling dressing of foliage which should never be allowed to encroach on the detailed portions of the building. *Country Life* (November 6).

THE ROSE GARDEN.

NOTES ON NEWER ROSES.—VIII.

HYBRID TEAS.

(Continued from page 543.)

LADY FAIRE (Bradley, 1907).—This has been so largely shown and, I may add, so well shown under its synonym, Joseph Lowe, that the second title threatens to become the more popular. It is apparently another instance of the same sport occurring in more than one place at the same time. This raises a very interesting question that, correctly answered, might throw some light on the unanswered query: What causes a sport? But that cannot be discussed here. I believe it has never been scientifically explained—that is to say, science can give no satisfactory explanation—so it is no use for a layman to try his hand at it. I have grown the two Roses, Lady Faire and Joseph Lowe, side by side, and as far as I can see they are identical. It is not a case where a decision as to which name it shall in future bear would mete out justice with equal hand to both parties, and so the Rose must bear both names. A sport from Mrs. W. J. Grant, with some resemblance to the colouring of Mme. Abel Chatenay, but without the salmon tint that distinguishes that beautiful Rose, it, as might have been expected, is of not too strong a growth, but it should make a good bedding Rose for all that. We are not likely to see it often on the exhibition bench, as there are too few petals and its flowers open too quickly, but a cool season will find it represented. A beautiful Rose that will become popular by reason of its colour and fine shape.

Lady Helen Vincent (Alex. Dickson and Sons, 1907).—One may say at once that this is a beautiful Rose too, but only the ardent exhibitor will get it at its highest phase of possible beauty as the text-book has it. It requires high cultivation, and, given it, will produce magnificent-shaped flowers of a beautiful pale blush shell pink. Very fine under glass, but an exhibitor's Rose only.

Lady Ursula (Alex. Dickson and Sons, 1908).—"This is a real good Rose; don't you make any mistake about it!" to use words that are frequently on the lips of a well-known trade grower. I had it in my mind when I was writing of G. C. Waud as the best of Messrs. Alex. Dickson's 1908 set. When two Roses are so dissimilar it is not easy to decide between their respective merits, and I should not feel inclined to quarrel with anyone who said Lady Ursula was a better Rose than G. C. Waud. It lacks, of course, the distinctive colour of the latter Rose; its merit lies in its shape rather than in its colour, but it has many good points. It is an excellent grower, has fine foliage, and the high-centred or pointed flowers are freely produced. The colour is a bright, clean shade of flesh pink. Lady Ursula will be most useful to exhibitors, and it is, from my short experience of it, an excellent garden Rose too, with fragrance that shows its Tea parentage. Messrs. Alex. Dickson and Sons need fear no rivals while they can continue to send us out such Roses as Lady Ursula.

Laurent Carle (Pernet-Ducher, 1907).—This Rose is a fine colour, of a distinct deep carmine shade that should make a good bedding Rose. It has not come quite so large with me as I should like to have seen it, and its usefulness for the exhibition will not, I think, be great; but there is plenty of time for that side to be developed. It is a good grower, of good habit; long buds borne singly on stems of useful length, fully and continuously produced, which open well.

Lyon Rose (Pernet-Ducher, 1907).—A Rose that is going to find its way into every garden and which will probably be found written on nearly every order that reaches the nurseryman this autumn, and that, unless ordered at once, will not

be supplied—at any rate, from the home-grown Roses. It is the sensational Rose of the period under review ; it came to us with a big reputation, and, what is rather unusual, deserved it. The flowers that have been produced on the small imported rooted cuttings that the trade endeavoured to supply the demand with last year can give one no idea of its value when grown naturally—I mean from outdoor propagated plants. Messrs. Stuart Low and Co. of Bush Hill Park have the largest outdoor-grown stock of it that I have seen anywhere this year, and their rows of it as seen growing were a picture. It is not quite an ideal bedding Rose, as its growth is best described as awkward ; but if that is overlooked, and it is quite possible that it will improve in this respect, then no Rose garden worthy of the name will be complete without it. So much has been written in your columns and the Press generally of the wonderful colour that I will say little about it. The general description of shrimp pink and coral red centre does not satisfy me, and is hardly accurate ; but it is so variable, varying from the pink of Caroline Testout to the pinkish yellow of Paul Ledé, that an accurate description would be hard to evolve. All I can say to your readers is, "Order it, and be sharp about it," as it will share with Mme. Melanie Soupert the honour of being the most sought-after Rose of the year—among the newer Roses, that is. I suppose Mme. Abel Chatenay would fill the first place among the older Roses.

Purley. H. E. MOLYNEUX.

(To be continued.)

A NEW GOLDEN BEDDING ROSE

THROUGH the courtesy of my friend M. Pernet-Ducher I was able to inspect some blooms of his marvellous new golden Rose Rayon d'Or. Instead of being a golden ray it is a veritable flood of gold, and will supply a long-felt want to those who employ the delightful Hybrid Teas for bedding purposes. On opening the box of blooms the first exclamation was "What a glorious colour!" I at once compared Rayon d'Or to that rich golden, erratic variety Georges Schwartz, but found this latter of quite a pale primrose yellow, so different to its summer colour. There was no Rose in my large collection of such a rich, deep pure yellow. It reminded me of Maréchal Niel and Persian Yellow, or what might be termed yellow Broom colour. M. Pernet-Ducher informs me it is another of the Rosa pernetiana hybrids, and it certainly is a triumph for this most successful hybridist. To have beds of Roses of such a colour as this in mid-October will give a wonderful brightness to our autumnal displays. The bloom is not too full, so that it opens freely in all weathers, and the buds are prettily splashed with red on the outer petals. One can perceive its relationship to Soleil d'Or or its offspring in the tiny hairy prickles on the flower-stalk, so distinct in the Lyon Rose.

The growth is good, of dwarf habit, in the way of Le Progrès, and being so free and continuous in its flowering, producing its blooms in twos and threes, it cannot fail to make a most effective bedder. The beautiful dark olive green foliage is absolutely immune from attacks of mildew—this in itself a glorious boon—and it also has a sweet fragrance. My only regret is that we cannot possess Rayon d'Or until the autumn of 1910, for it is certainly the long-desired true yellow bedding Rose. P.

THE NEW PENTSTEMON MYDDELTON GEM. *(Slightly reduced. See page 554.)*

GNATON HALL GARDENS, PLYMOUTH.

RECENTLY I had the pleasure of visiting the charming garden of Mr. Charles Bewes at Yealmpton, South Devon, and think this must be one of the most interesting gardens in the West of England. The situation is an ideal one, with the Yealm, with its wide expanse and lovely banks, in the foreground, and in the distance the silvery sea and cliffs, with the Eddystone Lighthouse and Plymouth some nine or ten miles in the distance. The estate has not been in Mr. Bewes's possession many years, having previously been one of the seats of the Williams family.

During the past few years much has been done to the gardens in the way of additions, notably the rock gardens, and with such an ideal situation the work has produced a most pleasing result, care in every case being taken to follow the natural formations. I should add that the earlier work in the laying-out and formation of the rock gardens was ably carried out by the late Mr. Meyer of Messrs. Veitch's, Exeter, and the choice trees and lovely vistas testify to the splendid work of this well-known West of England firm, and also in a great measure to the interest taken in horticulture by the present owner of the estate. Mr. Bewes may be termed an enthusiast in all matters concerning the garden, and he is ably supported by his gardener, Mr. E. C. Pooley, who may be classed as an ardent lover of all pertaining to the hardy flowers and the outdoor garden. At the same time, other important parts of the garden receive ample attention, fruit and vegetables being special features at Gnaton. The hall has on one side an elegant chapel, which is dedicated to St. Mary and adjoins the house ; and here was growing on the southern side splendid plants of Lapageria, both white and rose coloured, these flowering profusely and

without protection. On the opposite side of the mansion is the conservatory, and here was seen much taste in the grouping of the various plants, very little staging of any kind being employed. The terrace steps, which are most ornamental, were flanked with huge vases of Ivy Pelargoniums that were a mass of blossom, these steps leading to small and large tennis and croquet lawns and the flower garden. The latter had some large and very fine beds of tuberous Begonias, and these were mostly self-coloured, the effect of either the upper or the lower part of the garden being very striking. Other beds comprised large breadths of early-flowering Chrysanthemums, and these in distinct colours were most effective.

I have referred to the trees and shrubs. Of the latter Mr. Bewes has recently planted a sheltered south border with the most recently introduced plants, and with a good belt of large trees to protect them from cutting winds these should in a few years form a most interesting collection. Some of the Chinese tender subjects will, I fear, need a little extra shelter in the winter; but so many plants are at home in the Gnaton Gardens that fail in the Midlands. Of ordinary trees there are some fine examples of Beech, Elm and other kinds; but what most interests the visitor are the wonderful groups of Hollies and some very fine specimens of Evergreen Oak in variety. Of the conifer section a magnificent Araucaria Cunninghami is a very fine tree 30 feet high. There are also fine trees of Abies glauca, Thujopsis dolabrata, Cupressus macrocarpa and very fine trees of Thuja Lobbii, Abies Douglasi and others. The shrubs are equally interesting, and the flowering section was much in evidence, some of the most interesting being Carpenteria californica and the beautiful Benthamia fragifera. Callistemon salignus, a fine piece of Embothrium coccineum, Acacia verticillata and Drimys Winteri—a fine specimen of this beautiful South American shrub—were very good. Solanum jasminoides, a lovely South American climber, was growing freely on a warm wall, and is a mass of flowers yearly. S. Wendlandii is also quite at home, and its large, lilac blue flowers and pendulous growths were most beautiful at the time of my visit. The beautiful greenhouse climber, Berberidopsis corallina, on a south wall was a splendid object, its masses of coral red, drooping racemes being much admired; it grows very freely. The less-known Jasminum primulinum and Clematis montana rubens are beautiful wall plants and quite at home, being remarkably healthy. In addition to the beautiful wall and rock gardens, much space is devoted to hardy border plants and annuals, and they are planted in bold masses. Dimorphotheca aurantiaca is largely grown, also Rehmannia angulata, which is quite hardy and not protected. The small but pretty Diascia Barberæ, with its rosy pink flowers, is very much liked. Salvias in variety are used largely, such as S. patens, Fireball and Zurich. Carnations, perpetual and border, and some 400 Chrysanthemums are grown in pots for winter decoration. The fruit and vegetable departments, though mentioned last, are by no means least, and occupy considerable space and are well done, but space does not permit me to note the best things seen.

G. WYTHES.

THE FLOWER GARDEN.

A NEW RACE OF BRANCHING TULIPS.

THE typical Tulip of most people is a plant with a single, unbranched stem and one flower. As, however, we become more conversant with the family as a whole we begin to realise that there are a very considerable number of exceptions to the rule, for both among natural species and garden hybrids we find examples with branched stems, and from two to five flowers on each. In at least three species, viz., biflora, dasystemon and præstans (erroneously called suaveolens by Dr. Regel), the normal plant is always more than one-flowered. The same occurs among garden hybrids. Both in Coronation Scarlet and La Tulipe Noire branching is fairly constant, while in other varieties, such as the Darwin Whistler, it is only occasionally met with. In this connexion it is of interest to recall an article in the *Revue Horticole* of Paris that appeared in 1882, in which a certain amateur grower claimed to have produced a many-flowered type that would remain constant. This, however, was probably only the result of good cultivation and the use of particular manures. Hence when these conditions were withdrawn the plants reverted to their normal one-flowered condition.

In the same number (*Revue Horticole*, 1er Février, 1882) there is an interesting coloured plate of a double purple Tulip with a branched stem and five flowers which was found in a garden near Paris. This was put into commerce under the name Roi des Bleus, so its branching must have been constant. I am unable to say if it is still in existence, but the fact that such a one was found is peculiarly interesting. We may regard it as a sort of solitary forerunner of a new race of many-flowered Tulips which not only would remain constant in themselves, but would be able to transmit this characteristic by seed. Thanks to M. Bony of Clermont-Ferrand this is now an accomplished fact. Some twenty years ago he found in an old-fashioned garden, where Tulips had been grown for a long time, one that regularly bore from three to five flowers on its main stem, and, in addition, frequently sent up a second one with two more. He acquired the plant, and then began to increase it, and at the same time to cross it with various species and garden forms. The original he has named M. S. Mottet, and it was exhibited before the National Horticultural Society of France on April 22 last. Some cut flowers were also shown to our own Royal Horticultural Society's scientific committee on May 4.

Some of the plants of the first generation—F^1, to use Mendelian language—have flowered. He has found almost all of them to be many-flowered under certain conditions, but that "*some only* preserve the character with constancy." He has now in his possession a great many varieties, and some of these he has again recrossed, but as the young plants are not old enough to bloom, it is impossible to say what the result of F^2 will be. If, as M. Bony hopes and expects, the many-flowered characteristic is preserved, it is hardly too much to say that a new era in the Tulip world will have begun, and possibilities undreamed of a generation ago will have come into being.

A NEW RACE OF TULIPS WITH BRANCHING STEMS.

From the illustration the general appearance of the plant can be gathered. Botanically considered the branching is due to fasciation.

I have planted some bulbs of M. S. Mottet in pots and some in the open ground in order to give it a good trial. If the former do well I hope to exhibit them next spring at Vincent Square, and, with the Editor's permission, to write an account of how they have done and how they look.

JOSEPH JACOB.

[We shall welcome such particulars from our esteemed correspondent.—ED.]

OURISIA COCCINEA.

THIS is a beautiful plant for a moist and shady position in the rock garden, its scarlet spikes of flowers being very effective. It is a native of Chili, and blooms in July and August. Many find it rather difficult to cultivate, but given proper treatment in the way of position and soil it will thrive and flower well. Choose a moist and half-shady place, raised about 12 inches or 18 inches above the ground-level. This plan of having the place raised allows proper drainage, for, although it is a moisture-loving plant, anything in the way of stagnation or sourness of soil means failure. I have found that the most suitable soil for its requirements is a mixture of peat and sharp grit. It delights in having plenty of stones to creep over, and it is best when planting to cover all intervening spaces with stones. The shoots will root over these and then find their way all over the bed.

Gnaton Gardens, Plymouth. E. C. POOLEY.

PENTSTEMON MYDDELTON GEM.

THOSE who know the beautiful Pentstemons named respectively Newbury Gem and Southgate Gem will welcome this newcomer, which will complete a trio of beautiful outdoor flowers. The plant is exceedingly free-flowering, grows some 2 feet or rather more high, and is particularly graceful in appearance. The outside of the

flower is carmine rose colour, this hue also forming a margin to the inner surface, the throat being pure white. It was shown by Messrs. R. Wallace and Co., Kilnfield Gardens, Colchester, before the Royal Horticultural Society on September 28 last, when it received an award of merit.

DESIGN IN GARDEN PATHWAYS.

A PECULIAR virtue attaches to a stone-paved garden in that it is accessible at all seasons and in all weathers. Stone differs from turf in that it sheds, rather than absorbs, moisture, so that while the dew is yet heavy upon grass one may pass over paved walks dry-shod. In most gardens there are generally positions which lend themselves to the introduction of stone-paved ways. Pergolas and terraces are instances, as both are largely frequented, and the former often fails in yielding the essential conditions which go to produce good turf; so that the stone pathway offers the happiest and most lasting means of egress to this part of the garden. Terraces, where adjacent to or leading from the mansion, always gain in effectiveness and comfort when so laid. Then in gardens of a formal or geometrical character the inclusion of a stone-paved area gives much of the quaintness and character of an old-world garden.

The happiest ideas in the use of stone pathways are often contained in these old gardens. One such that comes to memory has a central area occupied by an oblong tank containing water, in which a selection of the rarer varieties of hardy Nymphæas are cultivated. The margin of the tank is formed of hewn stone, and is continued so as to form a broad pathway around the water area. Beyond this a space of 18 feet or more is laid out and planted as a mixed border, to which a background is provided in the form of a rough wooden screen lavishly clothed with Rambler Roses. The border which constitutes the south side has a luxuriant growth of hardy Ferns, among which are planted considerable quantities of early-flowering hardy bulbs. Each season has, therefore, something to awaken interest—in spring, bulbous flowers for the opening year, succeeded by Nymphæas to bejewel the water's surface during summer and autumn, while the same seasons witness the stately occupants of the borders adding their wealth of gorgeous colouring to what one may fittingly regard as an enchanted scene. Between the borders and the water lies the old stone pathway with its quiet, restful tone of neutral grey, on the one hand emphasising the refined character of the Water Lilies, on the other disarming what is harsh or discordant in the border.

Even in quite small areas there are, at times, opportunities where the judicious use of paving-stone will largely augment the interest and beauty of the garden. Such an instance occurs in the illustration, where a small terrace in a retired part of the garden overlooks a small formal Lily tank, the terrace being laid throughout with Yorkshire pavement. Taking advantage of the seclusion, a varied selection of dwarf perennial subjects have been coaxed into establishing themselves in the various joints and fissures of the pathway and steps, so that one may readily observe not only their luxuriance of growth, but their aptness for the position, as if such were in the highest sense a congenial home for the plants. Rock plants have peculiar merits for this form of planting, and even the commonest species will in time adapt themselves to their niche of stonework in such a way as will rarely fail in their appeal to refined tastes.

The primary use of stone paths is to provide comfort when walking; but the true gardener, seeking new spheres of conquest, decks them with floral treasures and thereby invests them with an added mission, so that they become virtually flowery pathways leading to other scenes and newer interests. THOMAS SMITH.

Walmsgate Gardens, Louth.

THE FRUIT GARDEN.

FRUIT NOTES.

PRUNING APPLES AND PEARS.—Those who plant fruit trees must not think that the work in connexion with them commences and ends with the mere act of placing the roots carefully into the soil; as a matter of fact, the really intelligent operations are then about to start, and it is entirely upon the manner in which they are carried out that success depends. At the outset trees that come from the many reputable nurserymen of the country are practically certain to be in excellent condition; the earlier steps of cutting to form a satisfactory foundation will have been taken, and it remains with the purchaser to maintain them in a perfect state. There are many little things that will demand attention from time to time; but the operation of pruning, which has to be done each season, is of outstanding importance, and it is impossible for too much thought and care to be devoted to it.

PAVED TERRACE AND STEPS PLANTED WITH ALPINE FLOWERS.

THE BEST TIME.—It is immaterial what form of Apple or Pear tree may be demanding attention, but there can be no doubt as to the desirability of completing all the cutting before Christmas. One would not go so far as to assert that the work may not be successfully done long after Christmas, but one may safely say that we get the worst of the winter weather in the first and second months of the year, and pruning trees is essentially not one of those tasks that one cares to do when the rain is coming down in torrents or there are 10° to 20° of frost. Indeed, to cut during frosty weather, whenever it may happen to come, is an error, since the frost may, and probably will, get into the heart of the shoot, and it is certain that trouble will follow in a very short period. Apart from all this, the cutting that is carried out in November and December is done when the habits of the different trees are fresh in the mind of the worker, and the natural consequence is that the operation will be far better finished off.

THE OBJECT OF PRUNING.—The primary object in view in the cutting of fruit trees is to increase their fertility, and one of the surest aids to this is to permit the free admission of light to all the buds in the centre as well as on the outer growths. To this end the middle of the tree ought always to be kept open, and whenever it is necessary to reduce a shoot in length, the cut should invariably be to an outer wood-bud—that is to say, to a flat, pointed bud on the outer side of the stem—since the new shoot will grow in the direction in which the bud points. Thus, if we cut to a bud on the inner side of the stem, the resultant shoot will grow inwards and tend to fill up instead of keep open the middle of the tree. Much, of course, depends upon individual circumstances, but, generally speaking, all the principal shoots should stand 18 inches asunder, so as to allow of the perfect development of the leaves, without which it is impossible to secure the finest crops of fruits. Where the growths are crowded, they should not always be cut back a portion of their length; on the contrary, it is usually far better practice to cut them clean out from the point of origination. As a rule, the bulk of the crop will be carried on spurs on the old wood, and the pruner should cut hard back to these in the winter pruning. The summer cutting or pinching makes this operation easier; but whether recourse is had to this system or not, the winter cutting must be close back, or the spurs will extend to such a degree that the results will never be satisfactory. It is, of course, always desirable to allow some extension of new wood, and the amount must necessarily depend upon circumstances. When the tree is being formed we have to cut back the new shoots by one-half or two-thirds of their entire length, but after the foundation is perfectly established the actual length will depend upon the available space and the condition of the tree. In any case, all unripe portions, as judged by the colour of the bark, must be removed, and there will then remain anything from 3 inches to 12 inches of new wood, according to convenience. In all cases it is essential that the natural habit of the variety shall be considered, as, though the principles are the same, there are deviations from them, and it is those who study the different varieties under their charge that achieve the greatest success in the culture of these valuable hardy fruits. FRUIT-GROWER.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

VEGETABLE GARDEN. — The principal work in this department now will consist of digging and trenching vacant plots, and no ground should be left unturned that can be got at. In the case of soil of a clayey nature this autumn working is particularly beneficial, as it enables the frost to thoroughly pulverise the soil, and the benefit is experienced the whole of the following summer. It is essential that the plot be left as rough as possible, and on very wet soil ridges 1 foot or more high may be made. Where such pests as wireworms, leather-jackets and slugs have been troublesome, the ground should be dressed before digging with fresh gas-lime, or, failing this, Apterite, a substance I have found very effective indeed. The simple directions for its use are supplied by the vendors.

Trees and Shrubs.—The planting season is now in full swing, and as the present is the best time of the whole year, no opportunities of pushing the work forward should be neglected. All deciduous trees and shrubs move well now, but evergreens I prefer to leave until the spring, as these are often severely damaged by frosts if transplanted now. It will be necessary to make large holes for the reception of the specimens to be moved, and where the whole of the soil has not been previously trenched, the bottoms of the holes must be well broken up. It must always be remembered that, under ordinary circumstances, a tree or shrub will occupy its position for many years, during which working of the soil beneath and among its roots is practically out of the question.

Flower Garden.—Frost has now killed the tops of all those plants which may be regarded solely as summer occupants of the flower garden; hence much tidying and clearing away will need to be done. Any plants of an annual character may be pulled up and thrown away, and those of perennial habit have their tops cut off and the rootstock removed to a place of safety. Any Dahlias not yet lifted should be taken up without further delay, labelled, their tops cut off and, after being stood upside down for a few days to let moisture drain out of their hollow stems, stored in a dry and frost-proof place for the winter, the tubers being embedded in ashes for preference. I know it is possible, and some amateurs adopt the method, to leave the roots in the ground all the winter and protect them there by means of litter and ashes, but there is nothing to gain, and usually much to lose, by such a system.

Fruit Garden.—Where new trees were ordered during the summer months they will now, or shortly, be arriving from the nursery, and the positions where they are to be planted should be in readiness to receive them. As in the case of ornamental trees and shrubs, the soil must be well and deeply broken up, but I am not an advocate of the method of applying manure to the soil at the time of planting; this is better applied in the form of top-dressings after the trees have become established. If the ground is not ready, or the weather conditions are not suitable for permanent planting, the trees should be unpacked and their roots laid in a trench and covered with soil, otherwise they will get dried and the trees thereby suffer considerably. The pruning and training of established trees may be pushed forward on all favourable occasions, as the sooner the work is done now the better.

Greenhouse and Frames.—The earliest of the Roman Hyacinths that were taken into the greenhouse a week or two ago will now be pushing up their flower-spikes rapidly, and to produce sturdy stems the plants should be kept as near the glass as possible. Bulbs in the plunging material will need to be examined once a week, and those which are ready removed to the cold frames and afforded gradually increasing light preparatory to being taken to the greenhouse or windows. Arum Lilies will now be giving us the first of their flowers, and will require an abundance of water; in fact, where the drainage is good it is well-nigh impossible to overwater, as the plants are naturally almost aquatic. In addition to ordinary water, a good soaking with weak, clear soot-water twice a week will be much appreciated by the plants. H.

2.—THE SAME SQUARE OF TURF AS SEEN IN FIG. I. THE SOIL HAS BEEN FORKED OVER AND THE NARCISSI BULBS ARRANGED IN IRREGULAR FASHION.

PLANTING BULBS IN TURF.

THE naturalisation of the more popular bulbous subjects is a matter little understood by the majority of amateur gardeners to-day. They are so accustomed to plant their bulbs in beds and borders round about their homes, and few seem to realise the great possibilities of the different subjects when planted in the grass and in other equally natural positions.

There are so many bulbs that take kindly to this natural method of employing them; and I know of no more fascinating picture than a series of beautiful colonies of hardy bulbs in flower in the bright days of our English spring season. There are plenty of other ways of growing bulbs than in the garden proper, and in both large and small gardens it should not be difficult to find places where the different subjects can be grouped in natural fashion. Orchards should be taken full advantage of, and cool meadows also utilised for this purpose. What is prettier in the earlier days of spring than a free display of the Crocuses, in colours pleasingly diverse, on a grassy slope near to water or under trees before the leaves are evolved? Invariably their vegetation is apparent long before the leaves on the overhanging branches of the trees could cause them inconvenience. This is a brilliant subject, with which a beginner may commence operations with the sure prospect of achieving success.

The Snowdrops when naturally grouped on the greensward make one of the most beautiful floral pictures imaginable. They, too, are seen to advantage on soft lawns and grassy banks as well as under trees, where they appear to luxuriate. Snowdrops have a preference for deep moist soil, and partial shade such as trees afford.

The Grape Hyacinth (Muscari) is a very pretty subject for naturalising, although it is seldom seen planted in this way. The different varieties of this charming subject in varying tones of colour create beautiful clouds of blue that are quite distinct and novel in their effect. The Grape Hyacinths, being so pretty and dainty in their display, place the Scillas and the Chionodoxa (Glory of the Snow) at some disadvantage. Good results invariably follow the planting of these two subjects, however, and those who have opportunities of employing them should not fail to do so. The Snowflakes (Leucojum) are very pretty bulbous plants having Daffodil-like leaves and flowers nearly like Snowdrops. The Spring Snowflake, blossoming in March, has white flowers, tipped green, and is fragrant. Its botanical name is Leucojum vernum. When planted in grass or under trees in similar fashion to the Snowdrops they are very charming. Star of Bethlehem, better known, perhaps, by the botanical name of Ornithogalum, is a subject specially suitable for naturalising in grass, woodland borders, or the wild garden. The bulbs should be grouped 3 inches apart in irregular colonies for effect.

The Snake's-head Fritillary (Fritillaria Meleagris) is a quaint and curious subject, and does well on grassy banks or planted in turf where the soil is fairly moist. Not over-large groups of this dainty and elegant subject are a distinct acquisition to this aspect of gardening. For very early displays the Winter Aconite (Eranthis) is without an equal. This tuberous-rooted plant belongs to the Buttercup order, and is frequently met with in large establishments, where it is grown extensively in turf under the

1.—A SQUARE OF TURF CUT AND LIFTED PREVIOUS TO PLANTING THE BULBS.

3.—TWO SQUARES OF TURF CUT OUT, THE SOIL FORKED OVER AND THIS AREA GROUPED WITH CROCUS CORMS. THIS SYSTEM OF PLANTING MAY BE CONTINUED OVER ANY SUITABLE AREA.

shade of trees, in woodland borders and on grassy slopes. Its bright yellow blossoms are most effective immediately the hard weather is an experience of the past. The method of planting the small tubers is to scatter them about and plant them where they lie. This subject flowers from January to March.

One of the best and most popular subjects for naturalising is undoubtedly the Narcissus. This now gives us infinite variety and delightful variations of form and colour. Many of the better Narcissi can now be procured so cheaply that there is no reason why they should not be planted very extensively where there is opportunity for so doing. The most successful cultivators have planted the Star Narcissus in large variety, and these have succeeded beyond expectations. In hedgerows, loamy fields, in woodland gardens or in lawns, this subject does extremely well, but the setting of the rich green turf is undoubtedly the more natural position. Although mention has been made of the Chalice-cupped or Star Narcissi, we must not forget the claims of the trumpet Daffodils, which give us so many noble-looking flowers; and besides many other chaste and beautiful forms, we have the delightful group represented by the Poet's Daffodil or Narcissus, which group has many graceful and elegant flowers. Most of these come into flower when the other Narcissi have finished their display, and are valued more highly in consequence.

The best and most successful way of growing Narcissi is to plant bold, irregular masses in the turf of the lawn or grassland. I might mention other bulbous subjects that merit recognition, but sufficient has been said to prove to the beginner that a great delight awaits those who will commence operations forthwith. The method of dealing with the actual planting of the bulbs is not by any means difficult to carry into effect. The first consideration is where to plant. In the foregoing notes I have already indicated where the different subjects will best succeed, so that any would-be grower may easily determine for himself the best position in his own garden, woodland or meadow land.

To plant bulbs in turf it is necessary first to lift the latter. The bulbs are not dibbled in as some may possibly imagine. The turf should be lifted in squares by the aid of a stout, sharp spade, and not cut too deeply. At this period the lifting of the turves is not so difficult as it was earlier in the season. The reason why the turves are cut in squares is that it is easier to lift them, and they are replaced so much more satisfactorily when the planting is finished. Although the turf is cut square, it does not follow that the bulbs are to be arranged or planted in squares also. As a matter of fact, just the opposite is the case. Fig. 1 shows a square of turf cut out preparatory to the planting. Some growers do not actually cut out the square, but leave one end of the turf, as it were, hinged on. This is simple enough. It is well to remember, however, to place each turf on the side of the square from which it is cut, as this, when returned, will ensure a better finish to the operations..

Fig. 2 portrays the actual planting of a small group of Daffodils. Previous to the planting, the soil in the square should be forked over and broken up, and where the soil is of very heavy texture a little gritty material may be added with advantage. The bulbs should be planted about 2 inches deep, and the groups should be irregular and natural in their outline, otherwise much of the charm of this method of planting will be lost. The section in the illustration is only part of what may reasonably be a long, irregular series of colonies quite informally disposed. All that is necessary to continue or complete the planting is to lift squares of turf where it is thought the prettiest effects may be ultimately produced.

Fig. 3 serves to illustrate a method of planting Crocuses on a grassy slope. Here it will be observed two turves have been lifted, and the corms disposed in irregular form throughout. Do not make the mistake of arranging the bulbs equidistant, or the natural effect will be lost. On reflection most readers will understand and appreciate the absolute necessity for ignoring the formal grouping so widely practised in beds and borders in many gardens.

Fig. 4 shows the turves replaced in position over the planted bulbs. Having arranged these satisfactorily, it is only necessary to beat down the turves firmly to complete the operation. That this shall be done in thorough fashion, work round each square, evenly beating down with the back of a spade in the manner shown in the picture. We must then patiently await the flowering season, and each succeeding season, for a few years at least, will enhance the display. D. B. C.

THE TOWN GARDEN.

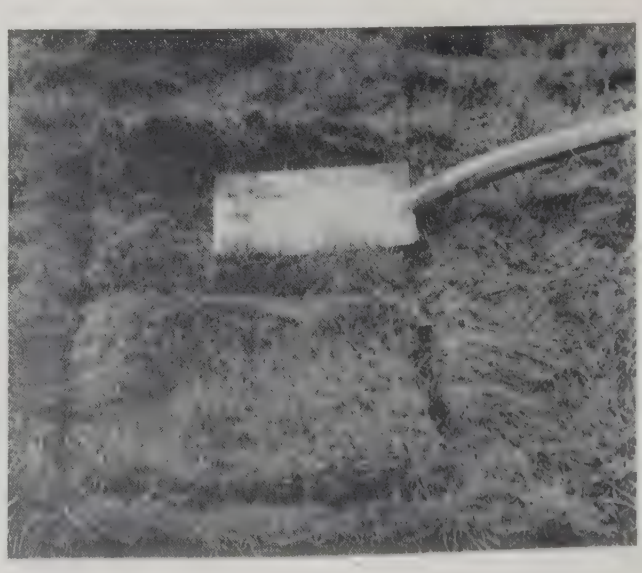
ROSE CUTTINGS.—The Rose may be multiplied in several ways, namely, by budding in summertime, by the propagation of shoots in the autumn, and by the propagation of young growths in spring. In the first instance, the cultivator must have some stocks whereon to insert the buds; in the latter instance, it is necessary to have a certain amount of heat, especially bottom-heat, for the rapid and sure emission of young roots from the tender slip; but in the present instance cuttings of the current year's growth may be inserted in the soil in the open border in any garden. So the town gardener may busy himself at once in the work of increasing the stock of some favourite varieties by inserting cuttings. A border facing north or north-east is the best for the purpose. The soil must not be too cold owing to bad drainage; but if the drainage is ample a cool medium is the most suitable for the cuttings to root into. Failing a north or north-east border, the cultivator need not hesitate to put in the cuttings in a border near the centre of the garden. A firm rooting ground is superior to a loose one; so, if the border soil be open and loose, it should be thoroughly trodden down before any cuttings are put in. There is no need to use manure; in fact, it would be a mistake to put in any.

THE BEST WOOD FOR THE CUTTINGS.—The best wood is that which has grown during the present season, but it must be ripened wood and not the late, unripe branches. The shoots ought to be about 9 inches long after the point of each has been cut off; then about 4 inches of each cutting may be inserted in the soil. If a heel—a small portion of older wood—can be secured with each cutting, there will be more likelihood of the latter forming roots.

Open trenches in the firm border soil 12 inches apart and 5 inches deep, scatter a nice quantity of coarse sand in the bottom of the trench, and place the cuttings with their base resting in the sand. Then fill in the trench with the ordinary soil and make it very firm, especially around the base of the cuttings. Use a very sharp knife in dealing with the latter. When a severe frost comes it will loosen the cuttings in the ground by lifting them; thus the base will not rest upon firm soil, and if left so the wood would probably decay. Directly the frost has gone out of the soil tread it down firmly again, and so make sure of having it pressed tightly against the cuttings.

PLANTING CLIMBING ROSES.—Such varieties as Mme. Berard and William Allen Richardson require plenty of space to grow in if they are to turn out satisfactory in every way. When grown in a restricted area too much pruning is required to keep the shoots within bounds, and then few flowers are borne on the plants. The hard pruning causes still stronger shoots to grow. In restricted areas, whether on walls or fences, it is far better to plant less robust-growing varieties. Very frequently we see Rose trees in indifferent health trained to the dwelling-house walls; probably strong plants were put in, and the reason why they turn out so very unsatisfactory afterwards is because the ground was not properly prepared for them at the beginning. Strong plants will not continue to produce strong shoots and beautiful large flowers unless they are growing in a good and sustaining rooting medium. This the cultivator must provide before he puts in a single Rose. The ground should be dug deeply and, if the soil is of a poor, sandy nature, add some turfy loam, chopped into pieces about 4 inches square, and some well-rotted manure. Even if one bushel of soil be put in for each tree, the latter will thrive well for many years. Numerous fibrous roots will take possession of the turfy loam, and when the plants are fed the stimulant will reach the roots and greatly benefit them.

ANOTHER LOVELY WALL AND PILLAR PLANT.—Jasminum officinale is a single-flowered, sweet-scented subject suitable for the covering of any building, wall, pillar or fence. It is a good plant for a town garden, and will grow in almost any position. A small quantity of old lime rubble should be mixed with the soil. When established the only attention this plant needs is watering during dry weather, occasional cutting out of the oldest wood and tying in young shoots. AVON.



4.—THE SQUARES OF TURF REPLACED AFTER THE PLANTING HAS BEEN DONE.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

ALTERATIONS to be made in the flower garden should be pushed forward as fast as time will permit, so that the work may be got through before the cold, snowy weather sets in. Walks and gravel paths will, in some soils, require good drainage and every precaution taken to make the whole firm and neat; and less drainage will be needed if the natural soil is shallow and resting on a good depth of gravel. Flower-beds to be altered and new ones to be made must not be overlooked, remembering that with the new year each day brings its own work in other departments, and which must not be neglected if good crops are to be expected.

Evergreens for decorative purposes, both in beds and vases, should be placed in their winter quarters. Aucubas, Euonymuses and many evergreen shrubs of neat growth will make a good effect where the beds are expected to be clothed in winter and spring; and intermixed with these a few bulbs, Wallflowers, Forget-me-nots, Violas, Alyssums, Aubrietias and similar plants, will brighten up the beds at a time when it is most needed. In cold parts, and where the climate is somewhat unfavourable, Roses and many other plants will be best planted in March or April, the grower being content at this season with the trenching, draining and preparing the beds.

Ranunculus —If the soil is not too heavy and wet, and a good planting of these is made at the present time, a bright show of flowers in spring will be the result. For these and Anemones the land requires a good dressing of well-decayed manure. Plant from 2 inches to 3 inches deep and about 6 inches to 8 inches apart, according to the size and strength of the roots. Place young Hollyhocks (in pots) in cold frames, as although the plants may stand outside and suffer no harm in some winters, it is preferable to have a quantity potted and kept in cold frames till spring and then planted in good, deeply worked soil, and not too cramped for room. Plants so treated should produce excellent spikes of bloom. All tender shrubs should be protected before any damage occurs.

HARDY FRUITS.

Morello Cherries and other fruit trees on north walls should now be taken in hand, and the pruning and tying pushed forward before the days get too cold. Do not overcrowd with useless shoots, but aim to have the whole of the wall space covered from the bottom to the top with useful fruiting shoots. See that the trees are evenly balanced, take care not to damage the bark with the hammer, and allow ample space between the bark and ties for expansion.

Orchards.—When planting young trees see that the stocks on which they have been worked are healthy and free. Those planting on a large scale will do well to get advice from a good fruit-grower and plant only those that succeed well in that neighbourhood. Cheap plants purchased at sales are sometimes dear to those who expect to reap good crops from the land on which they have been planted.

KITCHEN GARDEN.

As fast as the land is cleared lose no time in getting manure wheeled to the different quarters. Frosty weather should be taken advantage of. Work the manure well down as the trenching proceeds, so that in dry weather the roots of many vegetables may get out of reach of the drought, and the watering will be greatly lessened and the crops, in addition, much superior.

H. MARKHAM.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

PLANT DEPARTMENT.

STOVE PLANTS.—Cuttings of Coleus may now be put in, as these strike readily in moderate warmth; the old plants may then be discarded. Introduce batches of Poinsettia, Euphorbia jacquinæflora, Plumbago rosea, Justicia and other winter-flowering plants to warmer quarters from time to time. Afford these and any other plants approaching the flowering stage weak stimulants regularly. Allamandas, Bougainvilleas and Clerodendrons showing signs of cessation of growth should now be very sparingly watered. The first-named may be pruned to economise space, but the others are best left intact until spring. Gloriosas and all other kinds of tuberous-rooted plants that are losing their foliage are best kept on the dry side, and may be finally stored beneath stages or other convenient positions where they are free from drip and close proximity to hot-water pipes.

Orchids.—In mixed collections of these, a few species, as Cattleya labiata autumnalis, C. bowringiana and Dendrobium Phalænopsis, will be making a good display of bloom. If surface dressing was done some time ago, the new material will have a tendency to retain moisture; consequently watering should be carefully and sparingly performed. Cypripediums of the insigne section, on the other hand, must never feel the want of water, and long-established or rootbound plants are greatly benefited by occasional doses of manure, than which nothing is safer than a peck of sheep-manure put into a bag and immersed in thirty gallons of water, using this when quite clear.

Plants for Table Decoration should have a position fully exposed to the light, and if space is limited, the raising of some upon inverted pots makes a considerable difference in this respect. Frequent turning of the plants prevents any that are rootbound from rooting into the ashes or other material used beneath them, and also tends to keep them erect in growth; the latter is very essential in lean-to houses. On very dull days syringing is best dispensed with; but when bright, vigorous applications of tepid water will promote health and prove discomforting to insects.

THE FLOWER GARDEN.

Sub-tropical and Half-hardy Plants, such as Fuchsias, Abutilons, Cannas, Aloysia citriodora, specimen Heliotropes and some few others that it is desired to keep for another year, should now be housed; but as space under glass is likely to be scarce for a few weeks, the plants if placed against a wall or building, where temporary coverings may be used if necessary, will probably keep them safe.

Gladioli may be similarly treated while the stems yet adhere to the corms, the separation being quite easily effected later on. Some varieties, as Colvillei and brenchleyensis, may remain in the ground if desired in favoured districts, some coal-ashes, Fern or branches being placed over them during severe frosts.

FRUIT HOUSES.

Vineries.—Houses containing Grapes will require very careful attention to heating and airing during the decay of the foliage, the evil this year being intensified by the heavy and almost continuous rainfall. In the neighbourhood of large towns fog must be excluded by all possible means; hence the ventilators must at times be closed. Otherwise, a little air at the apex of the house and slight warmth in the pipes, maintaining a temperature at about 50° in dull weather and at night, is likely to secure the best results. On bright, dry days air freely and apply extra warmth for the time being, but revert to lower temperatures afterwards, or shrivelling of the berries will ensue.

JAMES DAY.
(Gardener to Sir Malcolm M'Eacharn.)
Galloway House, Garlieston, Wigtownshire.

THE EDITOR'S TABLE.

A NEW WIRE PLANT SUPPORT.

Messrs. Stuart Low and Co., Bush Hill Park, Enfield, send us a new wire plant support which will, we think, prove very useful indeed. It is a simple yet clever contrivance, and is quickly and easily secured to the stake. Messrs. Low write: "We are forwarding you samples of a new plant support, invented and patented by our Mr. Allwood, and which we are placing on the market as 'Allwood's Patent Plant Support.' The originality and distinctiveness of our support is that the stick is in the centre of the plant; the support fixes on to almost any size stick with a spring or clip, while the outer loop which supports the plant is adjustable, and can be made to fit a plant of any size. You will see the advantages of a wire support over ordinary stakes and raffia. The supports are placed in position in less time than tying, and support the plants for the entire season, while the stems are always straight. Also the flowers can be cut in much less time, while the supports themselves last for years."

VITIS LEAVES FROM REIGATE.

I send you a few leaves of Vitis Coignetiæ to show you the lovely colours they assume in the autumn. Planted several years ago on the west side of the house, the specimen has, when the sap has gone down, to be severely cut back to keep it off the chimney stacks, and away from Roses Carmine Pillar on one side and Gustave Regis on the other. The leaves began to change colour three weeks ago or more. On the same wall is a fine plant of Parrotia persica, six years old, but the leaves are still the richest green, and probably the frost will come before they begin to turn. They have never turned very much so far, but are very handsome all the summer.—J. A. D., *Reigate.*

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Bulbs to grow in North Queensland (*E. F. S. M.*).—While it is quite probable that the well-known bulbs you suggest, such as Narcissi, Tulips and Snowflakes, will thrive under the conditions you mention, their flowering period will be a very short one, not more than a few days at the outside. It is probable that drought and heat together will be too much for the majority of Lilies; but if you can provide shade and a fairly constant water supply, you may try L. auratum, L longiflorum Harrisii, L. Brownii, L. Henryii and L. sulphureum. Bulbs which will better repay your trouble and expense, however, are Hippeastrums (garden varieties), Albuca Nelsoni, Amaryllis Belladonna, Brunsvigia gigantea, B. Josephinæ, Crinum Moorei, C. Augustum, C. giganteum, C. asiaticum, C. longifolium and C. Macowani, Cyrtanthus hybridus, Eucharis amazonica, Freesia refracta and varieties, Gladioli (any kinds), Galtonia candicans, Hæmanthus albiflos, H. coccineus,

H. magnificus, H. Katherinæ and H. multiflorus, Lycoris aurea, Nerine curvifolia and variety Fothergillii, N. flexuosa and any garden form, Lachenalias in variety, Sprekelia formosissima and Watsonia meriana. You would probably be able to obtain a great deal of useful information on this matter by applying to Mr. J. F. Bailey, Director, Botanical Gardens, Brisbane, or to Mr. H. J. Johnson, Secretary, Acclimatisation Society's Gardens, Brisbane. They would also be able to inform you as to the best people to obtain the plants from, best means of shipment and various other items, if you do not wish to obtain the bulbs in England. If you wish to obtain them at home, apply to one of the best firms of nurserymen for them, and they will understand your requirements.

How to treat a Fuchsia (*Ignorance*).—You had better protect the plant by mulching at the base either with ashes or light manure. It is quite likely that, following a season like the present with so little sun, the plant will suffer if severe frosts are experienced. We are unable to comply with your request for "a plan or plans for border," but if you send particulars of its length and width we may help you by naming some suitable plants for the same. If you already have herbaceous plants in the border, please say so, and to what extent; also give the size of the portion you have now in mind to deal with.

THE GREENHOUSE.

Information about Aralia (*Mrs. A. J.*).—Aralia Sieboldii can be induced to root in the manner referred to by you, but it will take a considerable time, and it will be a difficult matter in a dwelling-house to maintain the moss in a uniform state of moisture, so necessary for the production of roots. In the case of an old hard stem roots are not readily produced, so the layering (for it is really a modification thereof) must be done where the wood and bark is moderately soft. At the spot selected, a cut should be made by inserting the knife and bringing it upwards for about 3 inches. This must be repeated three times, thus leaving three tongues of bark with a little wood attached. A small piece of stick or broken crock must be inserted underneath each tongue to prevent it from closing. This will arrest the flow of sap and form the spot whence roots will be produced. In making these cuts care must be taken that they do not take up more than one-half of the stem—that is to say, between the cuts there must be a strip of bark untouched the same width as the cut portion. This is very necessary, as the unmutilated portion will have to supply the entire head with nourishment till roots are pushed forth. The month of March will be a good time to do this, and the cut portion must be bound round with a ball of moss as large as a 6-inch pot. It will be at least six months before the top can be cut off from the stem, and, as above stated, the moss must always be kept moist. Instead of attempting to induce the top of the Aralia to root, we should be inclined to plant it outdoors, as it is quite hardy, and obtain a smaller plant for indoors.

Bulbs in fibre with moss covering (*W. H. Bolton*).—Our correspondent asks us if we think moss dyed green a suitable covering to put upon the surface of pots or bowls in which bulbs are grown. Speaking for ourselves we should say, "No." It is always a jar to see the natural and artificial mixed up in the way suggested. On the other hand, good fresh moss we consider an excellent finish to nearly all bulbs which are grown in pots, bowls or vases. If two pots of the same Daffodil (in flower) were placed side by side, nine people out of ten would, we think, prefer that pot in which the soil was nicely covered with good fresh moss to the one without any. It is probably more artificial to have bulbs growing in borders than in grass or from some kind of green carpet. Because our eyes are more accustomed to see them growing out of soil than from grass or moss, it is no reason why we should think this the only way they look natural.

MISCELLANEOUS.

Names of plants.—*C. F. A.*—Elæagnus angustifolius. It is quite hardy and will grow in any good garden soil.——*Mrs A. Thomson.*—Pyrus Aria (White Beam Tree), Carpinus Betulus (Hornbeam) and Cratægus tomentosa.——*R. Mott.*—Adiantum veitchianum and Polypodium aureum.——*E. Thorn.*—Pyrus Aria (White Beam Tree).——*W. Harris.*—1, Send in flower; 2, Acer dasycarpum; 3, Spiræa lindleyana; 4, send in flower; 5, Lamium maculatum.——*H. Henderson*—Rhamnus catharticus. Pear rotten when received; Apple not known.——*M. M. N. D.*—Salvia ringens requires cool greenhouse treatment and to be potted in sandy loam. It usually flowers in summer.——*Mrs. Clements.*—Probably Fraxinus excelsior nanus. A piece of twig should be sent in order to enable us to identify correctly.——*A. W. Newport.*—Saponaria officinalis flore-pleno. We regret we cannot name the garden form of Chrysanthemums.

Names of fruit.—*R. W. R.*—The Pear is a remarkably fine fruit of Beurré Diel.——*H. Ford.*—Apples: 1 and 3, Cox's Orange Pippin; 2, King of the Pippins; 4, Northern Greening; 5, Jefferson; 6, Lamb Abbey Pearmain. Pears: 1, Marie Louise d'Uccle; 2, Brown Beurré; 4, Glou Morçeau; 5, Swan's Egg; 7, Josephine de Malines.——*R. Buston.*—Pear Broome Park.——*Rev. E. R. I.*—1, Norfolk Beaufin; 2, Adam's Pearmain. The shrub is Ligustrum japonicum.——*J. L. N.*—1, Rotten when received; 2, poor specimens of Louise Bonne of Jersey; 3, Brown Beurré; 4, Winter Nelis; 5, Catillac; 6, Worcester Pearmain.——*F. E. Robeson.*—1, A fine specimen of Uvedale's St. Germain; 2, Josephine de Malines; 3, Comte de Lamy; 4, Cox's Orange Pippin; 5, Scarlet Nonpareil; 6, Kedleston Pippin.——*A. J. Avenell.*—Round Pear, Brown Beurré; long Pear, Louise Bonne of Jersey.——*E. P.*—1, Kedleston Pippin; 2, Fearn's Pippin.

SOCIETIES.

NATIONAL CHRYSANTHEMUM SOCIETY'S EXHIBITION.

THE great autumn show arranged by the above society was held at the Crystal Palace on the 3rd, 4th and 5th inst., and, considering the season, a very good display was made. Large-flowered Japanese varieties were most extensively shown, competition being weakest in the incurved, Pompon and plant classes. Singles, too, were not so freely shown as they have been for several years past. Excellent arrangements were made by the secretary, assisted by an enthusiastic committee. At the luncheon, held during the afternoon of the first day in honour of the judges, the president, Sir Albert Rollit, LL.D., D.C.L., occupied the chair, and referred in enthusiastic terms to the work being done by the society, and hoped that it had now weathered the worst of the storm.

For a floral display of Chrysanthemums and suitable foliaged plants in pots, with the addition of cut blooms and any appropriate cut foliage, the first prize was awarded to Mr. W. Howe, gardener to Lady Tate, Park Hill, Streatham Common, for a splendidly arranged group of well-grown material, this being the only exhibit in the class.

For twelve vases of Japanese blooms, distinct, the competition was good, the first prize being well won by Mr. W. Iggulden, Lock's Hill Nurseries, Frome, who staged some very good blooms indeed. Some of his best were C. H. Totty, Lady Talbot, W. Gee, Gladys Blackburne, Mrs. A. T. Miller and Reginald Vallis. Second honours went to Mr. G. Hall, gardener to Executor of Lady Ashburton, Melchet Court, Romsey, Hants, whose blooms were also good, but smaller than those in the first-prize collection. Algernon Davis, Mrs. A. T. Miller, F. S Vallis and Mme. P. Radaelli were four of the best. Third and fourth honours were won respectively by Mr. W. Higgs, gardener to J. B. Hankey, Esq., Fetcham Park, Leatherhead, and Mr. A. Smith, Convent Gardens, Roehampton.

The first prize and challenge trophy, offered to affiliated societies for a display of cut Chrysanthemums arranged on a table, was won by the Dulwich Chrysanthemum and Horticultural Society for an attractive display.

OPEN CLASSES.—CUT BLOOMS AND PLANTS.

For thirty-six incurved blooms, distinct, Mr. W. Higgs, Fetcham Park Gardens, Leatherhead, was the only exhibitor, but the judges awarded him first prize. His blooms were rather small, but of good shape and colour, Buttercup and Clara Wells being two of the best.

There were six entries in the class for forty-eight Japanese blooms, distinct, Mr. T. Waller, gardener to A. C. Hammersley, Esq., Abney House, Bourne End, coming out first with a very fine lot of blooms, among which we noticed F. S. Vallis, C. Montigny, Mme. Gustave Henry, Miss Faith Moore and Lady Talbot as being particularly good. Second prize was secured by Mr. T. Stevenson, Woburn Place Gardens, Addlestone, who was very close to the first-prize exhibitor, thus proving that the whole of his energies are not devoted to Sweet Peas. Mme. G. Rivol, Lady Talbot, Master James and F. H. Wallace were four of his best. Third and fourth prizes were won respectively by Mr. G. Hall, Romsey, and Mr. W. Mease, Downside Gardens, Leatherhead.

For twelve vases of incurved blooms, distinct, there was only one exhibitor, namely, Mr. W. Higgs, Fetcham Park Gardens, Leatherhead, but his blooms were sufficient to justify the judges in awarding him first prize.

For twenty-four Chrysanthemum plants, six varieties, there were three entries, Mr. H. J. Hedges, Kirkdale Nursery, Sydenham, securing the premier award for small but well-grown plants. Second honours went to Mr. F. Brazier, Caterham, whose varieties were mostly of the better class singles. Mr. T. W. Stevens, gardener to W. H. Stone, Esq., Laurie Park Gardens, Sydenham, was third.

For six bush plants of single varieties, distinct, not less than a given size, Mr. G. Bowyer, Laurie Park, Sydenham, was the only competitor and secured third prize, his plants not being quite far enough advanced.

There were only two entries in the class for six Japanese blooms, distinct, to be chosen from varieties sent out by Messrs. Wells and Co. during 1908 and 1909, trade growers excluded. Mr. W. Mease, Leatherhead, was a good first, his varieties being Pockett's Surprise, Rose Pockett, C. H. Totty, Merstham Blush, Leslie Morrison and Mrs. L. Thorn. Mr. G. Hunt, gardener to Pantia Ralli, Esq., Ashstead Park, Epsom, was second, his flowers including good specimens of Mrs. L. Thorn and Rose Pockett.

OPEN CLASSES.—CUT BLOOMS.

The President's Cup, offered for twenty-four Japanese blooms, distinct, brought forth six entries, Mr. T. Waller, Abney House Gardens, Bourne End, winning the cup with a very nice lot of full blooms; Mrs. A. T. Miller, F. S. Vallis, Lady Talbot and President Viger were four of the best. Mr. T. Stevenson was a good second, his flowers being large and moderately well developed. We specially noticed Mr. C. Penford, Mrs. A. T. Miller and James Lock. Third, fourth and fifth prizes were won respectively by Mr. W. Rigby, 60, Wickham Road, Beckenham; Mr. J. Kirkwood, Grass Farm House Gardens, Finchley; and Mr. W. Iggulden, Frome,

For twelve Japanese, distinct, there were seven entries, first prize being well won by Mr. W. Rigby, Beckenham, with an excellent dozen, among which Mrs. C. H. Totty, Mrs. N. Davis, Mrs. L. Thorn and Lady Talbot specially appealed to us. Second prize fell to Mr. J. Kirkwood, Finchley, who also staged some excellent specimens, F. S. Vallis and Mrs. A. T. Miller being particularly good. Third, fourth and fifth prizes were won in the order named by Mr. W. Mease, Mr. G. Hall, Romsey, and Mr. G. Mileham, Emlyn House Gardens, Leatherhead.

For one large vase of five Japanese blooms, white, one variety only, there were five entries, Mr. T. J. Broom, Guy's House Gardens, Holyport, being first with Mrs. A. T. Miller; Mr. H. J. Hedges, Sydenham, second, with Mrs. Norman Davis; Mr. D. Fairweather, Canterbury, third, with Mrs. R. H. B. Marsham; and Mr. G. Mileham, fourth, with Mrs. A. T. Miller.

In a similar class for yellow flowers there were only two entries, the best vase being shown by Mr. D. Fairweather, whose variety was Mrs. F. S. Vallis, Mr. W. Iggulden, Frome, being second with Mrs. W. Iggulden.

In a similar class for any colour except white and yellow, four vases were staged, the best blooms being some good examples of Mme. P. Radaelli, shown by Mr. W. Iggulden; Mr. G. Mileham was second with J. Lock; Mr. D. Fairweather, third, with Reg. Vallis; and Mr. G. Hall, fourth, with Miss F. W. Vallis.

For twelve incurved blooms, distinct, there were three entries, first prize being won in good style by Mr. W. Mease, Leatherhead, for an even though rather small lot of blooms, Embleme Poitevine and Clara Wells being two of the best. Second and third prizes went respectively to Mr. W. Higgs, Leatherhead, and Mr. J. A. Humphries, Fairford, Gloucester.

In a class for six blooms, incurved, one variety only, there were five entries, Mr. W. Higgs being first for good examples of the white H. W. Thorpe. Mr. G. Hunt, Epsom, was second with Clara Wells; Mr. G. Mileham, third, with the rich yellow Buttercup; and Mr. W. Mease, fourth, with Romance.

Mr. J. H. Humphries, Hill House Gardens, Maisey Hampton, Fairford, Gloucester, was the only exhibitor in a class for six vases of disbudded Chrysanthemums as grown for market, but his blooms were sufficiently good to secure first prize. Money Maker, white, and Caprice du Printemps, bright rose, were the two best.

For twelve large, reflexed blooms, to be shown on boards, there were two entries, the first-prize collection being shown by Mr. T. J. Broom, Guy's House Gardens, Holyport, and the second by Mr. J. A. Humphries.

For twenty-four large Anemone blooms, Japanese included, eight varieties, there were three entries, the premier award going to Mr. A. C. Horton, North Frith, Tonbridge, who had a beautiful lot of flowers, Mrs. Shimmins and Sir W. Raleigh being particularly noticeable. Second and third prizes were won respectively by Mr. A. Henderson, Eccles Hill, Bromley, and Mr. J. A. Humphries.

In a similar class for twelve blooms, Japanese excluded, there were also three entries, Mr. A. C. Horton again being the champion with well-grown flowers. Second and third honours fell respectively to Mr. J. A. Humphries and Mr. A. Henderson.

There were also three entries in a similar class for Japanese Anemones, Mr. A. C. Horton also securing the premier position here, Mr. J. A. Humphries and Mr. A. Henderson following in the order named.

For six vases of Pompons two competitors tried conclusions, Mr. F. Fitzwater, Bushey Lodge Gardens, Teddington, being a splendid first with very superior flowers. Compte de Morney, Mlle. Elise Dordan and Prince of Orange were superb. Mr. J. A. Humphries was second with well-coloured blooms, the yellow W. Sabey being particularly rich.

In a similar class for Anemone Pompons, Mr. Fitzwater was the only exhibitor and was awarded first prize.

The class for twelve vases of single varieties, distinct, brought forth only two entries, the best of these being shown by Mr. F. Brazier, nurseryman, Caterham, who staged some splendidly grown flowers. Mary Richardson, G. Nottel and Charles Graves were very fine indeed. Mr. D. Fairweather, gardener to Marquess Conyngham, Bifrons, Canterbury, was the other exhibitor and deservedly secured second prize, his flowers being particularly bright and pleasingly arranged, these being a batch of seedlings of considerable merit.

In a similar class for six vases there were three competitors, first prize going to Mr. T. Stevenson, Addlestone, for a beautiful lot of well-grown flowers, Miss E. Cannell, Mary Richardson, White E. Pagram and Bronze E.

Pagram particularly attracting our attention. Mr. J. A. Humphries and Mr. F. Brazier followed in the order named.

FLORAL DECORATIONS.—OPEN CLASSES.

Six tables were arranged in the class for tables of yellow and bronze blooms only, first honours going to Mrs. T. W. Stevens, Sydenham, for a daintily arranged display. Second prize went to Miss A. Robinson, Carshalton, whose table also showed much taste. Mrs. A. D. Ruff, Sharnbrook, Beds, was third.

In a similar class, for any colour blooms other than yellow or bronze, competition was also good, the first prize and also the piece of plate offered by Mr. Felton for the best table in the above two classes being won by Mrs. F. Brewster, 12, St. Peter's, Canterbury, who had a very charming design of white decorative and Pompon Chrysanthemums, Asparagus plumosus and Vitis inconstans. Mr. T. W. Stevens was second with an arrangement of crimson and white single flowers, Mrs. W. Webb third, and Mrs. F. Robinson fourth.

For two vases of Pompon or Anemone Chrysanthemums arranged with foliage, Mr. J. A. Humphries was the only exhibitor and was awarded first prize.

For a large vase of single Chrysanthemums, mixed shades of white varieties, arranged with any foliage for effect, there were four entries, the prizes being won in the order named by Mr. F. G. Oliver, Mr. J. A. Humphries and Mr. E. Dennis, Pollards Park Gardens, Chalfont St. Giles.

In a similar class for mixed shades of yellow or bronze the prizes were won respectively by Mr. J. W. Harrison, Sydenham, Mr. F. G. Oliver and Mr. E. Dennis.

For a vase of mixed shades of pink, single varieties, there were four entries, the prizes going to the following in the order given: Mr. J. W. Harrison, Mr. F. G. Oliver and Mr. E. Dennis.

For one large vase of single, spidery, or thread-petalled Chrysanthemums, with any foliage, there were two entries, Mr. F. G. Oliver, Tollington Park, N., being first and Mr. J. A. Humphries second.

For a basket of natural autumn foliage or berries, Miss J. Martin, 9, Lancaster Road, South Norwood, was first out of three competitors, Mrs. F. Brewster, 12, St. Peter's, Canterbury, and Mr. J. A. Humphries following in the order named.

AMATEUR CLASSES.—CUT BLOOMS.

For eighteen Japanese, distinct, there were two entries, Mr. W. Rigby being first and Mr. E. Dennis, Chalfont St. Giles, second.

For twelve Japanese, distinct, competition was good, first prize going to Mr. W. Rigby, Beckenham, Mr. W. Hulton, Dulwich, and Mr. T. W. Stevens, Sydenham, following in the order named.

Some of the other amateurs' classes were moderately well contested, but lack of space prevents detailed mention of these.

FRUIT AND VEGETABLE CLASSES.

For three bunches of black Grapes (not Gros Colmar), Mr. A. C. Horton, North Frith, Tonbridge, was first with large and well-finished bunches of Mrs. Pince's Muscat. Second prize went to Mr. W. Lintott, Morden Park Gardens, Caterham, for splendid bunches of Alicante, and third prize was won by Mr. W. Howe, Streatham Common, who also showed Alicante.

For three bunches of Gros Colmar Grapes there were two entries, Mr. A. C. Horton being first and Mr. W. Howe second.

For six dishes of dessert Apples, Mr. W. Lintott was the only exhibitor, and was awarded first prize for a moderately good group. Mr. J. Clement, Commonwood House Gardens, near Chipperfield, was the only exhibitor of six dishes of culinary Apples, and received first prize.

There were three entries in the class for six dishes of dessert Pears, first prize going to Mr. A. C. Horton for a very fine collection indeed. Second and third prizes were won respectively by Mr. H. C. Gardner, Ruxley Lodge Gardens, Claygate, and Mr. W. Lintott.

Three exhibitors entered for Messrs. Webb and Sons' prizes, offered for a collection of vegetables, Mr. E. Beckett, gardener to the Hon. Vicary Gibbs, Aldenham House, Elstree, being first; Mr. A. Basile, Woburn Park Gardens, Weybridge, second; Mr. W. Waterton, Heath Farm House Gardens, third, and only about one point behind the second-prize winner.

The prizes offered for vegetables by Messrs. Robert Sydenham, Limited, were, as usual, well contested, some very fine displays of high-class vegetables being made.

MISCELLANEOUS EXHIBITS.

Pride of position belongs to H. J. Jones's Nurseries, Limited, Lewisham and Keston, for a superb group of cut blooms, disposed in delightful fashion in large Bamboo stands, ornamental vases and other receptacles. This group was set up and occupied the whole of the front of the huge orchestra of the Crystal Palace, and was the most conspicuous feature of the show. Besides exhibition blooms there were charming representations of the decorative and single varieties. This was a most artistic creation, and won the large gold medal as well as the gold medal offered by Messrs. Clay and Sons for the best miscellaneous exhibit in the show.

A large gold medal was also won by Mr. Norman Davis, Framfield, for a beautiful group of cut blooms set up artistically by this well-known grower. Large stands of grand exhibition varieties, such as Miss Lillian Hall, Mrs. N. Davis, Lady Edward Letchworth, Mrs. A. T. Miller and George Hemming, were largely represented, and well deserved the recognition this grand exhibit received.

Mr. Philip Ladds, Swanley Junction, Kent, set up a handsome oval group of the better market varieties, among which were interspersed Ferns, Palms and other foliage plants for effect. This was a splendid effort for a market grower, and well deserved the gold medal awarded.

A similar award was made to Messrs. H. Cannell and Sons, Swanley, for a long and comprehensive table group, which included splendid singles, exhibition and decorative varieties and a fine array of Zonal Pelargoniums.

Mr. W. J. Godfrey, Exmouth, Devon, pinned his faith to the large exhibition blooms and a pleasing array of single varieties. This was a large table group and included all the leading sorts. Gold medal.

A gold medal was also awarded to Messrs. W. Wells and Co., Limited, Merstham, Surrey, for a superb group of singles, represented by splendidly grown plants.

An exceedingly pretty display of market Chrysanthemums was made by a large group of well-grown plants grown in 5-inch pots, and bearing nine to a dozen or more really good flowers, by Messrs. Butler Brothers, Bexley Heath. The plants revealed splendid cultural skill, and the exhibit was an attraction to many visitors. Silver-gilt medal.

Mr. Frank Brazier, Caterham, Surrey, made an interesting exhibit of Chrysanthemums and Michaelmas Daisies in a pretty group. Silver medal.

Messrs. John Laing and Sons, Forest Hill, S.E., set up a triple group of crested single Begonias that were highly meritorious for so late in the year.

A large silver medal was well won by Mr. H. W. Thorp, Durrington, Worthing, for a large table group of Japanese and incurved varieties of exhibition standard. Large silver medal.

Mr. J. Williams, Ealing, W., displayed in pleasing fashion his numerous rustic devices for setting up flowers artistically, using Chrysanthemums for this purpose.

A large silver medal was awarded to Messrs. J. Peed and Son, Roupell Park Nurseries, West Norwood, for a capital collection of Apples and Pears that were very good for the season. A similar award was made to the same firm for a group of Chrysanthemums set up in pleasing fashion on the floor in front of the large organ. Several types were represented, and the display was a welcome one.

A silver-gilt medal for British-grown fruit was rightly awarded to Messrs. H. Cannell and Sons, Swanley, for a superb display embracing a very large array of Apples and Pears. For the season the fruits were remarkably good. Colour, flavour and general quality were all that one could desire.

The exhibit of the British Columbian Government was a good one, boxes of Apples meriting the praise of most visitors. Silver-gilt medal.

Hobbies, Limited, Dereham, made another of their attractive displays of cut Roses and Roses in pots. Considering the season the display was highly meritorious. Hybrid Teas, Polyantha and other Roses were reminders of the past summer season. Silver-gilt medal.

Carnations from Messrs. John Peed and Sons, West Norwood, won a silver medal. The blooms were well grown and well set up in stately vases.

Rustic chairs, arches, garden seats, Rose poles and garden sundries were comprehensively displayed by Messrs. H. Scott and Sons, Woodside, S.E. This was an excellent exhibit and well merited the silver-gilt medal awarded.

A silver medal was won by Mr. G. W. Riley, Herne Hill, London, S.E., for a large group of rustic work, greenhouses and general garden utensils. There was much to admire in the numerous devices in chairs, garden seats, &c.

Sundries from other firms were also good, including Messrs. D. Dowel and Son, J. Haws, Michael Rains, Limited, H. Pattisson and Co., Ichthemic Guano Company, Alfred Berk and Co., G. Cook and others.

NEW CHRYSANTHEMUMS.

The floral committee of the National Chrysanthemum Society met at the Crystal Palace on Wednesday, November 4, Mr. D. B. Crane presiding. There was a good array of novelties, but only six of them received the much-coveted first-class certificate. The varieties were as follows:

Mrs. Colles.—This large single variety was appreciated for its lovely colour, which the committee described as crushed strawberry. The flowers are of good form, though rather flimsy in our estimation. For exhibition purposes and for use under artificial light it should be much in demand. Shown by Mr. H. Redden, Manor House Gardens, West Wickham.

Geo. Hemming.—This is a beautiful exhibition Japanese recurved bloom of considerable promise. It is of good proportions in depth and in breadth, having petals of medium width that recurve in even form. Colour, rosy claret—a colour much needed—with silvery reverse. Shown by Mr. George Mileham, Emlyn House Gardens, Leatherhead.

Mrs. R. Luxford.—A neatly built Japanese recurved bloom of charming form, having medium petals of good substance. Colour, bright chestnut with golden reverse. Although this was certificated as a market variety, the blooms can be grown quite large enough for exhibition. Shown by Messrs. W. Wells and Co., Limited, Merstham, Surrey.

Frances Jolliffe.—A very large and fairly attractive Japanese bloom of exhibition standard, having very long petals of medium width, curling and twisting and slightly incurving at the ends. Colour, straw yellow, shaded and lined pale rose. Shown by Mr. Martin Silsbury, Shanklin, Isle of Wight.

J. H. Greswold Williams.—Another large single variety, having several rows of fairly broad petals well disposed round a not over-large disc. Colour, bright yellow. Shown by Mr. H. Tribe, The Gardens, Bradenbury Court Gardens, Bromyard, Worcester.

Phosphorescence.—This is a free-flowering market variety of more than ordinary promise. The blooms are of good form and of medium size, and the habit of the plant is bushy and dwarf. For decorative uses this is a distinct acquisition. Shown by Messrs. Wells and Co., Limited.

NATIONAL AMATEUR GARDENERS' ASSOCIATION.

ON Tuesday, November 2, at this society's meeting at Winchester House, Old Broad Street, T. W. Sanders, Esq., F.L.S., in the chair, Mr. Chas. T. Druery, V.M.H., F.L.S., gave an interesting lecture on "Our Wonderful World." Opening with an apology for the necessarily superficial way in which so vast a subject could be dealt with in a single short lecture, he stated that his object was rather to induce increased attention to the innumerable marvels underlying all the familiar things around us, and whose very familiarity was apt to lead, not indeed to contempt, but to an entire ignoring of their truly wonderful nature. He divided his subject into four heads, viz., the air, the earth, the ocean and, the most interesting one of all, the life which existed in each. The air he described as practically forming a vast and profound ocean, at the bottom of which we lived under an immense pressure, which we did not feel because it was counterbalanced by an equal pressure from within. He described its composition, gaseous and aqueous, and how it resembled the watery ocean in its currents and whirlpools, though these latter were on a vastly greater scale. Next he dwelt upon the accepted history of the evolution of a solid, habitable world from a nebulous celestial mist, and the stages through which is must have passed ere it became as we now know it, alluding to the variety of the rocks which compose its crust and the history which these rocks unfold to the geologist and associated scientists. The oceans, all of which were practically one, were next touched upon, and the manner was described in which the great circulatory system was maintained, the tropical water sweeping north and south as vapour and returning by way of glaciers and rivers to the sea to form a slow, returning bottom current, cold as ice, to their tropical source. The final theme of the life existing in all three realms, and how it was solved from simple beginnings to the innumerable forms with which we are more or less familiar, was concluded by an allusion to perhaps the most wonderful feature of all, viz., that the only link between the sun, the immediate source of all vitality, and this world of ours was chlorophyll, the tiny green granules pervading all foliage and which alone were capable of utilising the sunbeam and transforming by virtue of its energy the inorganic salts of the earth and the carbonic acid of the air into all the foods and essentials of humanity and the animal world generally. A hearty vote of thanks was accorded the lecturer.

KENT COUNTY CHRYSANTHEMUM SOCIETY.

THIS was not quite such an extensive show as we have usually seen, but there were some remarkably fine blooms and some good miscellaneous exhibits. It was unfortunate that the society was unable to hold the show at its usual quarters, and had to have it at the Sportsbank Hall, Catford, which is quite out of the ordinary run of traffic, the attendance being consequently small. This was unfortunate both for the society and those who put up non-competitive groups.

Messrs. Cannell and Sons sent from their Eynsford nurseries a splendid collection of fruit, consisting of over 100 varieties, all of the best quality, Apples being the leading feature. Pears were also well shown.

Messrs. Sutton and Sons, Reading, exhibited a fine collection of fruits and vegetables, all of which showed the highest quality and were displayed to the best advantage.

Messrs. J. Veitch and Sons, Chelsea, made a large exhibit of foliage and flowering plants, which included many choice novelties.

Taking the competitive classes, there was only one exhibit for the president's prizes—eight Japanese, eight incurved and eight Japanese reflexed; but this was a good exhibit, and came from H. F. Tiarks, Esq., who was also one of the most successful exhibitors in several other classes.

The vase classes were well contested. C. J. Wittington, Esq., was first for two vases of two varieties, three blooms of each. For four vases, decorative varieties, S. Palgrave, Esq., came first.

There was no competition for the groups of Chrysanthemums in pots, and for the group of flowering and foliage plants there was only one; this came from Mr. Tiarks, who has been first in this class for many years.

In the class for eighteen Japanese and eighteen incurved, H. Bennett, Esq. (gardener, Mr. E. Dove), was first.

For twelve Japanese varieties, W. W. Mann, Esq. (gardener, Mr. J. Simon), came first with very fine blooms.

For the class for twenty-four Japanese blooms, eight varieties, three of each, for which a silver cup was offered and £2, the gardener of the donor of the cup (Mr. J. Rosselli) took first prize. S. Palgrave, Esq. (gardener, Mr. T. E. Brown), was also a good exhibitor.

J. C. Geischbrecht, Esq. (gardener, Mr. G. D. Judge), was another successful exhibitor.

For premier blooms Mrs. L. Thorn, from S. P. Page, Esq., secured first honours for the Japanese; and Mrs. Hygate, from H. Bennett, Esq., for the best incurved.

There were some good exhibits in the ladies' decorative classes, Miss C. Warwick, Mrs. E. Barton, Mrs. Hollands and Mrs. Hobbs being among the successful competitors.

REDHILL AND REIGATE GARDENERS' MUTUAL IMPROVEMENT ASSOCIATION.

THE members of the Redhill, Reigate and District Gardeners' Mutual Improvement Association held the third of their winter meetings in the Penrhyn Hall on Tuesday, October 26. Mr. Herbert took the chair, supported by Mr. G. Kemp. The attendance was small owing to the rough weather. Mr. Salmon of Wye College gave a very interesting illustrated lecture on spraying and its advantages, dealing with fungi of all descriptions. The meeting terminated with the usual vote of thanks.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

PLANTS FOR A SMALL GREENHOUSE IN WINTER.

WHEN first I undertook the care of a large garden (chiefly herbaceous) and a small greenhouse, it was a great problem to me how I could keep the latter always looking nice and gay; but having for many years now solved the difficulty very successfully, I will give the benefit of my experience. About the middle or end of September, when the summer beauties of the greenhouse are over, when Begonias, Coleus, Lobelia and other plants must be taken down and stored elsewhere, the greenhouse should be emptied and thoroughly cleaned preparatory to putting in the winter plants. If the staging on one side can be temporarily moved away, it will enable one to make finer effects with the Chrysanthemums, arranging them in gradations of height from the ground.

The small greenhouse being the only available place for keeping such things as need protection from frost, it is almost inevitable that it should be somewhat more crowded than is good, nor must it be kept at all warmer than is absolutely necessary; from these two causes I have found it practically impossible to grow those things which require a special amount of air and space, such as Carnations, Pelargoniums of the show section and Cinerarias, or those which require a considerable amount of heat to grow them really well, like the winter-flowering Begonias.

I will give, in order of rotation, the plants which I have found most successful:

Chrysanthemums grown from cuttings taken in January and planted out all the summer in full sunshine should be good bushy plants ready to lift carefully in September and bring into the greenhouse early in October. The varieties should be selected with care, so that one may have a succession of bloom from early October right up to Christmas. A preponderance of white and yellow, with a few darker colours, will be most effective.

Salvia splendens should be raised from seed or cuttings in early spring, grown in pots and stood in the open in full sunshine all the summer, with plentiful supplies of water and of liquid manure. All the flower-buds should be carefully nipped out until about the beginning of September. They will then give a blaze of scarlet flowers for many weeks when brought into the greenhouse in October.

Schizostylis coccinea.—These bulbs are best grown in a moist, shady spot all the summer, and if lifted and potted about the end of August, make a beautiful show in the greenhouse for October.

Primula.—Primula sinensis should be raised from seed early in the year and grown in a cold frame during the summer. These should make good plants, which will just be coming into bloom in October and will last in beauty for many months. A number of these in various shades of pink, red and white look beautiful on the raised staging of the greenhouse, or, if on the flat, raise some of your plants by standing them on inverted flower-pots. The taller forms of Primula, such as stellata, are not suitable for a small house, as they take up too much space; but a few plants of the lovely yellow P. kewensis and P. floribunda make a pleasing variety and are never without blooms.

Zonal Pelargoniums (popularly called Geraniums).—These ever-welcome flowers can be had in bloom most of the winter by bringing up some plants with a special view to this. They should be stood in full sunshine all the summer, kept carefully watered and all the flower-buds picked out six or eight weeks before they are wanted. Treated thus the plants will give plenty of bloom through the winter if they are given a sunny place in the greenhouse.

At the end of December one is generally in want of white flowers; and to supply this want nothing is so useful, I find, as a few of the plants which are now so successfully retarded. If one can get half-a-dozen clumps of Spiræa japonica, a few potfuls of Lily of the Valley and a dozen good bulbs of the grand Lilium auratum and L. longiflorum, all of which answer so well to the system of retarding, the greenhouse will be well provided with white flowers for Christmas, for one can time these plants almost to a day by following the directions usually sent out with them.

Cyclamen.—Another set of plants easily raised from seed sown in January; they require scarcely any heat, and give very little trouble to the grower; they will only be small plants the first season, but should yield abundance of bloom the second and third years.

Coleus thyrsoideus.—This delightful plant should be raised from cuttings each spring; they can be made from the old wood when the plants have finished blooming, or from the new shoots which break out after the plant is cut down. The young plants should be hardened out of doors (in pots) all the summer, given water and liquid manure freely, shortened back to keep them good bushy plants, and placed near the glass when they are brought in. They begin to flower in January, and their lovely spikes of gentian blue seem to increase in size and beauty every week, lasting quite into April. An invaluable plant for the small greenhouse.

Hyacinths and *Tulips* are most effective and easily grown. By potting in August or September, kept in the cool and in the dark for eight or ten weeks, then gradually introduced to light and warmth, they are very welcome additions to the house in January and February.

Freesias and early flowering Gladioli (G. Adonis and G. The Bride) treated in the same way, six or eight bulbs in a pot, will also come in well for the early spring months.

Azalea.—A few good plants of Azalea indica are of great effect and beauty, and can easily be made room for after the Chrysanthemums are over. They will last in bloom for two or three months, but must be carefully watered.

Imantophyllum.—These handsome plants are easily grown, and have an excellent effect with

their sword-shaped leaves and large heads of salmon red flowers, which come into bloom about March.

Genista fragrans must not be left out of the collection, both on account of its brilliant yellow colour and its delicious scent.

Narcissi.—These bulbs do not bear very hard forcing, and the easiest and best way of using them for a small greenhouse is to lift some clumps from the open ground when they first appear, keep them in a cool frame for a time, and when their flower-buds are well up bring them into the house and place near the glass. The earlier sorts, such as Golden Spur, Horsfieldii, Empress and Mme. Plemp, are the best.

Arum Lily (Calla).—This must be found room for if possible. It requires no heat, properly speaking, merely protection from frost, and if the corms are planted out in the open (in shade) for the summer, I find they make stronger and healthier plants than if they are dried off. They should be given an abundant supply of water.

Dielytra spectabilis (Dicentra) is a plant which forces very readily, and a few pots of this are very showy in the spring months.

Heaths (Erica) make a very pleasing variety of foliage and their flowers are always pretty. One of the best and most easily grown is E. hyemalis. Besides all these plants, which I am sure will keep the greenhouse gay for quite seven months, there are many little things one may add here and there to fill in odd corners, such as the pretty little pink and rose coloured Oxalis, the yellow Celsia Arcturus, which goes on giving us spikes of flowers continuously, some pots of the lovely little blue Scilla sibirica, and Chionodoxa Luciliæ to follow it. These and many others are sure to suggest themselves to lovers of flowers, as they pick up ideas here and there from what they see in their friends' greenhouses or from what they read in gardening papers.

Do not overlook the great importance of tidiness and of good arrangement—dead flowers and decaying leaves will spoil the effect of any greenhouse—and these details should be well looked after; all the flower-pots, too, should be carefully washed and dried before being used.

As to arrangement, each individual will have his own views; but to get the best effect great care must be taken to group the plants in respect to height, with due regard to combination of colours, and much pleasing variety can be made by the diversity of foliage, helped out by some good pots of Maiden-hair and other easily grown Ferns. S. C. R.

A DAFFODIL SHOW IN NEW SOUTH WALES.

THE recent Daffodil show of the Horticultural Society of New South Wales, held in St. James's Hall, Sydney, on August 26, 1909, afforded ample evidence that, even though the Sydney climate is not an ideal one for the cultivation of these charming Amaryllids, their admirers are increasing in numbers and the gardening public as a whole is taking a larger and more intelligent interest in their culture and development.

A Daffodil committee has recently been formed somewhat on the lines of that of the Royal Horticultural Society, with the object of arousing and maintaining interest, affording information and issuing certificates for meritorious productions. So far the only certificate awarded was to Mr. H. H. B. Bradley, hon. secretary of the society, for a seedling Tazetta of special excellence and exceptional earliness, the latter quality being of primary importance in a climate where, on account of the prevalent hot winds, any Narcissus whose flowering season is later than that of, say, Emperor is of questionable value. The variety just referred to was raised by crossing Apollo or Gloriosa with pollen of incomparabilis John Bull (*see* the raiser's notes on page 388 of the Report of the Royal Horticultural Society on the Third International Conference on Genetics, 1906). In consequence of prolonged seasons of drought extending over the growing periods of several past Daffodil seasons in New South Wales, the blooms exhibited were not on the whole particularly fine; but careful attention to detail and a large number of exhibits helped to render the show by far the best of the kind yet held in this State.

It is especially pleasing to note that locally raised seedlings are beginning to make themselves felt, and still more so in that many of them show a tendency to bloom earlier than their parents. Judging by results to date, there can be little doubt that the hope of the Australian Daffodil-grower must rest largely on these local seedlings, which, in view of their earlier-blooming season, should afford invaluable material for exhibition purposes sufficiently early in the season to avoid the disastrous results of the hot winds, which may generally be looked for early in September.

A very fine series of seedlings have been exhibited by Mr. Bradley during the present season, more especially in early white and yellow trumpets, and it would be a matter of considerable interest to see how some of these would rank in competition with some of the recent English creations. The feature of the show was without doubt a magnificent exhibit from Mr. L. Buckland of Camperdown, Victoria, prominent among which were White Queen, Homespun, King Alfred, Olympia, Sunflower, Sirius, Constellation, Argent, Gold Eye, Gold Chalice, Gloria Mundi, Dante, Chaucer, &c., besides a number of exquisite seedlings. To this exhibitor were awarded the championships for single blooms (Magni) Olympia, (Medio) White Queen and (Parvi) Margaret, the last-named being a magnificent true Poeticus of Mr. Buckland's own raising. This collection afforded Sydney growers the opportunity of seeing a number of varieties which have not hitherto been exhibited here, and the excellence of growth and depth of colour made local exhibitors inclined to feel a little envious of the advantages possessed by some of their brethren of the Southern State in their rich volcanic soil and more generous rainfall.

One of the most noticeable defects of Sydney Daffodil shows is the general absence of representatives of the Parvi-Coronati section, as naturally their blooming periods are too late under Sydney climatic conditions for exhibition, and so far no attempt worth mentioning has been made to force the later varieties. H. SELKIRK.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

*** *The dates given below are those supplied by the respective Secretaries.*

November 23.—Royal Horticultural Society's Exhibition of Flowers, Vegetables and Fruit, Vincent Square, Westminster. Lecture at 3 p.m., by Mr. J. A. Alexander, on "Spices."

Exhibition of Colonial fruits and vegetables.—Her Royal Highness the Princess Louise, Duchess of Argyll, has graciously consented to open the Royal Horticultural Society's exhibition of Colonial-grown fruits and vegetables at 12.30 p.m. on December 1 at their great hall in Vincent Square, Westminster. Her Royal Highness will be accompanied by His Grace the Duke of Argyll, K.T., G.C.M.G., G.C.V.O. A splendid exhibition is being arranged, and the various Colonies are endeavouring to be represented according to their respective climatic abilities at this time of year. Free cinematograph displays at frequent intervals will be given, with lectures; and on December 1, at 3 p.m., Mr. Robert Newstead, A.L.S., F.E.S., of the Liverpool School of Tropical Medicine, will deliver a lecture on the West Indian insect pests. It is to be hoped that there will be a large attendance of exhibitors. The society makes no profit whatever on these Colonial exhibitions, but rather the contrary.

A national exhibition of vegetables next year.—Many of our readers will learn with pleasure that the committee of the National Vegetable Society has definitely decided to hold a great exhibition of vegetables in the Royal Horticultural Society's Hall at Westminster on September 28, 1910. His Grace the Duke of Portland, president of the society, has intimated his desire to offer a president's prize of ten guineas as a first prize for twelve dishes of vegetables showing the highest excellence in cultivation. Several leading seedsmen have offered valuable prizes, and the committee wish that other firms who desire to do likewise will communicate with the secretary as early as possible, as the compilation of the schedule will soon have to be undertaken. In addition to the prizes mentioned above, the society will arrange classes and offer valuable prizes, so that the show promises to be an exceedingly good one, in spite of some trivial opposition from one or two sources. A good number of new members were enrolled at the last committee meeting, but more are wanted. Trials of spring Cabbages and Onions are being made by the society in three different districts, and the results of these will, in due course, be sent to members, who will also have the privilege of exhibiting at the forthcoming show. We know that a vast number of our readers take a great interest in the culture of vegetables and also in the advancement of their wider consumption, and we appeal to all such to strengthen the hands of the committee in their praiseworthy efforts by joining the society. The annual subscription is only 5*s*. The hon. secretary, Mr. E. G. Quick, Kelmscott, Harrow View, Wealdstone, Harrow, or the hon. treasurer, Mr. G. Wythes, V.M.H., Hopefield House, Windmill Road, Brentford, will be pleased to furnish full particulars to anyone who cares to write for them.

Interesting show at Romford.—The Romford and District Chrysanthemum Society held its annual exhibition of flowers, fruits and vegetables in the Corn Exchange on the 11th inst., when a good display was made by gardeners and amateurs. Mr. G. Hobday, the well-known amateur, was first in a number of classes, notably those for Grapes, collection of nine kinds of vegetables, a group of Chrysanthemum plants and for nine Onions. Mr. J. H. Sellers was first for six Leeks and second for a collection of vegetables. Mr. J. Cox, gardener to Mrs. McIntosh, Havering Park, was first in the open classes for white and black Grapes, his bunches being well finished. The same exhibitor was first for a collection of nine kinds of vegetables in the open section. Mr. F. Bradley of Brentwood was the principal winner with large Chrysanthemum blooms. Mr. W. H. Young, Mercury Gardens, Romford, staged an interesting group of Chrysanthemums, Palms, Veronicas, Ferns and Orchids, this being not for competition and adding much beauty to the show.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Rehmannia angulata.—This requires a hot, dry situation. Of a row planted at the foot of a south wall nearly all survived last winter (the most severe during the ten years I have been in Kent, with a minimum of 18½° of frost), have flowered all the summer and are still in bloom (flowers enclosed).—A. O. W., *Ulcombe, Kent.*

The proposed vegetable exhibitions.—With reference to the complaint of "A Lover of Good Vegetables" as to the action of the Royal Horticultural Society in proposing to hold a vegetable exhibition next autumn—as it were in antagonism with that proposed to be held by the National Vegetable Society—I have been in correspondence with the Rev. W. Wilks.

the secretary of the Royal Horticultural Society, on the matter, and have his assurance that no idea of antagonism whatever has actuated the council, inasmuch as it was resolved some time since to concentrate the classes for vegetables, now distributed over the whole year at the ordinary meetings, into one show in October next. Naturally, the now avowed intention of the council has caused much heart-burning, and it is unfortunate such intention was not made public at the time the National Vegetable Society was established. However, the latter society's show will be held at the end of September, and with a great effort might be made a truly national one.—ALEX. DEAN.

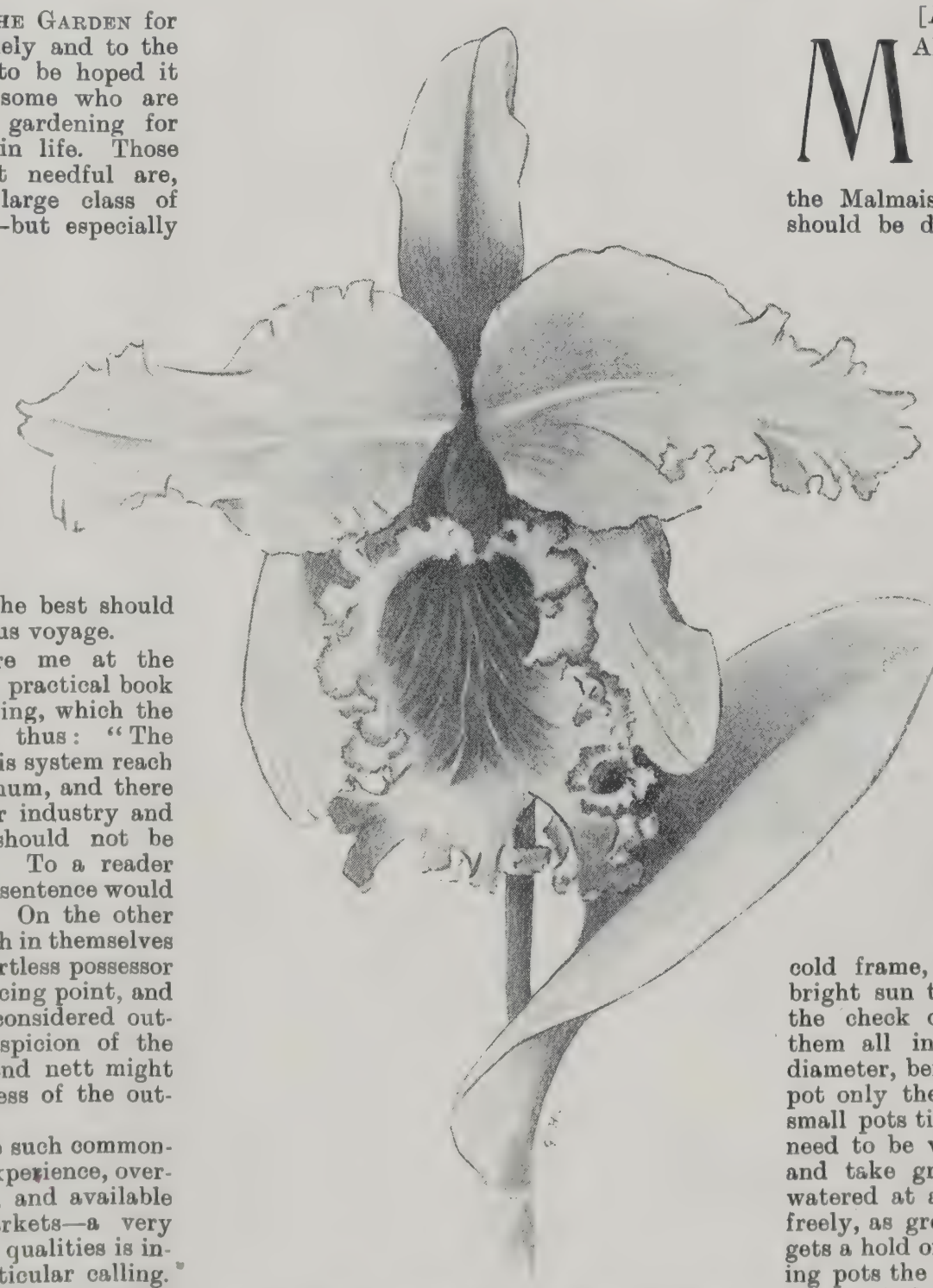
AMATEUR GARDENING FOR PROFIT.

THE leading article in THE GARDEN for November 6 is so timely and to the point that it is much to be hoped it may give pause to some who are thinking of making gardening for profit their business in life. Those to whom the warning is most needful are, perhaps, to be found in that large class of educated people of both sexes—but especially women—who have a small capital at disposal, but not enough to exempt them from making some effort towards earning their own living. To such the freedom and independence of an outdoor life, with gardening for its object, appears peculiarly alluring; and it is not surprising, in view of the optimistic and misleading statements often put forward by irresponsible folk in print and speech, that sanguine souls at a loss to know what to do for the best should be tempted to embark on a perilous voyage.

One such statement lies before me at the present moment in a review of a practical book lately published on French gardening, which the reviewer brings to a conclusion thus: "The gross returns of one acre under this system reach as much as £500 and £700 per annum, and there seems no reason why, with similar industry and science, equally good results should not be achieved elsewhere in England." To a reader with practical experience, such a sentence would convey no more than it is worth. On the other hand, those words might be enough in themselves to bring the enthusiasm of some artless possessor of a few hundred pounds to balancing point, and to turn the scale in favour of ill-considered outlay—while, quite possibly, no suspicion of the difference between gross returns and nett might arise to overshadow the brightness of the outlook.

The truth is that—setting aside such commonplace difficulties as training and experience, overcompetition and over-production, and available or, say, rather, unavailable markets—a very unusual combination of personal qualities is inseparable from success in this particular calling. The gardener for profit must possess a quick brain of more than average power, indomitable courage and perseverance, and a fine physique capable of enduring every alternation of heat and cold, wet weather and drought, with their inevitable strain upon even a strong constitution. To a natural aptitude for the work must be added sufficient capital—which ought to be larger than is often supposed—to carry him (or her) through the tedious waiting years before profit can become fact. One case only occurs to me out of many of what may be called amateur gardening for profit, in which real success has rewarded patience and skill and outlay. It is that of a woman who combines in herself to a rare degree all the qualifications given above. This lady, besides having done well in her own business career, has had the satisfaction of giving employment to a considerable number of workmen, skilled and unskilled, than which, in these days, no truer service can be offered by any of us for the welfare of the State.

Five-and-twenty years or so ago many causes combined to tempt persons of culture and energy, but of limited means, to embark on the smooth and peaceful-looking sea named Horticulture on the Chart of Labour, trusting to find a safe haven in one or other of its many ports. Their cargoes seemed to promise a rich return, and hearts beat high with hope as favouring breezes filled the sails and wafted many a laden bark across the quiet waves. But tranquil waters, alas! are too often treacherous, and, by and by, many more frail vessels launched out on that unstable sea heedless of threatening clouds and angry wisps of driving foam betokening tempest, and when



A NEW ORCHID: THE WESTONBIRT VARIETY OF LÆLIO-CATTLEYA PIZARRO. (*Much reduced.*)

at length it burst upon them, few were able to ride upon the storm, and foundered with all hands before ever they sighted land.

In plain words, at that period Horticulture was in the ascendant. Cut flowers were not yet manufactured by the hundred dozen bunches, but the new supply was creating a new demand. Prices were decidedly remunerative, and a great future seemed to open before the cultivator. Then came, to name only one set-back, overproduction, which soon wrought a change, and prices fell quickly enough to starvation point. For a time not so much was heard of amateur gardening for profit; but for some reason or other—is it on account of the new system of French intensive gardening?—there has been a recrudescence of late of the desire for outdoor life and for the growing of paying crops, and it is saddening to those who have had experience to see the unwary running into the old mistake. Hence the risks attending any venture of the kind cannot be too openly discussed by those who know and can testify that Horticulture means no easy sail over calm seas to the Port of Good Fortune.

K. L. D.

THE GREENHOUSE.

CULTIVATION OF MALMAISON CARNATIONS.

[*In Reply to "Mrs. M."*]

MALMAISON CARNATIONS differ considerably in their cultural requirements from the Tree or Perpetual-flowering kinds. These last are readily increased by cuttings; but for the propagation of the Malmaisons layering is necessary. This should be done as soon as the plants go out of flower. They must be layered in frames so that the lights can be put on in the event of heavy rains, which would soon cause a good deal of damage. The frame must have a sufficient depth of good sandy soil placed therein, into which the old Carnations can be planted. Then layer the best shoots therein, keeping them securely in position by means of pegs. Of course, each layer must be tongued. The lights must then be put on, and raised at the back in order to allow for a supply of air. It will be necessary to shade the lights from bright sunshine till the layers are rooted. In about a month to six weeks the layers will be sufficiently rooted for potting. For this purpose pots 4 inches in diameter should be chosen, and a compost made up of two parts good loam to one part leaf-mould, and sufficient coarse sand to keep the soil open. Place the plants in a cold frame, and shade for a few days from bright sun till the plants have recovered from the check of removal. Some prefer to put them all in their flowering pots, 6 inches in diameter, before winter, while other cultivators pot only the strongest, leaving the others in small pots till the new year. In any case they need to be wintered in a light, airy structure, and take great care that they are not overwatered at any time. They must be vaporised freely, as green fly is very destructive if it once gets a hold on them. For potting into the flowering pots the soil may be rougher than that for the small plants, and a rather larger proportion of loam will be helpful.

LÆLIO-CATTLEYA PIZARRO WESTONBIRT VARIETY.

THIS beautiful Orchid created quite a sensation when shown before the Orchid committee of the Royal Horticultural Society by Lieutenant-Colonel Holford, C.I.E., C.V.O., Westonbirt, Tetbury, Gloucester, in February last. The colouring is particularly bright and good, the sepals and petals being bright rosy mauve. The large labellum is very heavily fringed, the throat being deep rich yellow, suffused with carmine, in colour, a broad margin of rosy mauve giving an added beauty to this segment of the flower.

THE KITCHEN GARDEN.

THE WINTER CAULIFLOWER AND BROCCOLI SUPPLY.

FEW vegetables are more appreciated from December to May than good, compact white heads of either Broccoli or Cauliflower, and I include both, as they are so closely allied that it is difficult to divide them. Of late years our winter supply has been largely augmented by the introduction of some excellent winter types, not large but excellent for the work; but, even with the most approved varieties and methods of culture, owing to our climate we are at times unable to maintain a winter supply, and to do so one has to resort to various means, both as regards cropping and storing or shelter of the crop afterwards, and as at this season more depends upon the protection or storing, I will briefly note its importance.

Few winter Broccolis have proved more valuable to the private grower who requires as long a winter supply as possible than Veitch's Self Protecting Autumn. This is far more valuable at the season named than the large Autumn Giant Cauliflower, and there are also other very fine winter Broccolis, viz., Sutton's Michaelmas White, a plant with dwarf habit and well protected by the foliage, having beautifully compact white heads, and which invariably turn in during the early autumn. As a winter Broccoli, the old Granger Autumn White, often called the Cape Broccoli, were most valuable for an early autumn supply direct from the plants, but they did not winter as well when lifted and stored. Another excellent winter Broccoli, and one often overlooked, is the old but good Walcheren. This sown in May will give a good autumn supply. For some years before the advent of the excellent Self Protecting Autumn and Michaelmas White, I had, or was supposed, to produce Cauliflowers or Broccoli every day from Michaelmas to June—a most difficult period—and I found the Walcheren most valuable. This sown in batches from April to June was of great value, as the winter plants were lifted into frames and wintered well, and for the early spring crop I relied upon the small Snowball Cauliflower, grown in pots or frames, the seeds being sown in January in boxes and grown under glass for some time afterwards.

My note more concerns the plants now in the soil and the value of protection. Where there are goodly breadths of the early autumn Broccoli, much may be done to eke out the winter supply, and the work is well worth the trouble entailed, as when choice vegetables can be sent to table from December they are much appreciated. I found it advisable to go over the plants at least twice a week, lift with roots intact any plants that had heads, even when small, and place in frames or give other protection that might be at hand during the early winter months. So much depends upon the weather. With an open autumn it is well to leave the plants as long as possible in their growing quarters; but it often happens that, owing to the earliest lot of plants growing somewhat freely, the heads are large and less useful. This can readily be avoided by simply lifting or heeling over to the north; this arrests growth and does not deteriorate the head or flower.

All growers may not have frames at command for the winter protection, but I have often placed the foremost, or earliest supply, in sheds or cellars, where they will remain sound a long time if the place is not too damp; of course, several degrees of frost can be warded off by merely going over the plants and tying the outside leaves over the head or flower, but with severe frost this does not suffice. It is surprising what a long time lifted plants remain good. I have kept them three months in perfect health, providing the heads were not damaged or too large at the time of lifting. G. WYTHES.

TREES AND SHRUBS.

THE TAMARISKS FOR INLAND PLANTING.

SO conservative are we in our customs, and so tenacious are we of an idea after once it has taken root, that even if totally erroneous it becomes a fixture. The popular notion that the beautiful and absolutely distinct shrub Tamarisk can only be grown within touch of the sea-breath is so widespread that it has banished this lovely thing to the narrow limits of our island shores, and it is only on the rarest occasion that anyone is found sufficiently daring and original to attempt to grow the plant away from the sea border.

There are no grounds for this assumption and it is difficult to see how it arose, for even as long ago as 1597 old Gerarde, the London gardener, writing of the two species known to him, French (narbonensis) and German (germanica), says that "both these grow and prosper well in gardens with us heere in England," mentioning them as "thriving by running streams and rivers, in fenny ground and gravelly soils, in moist and stony places," showing how alive he was to the fact that their use is not restricted. At that time the shrub was used medicinally in various ways, among which may be quoted the cure for tooth-ache and for the bite of the poison spider, Phalanquin. At that time May and August seem to have been the flowering months, and later on Miller (Philip) gives it as flowering in the months from June to October inclusive. He recommends the transplanting of this shrub in October, as it then has less danger of suffering from drought, and thus will probably flower the following summer. The advice is still the best that can be given. Loudon, again, quotes T. gallica as flowering from May to October and T. germanica as June to September; and I find this variation in time of flowering is even now noticeable in different parts of the kingdom.

Not only has the public made up its mind that the Tamarisk is useless except as a seaside shrub, but also that it needs the salt, the abundant moisture, the sandy soil and open situation which it is there enabled to enjoy. One has only to go to such unlikely spots as Kew in the Thames Valley, with its warm and sheltering climate, to find a beautiful object-lesson in the great possibilities of growing this delightful shrub away from sea influence. The thriving specimens growing there give their own denial to the passively accepted charge levelled against them. And neither here nor at Wisley is any salt given them or any special soil.

The character of the plant is so ornamental and so distinct from that of any other that the foliage alone, with its feathery masses, would be sufficient to make us wish to grow it; but, added to this, the delicate apricot pink inflorescence is lovely, plentiful and unique.

Trained in the way the tree is sometimes treated on our shores as a wind screen, with gnarled old trunk, and branches turned from their upward path by tying horizontally, they form a feathery but efficient rampart against the stormy sea winds. Naturally, this artificial shaping somewhat detracts from the beauty and grace of the shrub, which is seen at its best when allowed a certain latitude of growth to rise its 10 feet.

In the extreme South-West, where stone walls take the place of our Eastern hedges and where wall gardening is a special feature of every lane, it is common to see the Tamarisk mounted above the stone pile, rooted there firmly and thriving in what would seem to be most inadequate conditions. The effect of the impenetrable wall base and thick shrubby top is to produce an ideal shelter in that exposed part of our country. Of course, the process is a slow one, and the hedge when started must be planted in new earth, and not be expected to thrive on an old, much-used wall.

The distance apart for planting a good hedge is about 6 inches or 8 inches, and for several years they will need close attention until fully established, when they will give no trouble whatever. October to December is the best time for this operation. They prefer a good deal of moisture, but it is not essential for them; likewise they do not object to salt either in soil or spray, but do not exact it; and although they do well with the very least of pruning, yet will stand a sharp annual cutting back.

"Manna Plant" is a name it is known by, and although we call it Tamarisk, "Tamarix" is the correct botanical term. This must not be confounded with the word Tamarack, which is the name given to one of the Larches, Larix americana. There are not many varieties known as yet, and those there are have many confusing synonyms.

The wild and common Tamarisk is T. gallica, known to us all. Another very similar to it, but better and finer, is T. tetrandra, generally made synonymous with T. parviflora. Some say their plants flower earlier, some say later than the gallica, but all agree that it is a fine thing. The most beautiful of all, however, though unfortunately it is not quite so hardy as the rest, is T. japonica, syn. T. chinensis (the word plumosus is sometimes added), which is a revelation as to the possible beauty of a Tamarisk. T. hispida æstivalis, syn. T. Pallassi, is a fine late-flowering species, and in T. hispida kashgarica or T. kashgarica the flower is of a more pronounced and deeper red than the others and is altogether rather distinct, and flowers in the autumn till about October.

Besides these there are several greenhouse species with which we are not concerned. There is a plant called Myricaria germanica, which is a very near ally to the Tamarisks, sometimes spoken of as the German Tamarisk, and is very similar to them, but is more erect, shorter and less graceful, with leaves more glaucous and the whole habit somewhat different from them all. Mention is occasionally made of another species, Myricaria davurica, but I am unable to learn anything definite concerning it. E. CURGWEN.

THE FRUIT GARDEN.

A GOOD EARLY PEAR—DR. JULES GUYOT.

OF Continental-raised varieties among Pears I place Dr. Jules Guyot in the front rank, and it has now been grown sufficiently long to enable one to note its value. Last season it was very fine; few fruits when ripe are more handsome. It is larger than the well-known Williams' Bon Chrétien and the illustration gives a good idea of its shape. The skin is a pale yellow colour, with minute dots or spots, and there is rich crimson on the sunny side. Early fruits ought to be shapely and have a good colour, as all fruits that do not keep find a much better sale if they are handsome. Dr. Jules Guyot in this respect is all that can be desired. As a cordon or bush it is excellent. This variety is most valuable to those who require fine fruit early in September.

The fruits remain in season for a month. From a wall or cordon we get fruits in August, early in September from trained trees, and from bush or standard trees late in the month. It has the good quality of Williams' Bon Chrétien, is larger and better coloured, and is devoid of the musky flavour of Williams' to which many object. As this variety fruits so well in a small state, it should become a favourite for small gardens. Grown on the Quince stock, the tree is remarkably dwarf and prolific, and being a late bloomer it withstands spring frosts better than some early kinds. In adverse seasons I have had fruits of Dr. Jules Guyot when others failed. It well repays liberal treatment when grown as a bush or pyramid, for a mass of fruiting wood is usually made, and there are few strong growths. A. W.

THE FLOWER GARDEN.

MAY-FLOWERING OR COTTAGE TULIPS.

AS the one common factor of the Tulips which are usually associated together in this group is, as one of its titles suggests, their time of flowering, it will create no great surprise to know that there is to be found among them great diversity of colour, form and size. It is this that makes them so useful in our gardens. If we want something to fill small beds or for the front herbaceous borders, we have dwarf varieties eminently suited for such purposes; if we want something for larger masses of colour or for the back rows, we have taller and larger sorts; and, lastly, if we want cut flowers, we can have nothing more beautiful or effective to decorate our tables and our rooms.

Some of my friends to whom I have given bunches of these Tulips have expressed the greatest surprise at their lasting powers in water. I suppose they associate all cut Tulips with the early flowering varieties, which one must frankly confess are not a very great success in vases. It is altogether different with regard to the May-flowering varieties which have been grown naturally out of doors, and which have not to face the hot fires and illuminants that are necessary in the earlier weeks of the year.

With regard to gathering them, one or two hints may be of service. (1) Tulips should always be cut when the flowers are in a young state, and before they have been very widely opened by the sun; if possible, in the early morning. (2) Never cut off more than one green leaf. The greatest length that one can safely allow for the flower-stalk is to cut it off about an inch above the second leaf from the top. If this simple rule is strictly observed, the bulbs will be able to accumulate the nourishment necessary for another year's growth and be none the worse for the operation. (3) Never allow the stalks to get limp before they are put into water. If any varieties are found to flag, a cross slit about an inch deep at the end of the stem will work wonders.

DWARF VARIETIES.

One of the best known is Isabella. In its young state it has a cream flower, which is heavily margined with pale rosy red. This gradually extends over the whole of the petals and becomes more intense in colour. Silver Queen should also be mentioned; it is the rectified form of Isabella, and has a whiter and more delicate appearance. Macrospeila is a very reliable flower; it is a sort of smaller and later edition of the magnificent crimson-scarlet gesneriana spathulata, but with a different coloured base; it lasts a long time in flower and is sweet-scented. Then we have two exceedingly handsome dark crimsons in Pompadour and Glare of the Garden. They are a good deal alike, but Pompadour is decidedly the darker one. In contrast to these crimsons there is the little-known Scarlet Mammoth, which is an immense flower of glowing scarlet. Despite its size it stands bad weather well. It flowers at the same time as White Swan. Caledonia is another very bright variety; it has a smallish flower and is one of the latest to bloom. In yellows we have Primrose Beauty, a long, vase-shaped flower of a delicate primrose shade, and strangulata primulina, with a rather larger bloom and a deeper shade of primrose yellow. These are both particularly beautiful and refined flowers.

A very taking little Tulip, and one that is very distinct from any other, is the red and yellow striped Buenaventura, which is identical with one I have had for a long time under the name of Gloria Mundi. It is very bright in a mass, but must be well grown. A variety that always looks well is Sunset; it is one of the billietiana type, and is distinguished by its vivid colourings of red and yellow. It is a refined-looking Golden Crown, which, although a taller grower and a larger flower, is also a good and reliable bedder. For an isolated position, where flowers are wanted in late March or early April, the Water Lily Tulip (T. kaufmanniana) is one that I can highly recommend. To see its lovely, pale yellow bloom wide open on a sunny day in early spring is a very pleasing sight. In Royal White we have a late and dwarf flower of pure white which is invaluable for bedding. This must close my rather long list of this type. As there are not nearly so many of these dwarfer varieties as of the taller sorts, I have been led to describe what there are more fully than I otherwise would have done.

TALLER VARIETIES.

Here we have a large choice, and I am at a loss upon what principle to make a selection. Possibly the best will be to give the names of two or three of the finest and most distinct of each colour with just a word to indicate their individuality. In scarlets we have Scarlet Emperor, very large, tall and early; Flame, not quite so large, but a brighter red; and mauriana, a very lasting flower. In crimson-reds gesneriana spathulata is still without a rival. Othello, deep blood red, and Feu Ardent, a beautifully shaped flower, are both good. We have some fine yellows. Mrs. Moon, very tall and graceful; gesneriana lutea, a shorter variety with very large flowers; and the paler Darwin-shaped Inglescombe Yellow are three good deeper-coloured sorts; while Miss Willmott, Solfaterre and Leghorn Bonnet are splendid representatives of the paler shades. The two former have long, vase-shaped blooms, and the latter has large, loose petals of straw colour.

Many people admire the curious browny yellows and reddy browns. They are very distinct and decided contrasts to all other Tulips. Quaintness, a new coppery orange; Bronze Queen (or Sensation), a rich bronzy gold; and Hammer Hales, one of the largest of all Tulips, are specimens of this type.

Orange reds are found in Orange King and a beautiful new one called Great Dane. La Merveille, very graceful and of a lovely coral red, and gesneriana aurantiaca, brilliant orange red, are two quite cheap sorts which everyone should have. Innocence (pure white) is practically the only real late white. I never had it so good until this year, although I have had it for a considerable time. I hope it is really improving with age, for good late whites are wanted.

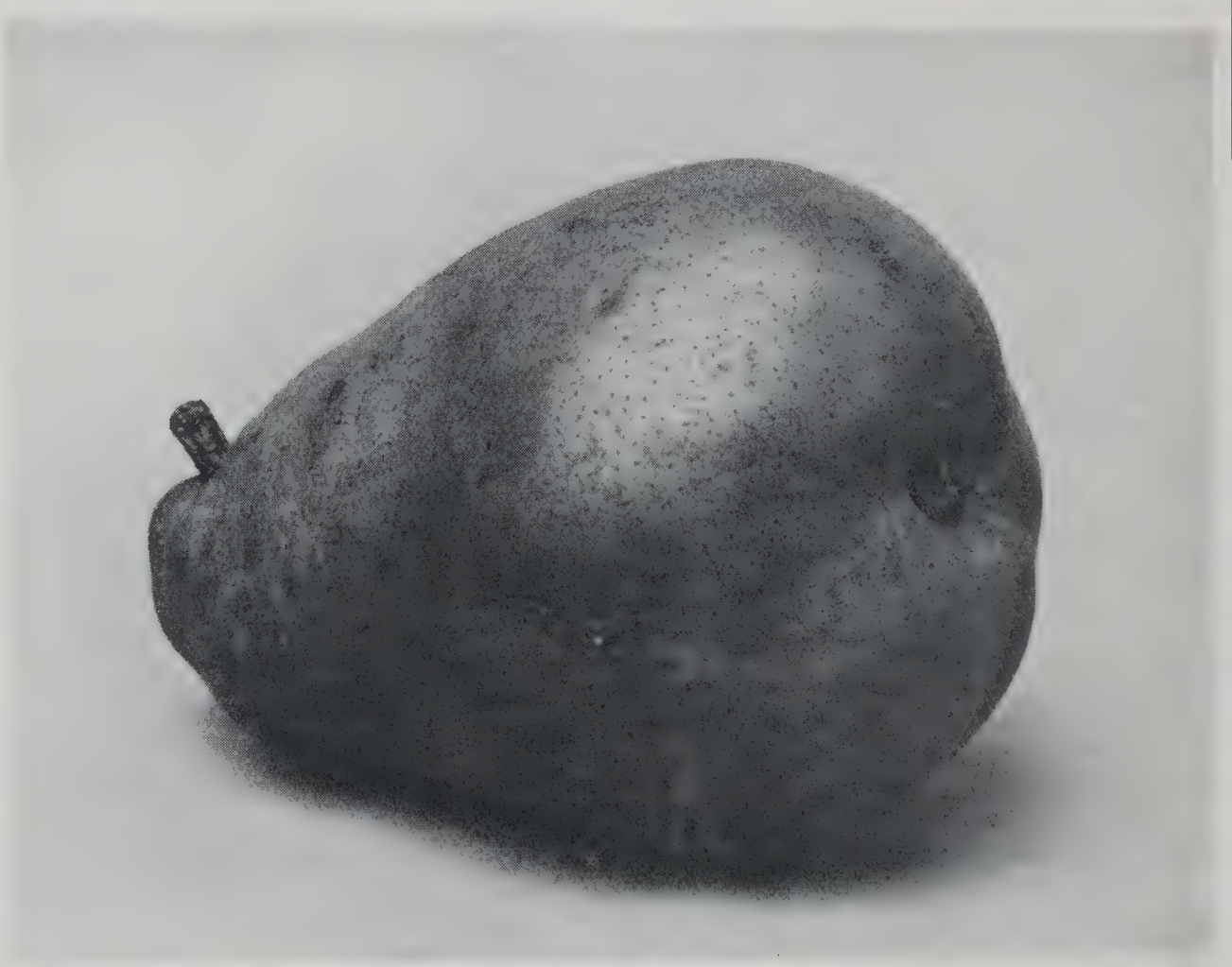
Of edged Tulips, Picotee, white, rose edge; Fairy Queen, rosy heliotrope, with yellow margin; and alba elegans, pure white, with a thread edge of rose, are all delightful in their way. My list is already very long, and there are many more I would like to mention. There are, for example, all the beautiful striped varieties, such as Admiral Kingsbergen, Zomerschoon and Chameleon; the art shaded ones, such as John Ruskin and Beauty of Bath; the grand ones like Louis XIV. and Turenne, and so on. Every reader should buy a collection at once; there is still time; the old Tulip planting day was November 9. Any time soon after that will do very well.

JOSEPH JACOB.

SWEET PEA CHAT.

AUTUMN SOIL PREPARATION.—Notwithstanding the popularity to which autumn sowing, either in pots, in cold frames or in the open ground, has attained during recent years, there still remain many thousands of keen and successful growers and exhibitors who adhere to the system of spring seeding, and are always ready to affirm that it is this method that brings the most gratifying results. Whether this is actually the case or not it is not our place at present to discuss, but to call attention to the preparation of the land for spring planting or sowing with a view to ensuring the finest blooms somewhere about the end of July.

There can be no doubt that the strong land which is prepared during the autumn will work far more easily and yield much more generous returns than if it be allowed to lie solid through the winter, and therefore autumn or early winter cultivation is most strongly advocated. As this process goes on we have to consider not only to the soil; and to secure the best results from the latter it is essential that the nature of each individual soil shall have consideration, and, further, that what fertilising material is used



PEAR DR. JULES GUYOT. (*See page 564.*)

shall be mixed with the ground intelligently, since indiscriminate manuring can never be the most profitable.

As far as the working is concerned, the cultivator has the choice of three methods, each excellent in its way and as far as it goes. The first is digging, in which the top soil is turned over to a depth of 10 inches to 12 inches; the second is bastard, false or mock trenching (commonly, but none the less erroneously, called trenching), in which the top soil is properly turned as in ordinary digging, but in which there is the addition of opening up the subsoil to an equal or even greater depth; and the third is trenching, in which the positions of the surface soil and subsoil are reversed. Comparing these, one would not hesitate to say that the last system is indisputably the best, provided that the subsoil is perfectly sweet; that bastard trenching is preferable to ordinary digging; and that no grower should be satisfied with the latter process except where his land is only 1 foot deep and overlies solid rock. In this case it is obviously impossible to do more than dig.

In all instances the working should be thorough as far as the turning over is concerned, and the surface soil must always be left rough. The object of this is to expose as great an area of soil to the immediate influence of the atmosphere, because we all know that the free admission of water and the swelling out of the lumps of mould by the force of the enormously powerful ice will enable us to break down the top with the utmost ease early in the year and provide us with an ideal bed in which to place either plants or seeds. Added to this, the atmospheric influence will increase the sweetness and fertility of the soil.

In regard to manuring, let it at once be said that the thorough mixing into the subsoil or surface soil, the former for preference, is, generally speaking, wiser than placing it in solid masses in trenches. In trenching it is simple to mix the manure into the second soil, and the quantity may be generous; in bastard trenching it may be impossible to incorporate it with the second spit, and in this case the ranker portions should go in a layer between the two soils and the sweeter into the top soil, and precisely the same system should be adopted with the digging. As a rule thoroughly rotted farmyard or stable manure is the best stuff to use, since it improves the physical condition of the soil at the same time as it adds to its fertility; but in the possible event of no natural manure being at command, reliance may be placed upon concentrated fertilisers with every prospect of excellent results, provided that the ground already contains a sufficient amount of humus. Unless the artificials used are extremely slow, such as basic slag and kainit, it is wiser to wait until the spring before application, and the subject will be alluded to again at that season. In any case basic slag at 6oz. and kainit at 4oz. to the square yard can almost always be advantageously applied.

SPENCER.

PEAKLAND GARDEN: VIEW ON LAWN LOOKING WEST WITH ROSE FRAU KARL DRUSCHKI IN THE FOREGROUND.

A GARDEN QUICKLY MADE.

THE three illustrations that accompany this note show an interesting garden made in three years. "If you care to make use of the enclosed prints of snap-shots taken by me in my garden this summer you are quite welcome to do so. They may be interesting to some of your readers as showing what can be done in a short period, even in an exposed situation over 800 feet above sea level. Three years ago the site of the garden was a pasture field. Notwithstanding the unfavourable season, Roses and other flowers here have been remarkably good.—J. B. BOYCOTT, *Welby Croft, Chapel-en-le-Frith, Derbyshire.*"

COLOURED PLATE.

PLATE 1387.

PRIMULA VISCOSA AND ITS VARIETIES.

THIS charming species in its typical form is one of the prettiest of our rock plants, and is also one of the easiest to manage. It thrives well in a mixture of sandy loam and a little peat wedged between and in the chinks of stones. Perfect drainage is essential, and in selecting a place an open situation should be chosen where it can obtain plenty of light; but the fissure in which the plant is set must be deep and moisture within reach of the roots.

The type is a native of the Pyrenees and Alps of Central Europe, growing on granitic rocks at a fairly high elevation. The flowers of the typical plant are rosy purple, with a paler eye, and are borne in large clusters on stalks only a few inches high. Many beautiful varieties are in cultivation, one of the most attractive being that represented in the coloured plate, Mrs. J. H. Wilson, which is there, by a printer's error, named Mr. J. H. Wilson. This variety is a valuable acquisition, having been raised by Mr. J. H. Wilson of Handsworth and exhibited by him on April 23, 1901, before the floral committee of the Royal Horticultural Society, when it received an award of merit. It has a good constitution and is extremely free-blooming, bearing large trusses of flowers of a rich purple shade, with a well-defined eye. Mr. Wilson says that the plant delights in well-drained soil, shade and abundance of air, a mulch of well-decayed manure being beneficial during the summer. Among the other varieties, some of which have been accorded specific rank, are: P. viscosa var. ciliata, which is very robust and bears large clusters of rich purplish rose-coloured flowers. Of this variety, again, there are forms with blooms of deeper purple and crimson shades of colour. P. viscosa var. hirsuta is a distinct form with pubescent leaves and pale mauve flowers having a white eye. There is also a variety with charming white flowers. For culture in pans for the alpine house, the various forms of this species are well adapted, as they will grow freely when planted between broken pieces of sandstone and granite. One, if not the principal, condition is thorough drainage in rich soil and plenty of moisture during the growing season.

W. IRVING.

[The plants from which our coloured plate was prepared were kindly supplied by Messrs. R. Wallace and Co., Kilnfield Gardens, Colchester, who have bought the whole stock of this charming plant.—ED.]

PART OF THE ROCK GARDEN AND WATER LILY POND IN MR. BOYCOTT'S PEAKLAND GARDEN.

PRIMULA VISCOSA.

(Mr. J. H. Wilson.)

THE ROSE GARDEN.

NOTES ON NEWER ROSES.—IX.

HYBRID TEAS.

(*Continued from page 553.*)

MME. HECTOR LEUILLIOT (Pernet-Ducher, 1905).—This promised to be a great addition to our semi-climbing or pillar Roses. The flower is a grand colour, but I am afraid I must add it produces very few blooms. I have tried it as a pillar Rose, and this season it has had quite a favourable position on a wall; but it is very sparing with its flowers (they are of fine colour, however, and of good size when they come), but one expects more than an occasional flower, so this Rose will come out of my garden this year. Billiard et Barré is still the best of the larger-flowered yellow semi-climbers.

Mme. J. W. Budde (Soupert et Notting, 1907).—This is a good clear self bright carmine colour. The flowers are of medium size, fairly full and nearly always a good shape. It is a good grower and a useful Rose, and would be more so to the exhibitor if its flowers would only come a little larger. Still, it should not be altogether ignored, as any Rose that produces the majority of its flowers of good shape is likely to be of more effective service (especially where the number of plants grown is small) than another kind that may give an occasional finer flower, but which produces a large number of split or badly shaped blooms.

Mme. Jenny Gillemot (Pernet-Ducher, 1905).—This is one of those Roses that, described in catalogues as deep saffron yellow, is really, by the time it is fully expanded, nearly white. The buds and the inside petals of a half-open flower have colour in them that, shaded from an early stage, might be termed yellow, but the general effect of a bed is nearer white than any other colour. It is a fine bedding Rose, of vigorous growth and very free-flowering. The petals are long and of good substance, and the flowers are generally pointed and of good shape. Well shaded and looked after it will give an exhibition bloom early in the season, but midseason flowers are of little use for that purpose. It is one of the best of the white Roses with yellow base, of which we have had not a few of late years.

Mme. Louis Bailly (Guillot, 1908).—This is sweet-scented, but the flower is too small for the exhibitor and the colour hardly good enough for bedding. The flowers stand well out from the foliage and are produced on sturdy growths; colour, deep cherry red.

Mme. Leon Pain (Guillot, 1905).—This is a beautiful Rose that I can recommend to all who have not grown it. The colour varies from silvery salmon to pale flesh, with a centre suffused with orange shading. It is a good grower; flowers of good size and open freely. Altogether a first-rate bedding Rose of lovely colour, variable in autumn.

Mme. Maurice de Luze (Pernet-Ducher, 1907). This is probably the best of this raiser's 1907 set. It is, I believe, a seedling that had Mme. Abel Chatenay as one of its parents. If so, there is little resemblance between them as far as the shape of the flower is concerned. The outside petals are large, of good breadth, and the colour is a deep rose pink, with a carmine or deeper centre, the outside of the petals being slightly paler in colour. I quite expect to see this Rose frequently exhibited next season, as I have seen many good flowers of it this year. It is very free-flowering, a good grower, and is one of the best of the newer Roses.

Mme. Melanie Soupert (Pernet-Ducher, 1906).—This Rose needs no commendation of mine. As an exhibition flower it is more than useful; very fine flowers of it have been exhibited throughout the kingdom. A Rose at Windsor shown by Mr. G. A. Hammond was particularly fine; then it secured the medal at the "National" show in the Royal Botanic Gardens for the best Hybrid Tea in the show for Messrs. S. McGredy and Son. As a bedder it is the best of its colour among the more vigorous growers. It is not quite such an ideal bedder, perhaps, as Mme. Ravary, not being so compact in growth; but for a tall-growing variety to match in habit of growth such Roses as Mme. Abel Chatenay, Caroline Testout, &c., it is the best yellow Hybrid Tea in commerce. The colour is not yellow exactly, but that is the predominant shade; the catalogues call it salmon yellow suffused with pink. The exhibitor must shade it; but every Rose-grower should find a place for it in his garden, as it is, undoubtedly, one of the best half-dozen Roses of recent introduction, and is bound to become, if it has not already done so, very popular. It is such Roses as Mme. Melanie Soupert that make a raiser's reputation, and it is pleasing to find the raisers naming it after a connexion of a rival in trade; but Pernet-Ducher's reputation is already made, and they are running some of our own raisers very close in popular esteem for the proud position of the world's premier raisers.

Mme. P. Euler (P. Guillot, 1908).—This I am inclined to think is going to be a good Rose. Cut young and while the outside petals are not too far developed, it is a very fine shape. I believe there is some Marquise Litta blood in it, but I may be wrong. The colour is vermilion with carmine shading; it has a delightful scent and the flowers are produced on long stems. Its only fault seems to be that after the two outside rows of petals are down, a rather hard, unshapely centre is apt to show itself which refuses to open properly—but it may be that it only requires rather more sun than it has had this season. It is free-flowering, of good growth, and well worth trying from the exhibitor's point of view. I do not mean to condemn it from a garden point of view either. I am sure it is a great gain that so many of these new Roses are useful for both purposes. Formerly few Roses that were fit for exhibition could be called good garden Roses; but the advent of Caroline Testout and other Hybrid Teas has largely changed that feature, and now many of our finest exhibition varieties are good decorative Roses, too; the colour, of course, would not suit everyone's taste.

Mme. Segond Weber (Soupert et Notting, 1908).—A Rose that came to us with a high reputation and one that has been strongly recommended. It is not easy to say where the disappointment lies, unless it is in the colour, which is not quite distinct enough. I do not mean that there is any other Rose exactly like it in colour, but it is not bright and clear. Rosy salmon describes it, but it is dullish rather than bright, something after the style of Mme. Edmée Metz, but the petals have a good deal more substance and are of a better texture; the flower is large, shapely and fragrant. The raisers say it is the best Rose of their production. It is undoubtedly a good Rose, particularly for the garden, and I can strongly recommend it, but cannot go quite so far as to say, as I have seen it described, that it is "the most perfect Rose as to size, shape, colour and scent which exists at the present moment."

Mme. Simone Beaumez (Pernet-Ducher, 1906).—This is a beautiful Rose; size alone prevents it from being quite first-rate. The flowers are of good shape, freely and continuously produced; colour, pale flesh, with an occasional tint of yellow in the centre; a vigorous grower. I have seen fine flowers of it, but with me it has not come quite large enough for the exhibitor.

Margaret (William Paul and Son, 1909).—I have been struck on more than one occasion with the beauty of this Rose as exhibited by the raisers. It is a fine, pointed flower of Killarney shape with rather more petals and deeper colouring, and one that I think very promising and certainly worth trying. I believe it obtained an award of merit from the Royal Horticultural Society at the Temple Show this year. I think it is the best of this raiser's 1909 set.

Purley. HERBERT E. MOLYNEUX.

(*To be continued.*)

PEAKLAND GARDEN: CHRYSANTHEMUM MAXIMUM WITH BIRD COTE IN THE BACKGROUND.

GARDENING FOR BEGINNERS.

HOW TO GET EARLY RHUBARB.

GARDEN WORK WEEK BY WEEK.

THE SHRUB BORDER. — In most localities all those shrubs which naturally shed their leaves in the autumn will have done so by now, and no time should be lost in making any necessary alterations and subsequently making the whole border tidy for the winter. In all probability some shrubs will need moving from their present positions to others in the same border, or it may be necessary to remove some inferior kinds altogether to make room for more up-to-date subjects. Before planting new shrubs see that good holes are made and that the soil is well worked to a depth of at least 18 inches. After removing and replanting is done, any dead wood present should be cut out, and those shrubs which flower in autumn may be thinned where this is required, after which dig up the soil between the shrubs and bury all weeds and leaves as the work proceeds, throwing some clean fresh soil under the shrubs where it is impossible to dig.

Flower Garden.—If the work of planting bulbs is not already completed, this should be finished without delay, as bulbs now out of the ground are deteriorating. Those beginners who have not already grown them should try a few Darwin and other May-flowering Tulips, which, though they flower later, are far superior to the ordinary bedding varieties. The range of colours obtainable in these is now a very wide one, and the flowers are excellent for cutting, as all possess long, stout stems, and, in addition, many of them are fragrant. They should not be planted in beds where early summer bedding has to be done, or they will not be well enough ripened to lift in time. Planted in clumps in the border the bulbs can usually be allowed to ripen off naturally.

Fruit Garden.—As fast as pruning and other necessary work is completed, the ground between the trees should be lightly forked over. Previous to doing this go round the trees with a draw hoe and scrape all weeds and dead leaves from under the branches, so that they can be buried as digging proceeds. Where any manure is to be given, this should then be applied, and as digging is being done this manure can be covered with a thin layer of new soil, so as to make the whole plot clean and neat. All prunings not required for grafting should have been collected and burned previous to the digging.

Vegetable Garden.—Take advantage of a wet day to look over the Potatoes in store and reject any bad ones that may be found, otherwise they are likely to affect others that they come into contact with. Reports to hand from various sources state that Potatoes are keeping very badly this year; hence there is more than the usual necessity for doing this work. All diseased tubers should be burned. The good ones must be stored in a dark place and be well protected against frost, which we may get severe any night now; other roots in store should also be looked at as opportunity occurs. Where a frame is available, any good-sized Lettuce and Endive plants standing outside may be lifted with good balls of soil and stood on a hard bottom in the frame so as not to quite touch each other, working a little fine soil among the roots. If ventilated freely whenever possible, these plants will come in very useful early in the year.

Room and Window Plants. — Now that the days are short and dull, these plants should be thoroughly cleansed by sponging or, in the case of Ferns and Araucarias, syringing with warm soapy water, so as to open the pores of the leaves. Any tender subjects, such as Pelargoniums, that are grown in the window should be removed at night and stood in the warmest corner of the room. Protect them, if necessary, by hanging newspapers or sheets of brown paper around them to divert cold air currents. Water must be given very cautiously from now till February, as growth in most cases is at a standstill, and the plants in most cases will need it only at long intervals. Of course much will depend on the temperature of the room in which the plants are being grown—the warmer the temperature the more frequently water will be needed. H.

1.—A STRONG ROOT OF RHUBARB LIFTED READY FOR FORCING. THE SOIL HAS BEEN REMOVED FROM THE ROOTS FOR THE PURPOSE OF PHOTOGRAPHING THEM.

2.—FORCING RHUBARB OUTDOORS. THE CROWNS ARE VISIBLE IN THE FOREGROUND WITH A SEAKALE POT IN THE REAR.

FORCING RHUBARB.

FORCED Rhubarb is much appreciated so soon as the Christmas festivities are over. At that time the fruit of our orchards is becoming scarce, and those who are responsible for maintaining the supplies of the kitchen naturally look round to see how the strain upon Apples, Pears and such-like fruits may be relieved. The scarcity of cheap fruit, however, is the chief reason for forcing Rhubarb; and those who possess the inestimable boon of a garden are keen in their desire to make the most of their circumstances, and make an attempt to meet the deficiencies of the kitchen in the winter months.

To begin the New Year with supplies early work is necessary, and if they are to be continued the work must also be continuous. Fortunately, the forcing of Rhubarb is not by any means difficult to carry into effect. Methods of forcing are varied and interesting, and many different modes are practised with equal success. Some growers make a point of preparing a small border in a southern aspect, if possible under the protection of a wall, hedge or close fence. More often, however, roots with promising crowns are lifted and planted under glass, in frames, or in a Mushroom house, where it is an extremely simple thing to ensure supplies of good quality.

Beginners may be in some doubt as to when the roots should be lifted for forcing purposes. They may be lifted at any time after the leaves die away in the autumn. Until quite recently, owing to the extremely moist and sunless weather of the past few months, the leaves have not died down so early as usual; but the frosts of a few days since have brought about a change, and the roots may be lifted as and when required from this time forth. Those who are adept in raising Rhubarb under cover as we have suggested prefer to leave the roots exposed in the open to a slight frost or two before placing them in their forcing quarters, as they invariably break into growth better when once they are placed in heat. For the earliest work it is necessary to lift the more vigorous-looking roots in the closing days of October or throughout November. Prospects of a satisfactory forcing of this crop are improved when the lifted roots are very strong and not more than two or three years old. That readers may understand what a vigorous root is, a typical specimen is portrayed in Fig. 1. In ordinary circumstances we should disturb the soil round about the roots as little as possible; but for the purpose of photographing the soil has been removed.

I have already said there are numerous places in which the roots or crowns can be planted for forcing, and there is no more useful place than that under the stage of a warm greenhouse where the temperature can be maintained at from 55° to 60°. It is almost necessary, however, that the quarters should be made dark, as

3.—THE SEAKALE POT ADJUSTED IN POSITION OVER THE RHUBARB CROWNS AND ALMOST COVERED WITH LEAVES TO PROMOTE THE NECESSARY WARMTH FOR FORCING. STABLE LITTER MAY ALSO BE USED.

growth is then more rapid. A warm cellar can be utilised for the same purpose with advantage, especially for supplies that are wanted in January and later. Those who possess a Mushroom house have an immense advantage over other growers. There is no more suitable place than this. The conditions that usually prevail there are all that could be desired, and the crop seldom fails when properly looked after. The floor of the Mushroom house should be covered with about 3 inches of good soil, and the roots then adjusted in position, working some light soil between and around them to complete the planting. It is important to remember that when forcing Rhubarb the roots must be maintained in a moistened condition. Especially is this necessary when the conditions are rather warmer than usual; frequent sprinklings with tepid water will assist very materially to promote the well-being of the crop.

To follow the earliest supplies under glass and from other quarters, beds outdoors should be utilised to their fullest extent. Beds and borders made up under a wall or a close fence facing south, as already mentioned, are excellent situations for subsequent supplies, and from such quarters a second crop should be obtained. This is perhaps the simplest way of all of forcing Rhubarb, as splendid crops may be obtained with the minimum of trouble. When Rhubarb is forced in the open the grower may utilise the services of coverings used for forcing Seakale, such as boxes, barrels of various descriptions—in fact, anything that will cover the roots and that has sufficient head room. In Fig. 2 is shown a root of Rhubarb with the crowns just visible above the ground, and with a Seakale pot placed at the back of it in readiness for covering preparatory to commencing forcing operations. It will be observed that the Seakale pot has a lid that is detachable. The reason for this is that an inspection of the crop may be made from time to time to ascertain when it is ready for use. The lid is always in position in order to keep the crowns in darkness.

Fig. 3 illustrates the Seakale pot adjusted in position and almost covered with leaves or other littery material, by which means the Rhubarb is forced. In this illustration the lid of the forcing pot is just visible. This may be exclusively covered in the cold days of January, February and early March, by this means maintaining a more equable temperature.

For raising crops of some of the more vigorous and taller-growing Rhubarbs, such as Hobday's Giant, I prefer to use empty Apple barrels. These should have the ends knocked out, and the better end preserved intact for covering purposes. In Fig. 4 an Apple barrel, as used for forcing these taller-growing Rhubarbs outdoors, is shown. Here it will be observed the barrel is placed in position over the Rhubarb root, with the lid slightly tilted to show it is not fixed, and can be adjusted after inspecting the crop. The barrel is partially embedded in warm stable litter, which will encourage the roots to start, and subsequently, if needs be, the whole barrel can be covered with the same littery material. Leaves and stable litter used in conjunction are better, as the heat does not then get too fierce. The coverings should be tested occasionally, so that the latter condition may be avoided. D. B. C.

PARSLEY FOR THE WINTER.

IN winter and spring time a regular supply of Parsley is very acceptable; but when the weather is very severe and frosts prolonged, it is quite impossible to obtain good produce from the open borders. The plants may live and commence to grow again the following spring, however severe the winter may have been, but in the meantime there is no Parsley available. At any time during the months of October, November and December strong roots—not too old, of course—may be lifted from the open border and transplanted in frames, boxes or flower-pots. If Parsley is required in large quantities, then plant in the frames; if medium supplies are needed, then the deep boxes will accommodate a sufficient number of plants; but where a small demand exists, the flower-pots will prove serviceable. Indeed, I like growing Parsley plants in pots, because there is ample depth in 7-inch and 8-inch pots for the long roots. When lifted every root must be carefully examined, and all those showing a trace of canker must be rejected. Probably many of the old leaves will soon become useless, but new ones will grow. Drain both the pots and the boxes efficiently, and use a rather light compost made moderately firm around the roots. SHAMROCK.

THE TOWN GARDEN.

THE CLEMATIS.—The Clematis, as a wall and pillar plant, is not surpassed by any other kind of creeper or climber. The branches are not self-supporting, but they are readily tied up to supports and quickly cover much space. The Clematis, as a climber, possesses many good points—free growth in almost any situation (a strong point in favour of the plant as a town garden ornament), free flowering, distinctive colours and easy management. The present is a good time to put in a number of Clematises. There is no need to confine the number to several of Clematis Jackmanii, although this is such a general favourite; but some of the best positions should be devoted to the white variety—for instance, on dwelling-house walls, porches and near windows, although it forms a lovely pillar plant or one for a pergola. For covering arbours, high fences and similar structures, Clematis montana, C. Viticella rubra grandiflora, C. Louis van Houtte, C. Flammula, C. lanuginosa and C. cærulea odorata are grand types. In addition to the uses to which these lovely plants may be put as stated above, they may also be grown so that the shoots trail over rockwork, old tree stumps, and also on wires about 18 inches from the ground so as to take the place of bedding-out plants.

THE SOIL.—Too often, I am afraid, Clematises are planted in soil which is not suitable for them, it being too clayey or heavy and tenacious of moisture. A light, dry rooting medium is the best. Loam two parts, leaf-soil one part, peat one part, and some coarse sand form a capital compost to use where the original soil is of a clayey nature, and a barrow-load of the prepared compost for each plant will prove sufficient to give it a grand start and enable it to retain good health and vigour for many years. Where the soil is sandy or light in nature, old turfy loam and well-decayed leaf-soil should be used. Clematis plants will grow in pure leaf-soil alone; this proves their liking for it, but the wood made, in the circumstances, is too soft and sappy. The plants of Clematis Jackmanii, after having several seasons' growth, often get top-heavy and bare near the base. This unsatisfactory condition often follows bad pruning. Instead of freely cutting down the plants to within at least 2 feet from their base, or the base of the current year's growth, annually, the tops only are cut off; result, no fresh shoots grow from the base, and that part becomes bare.

THE LAWNS.—The town gardener is always trying to obtain a perfect lawn, and in his striving after perfection in this direction he often overdoes it; that is, he treats his lawn too well. I remember taking particular notice of an amateur's lawn and watching the treatment during an autumn, winter and spring—and the result. Early in the autumn a nice top-dressing of rotted manure and soil was put on and, in due course, this dressing had a beneficial effect. No doubt if the lawn had been allowed to rest at that a much-improved turf would have resulted the following summer; but in the early part of spring a still heavier dressing of manure was put on, and this quite killed the grass in patches all over the lawn. Great flakes of manure were allowed to lie on the surface for many days without being broken up, and eventually the grass beneath them turned yellow and perished. A moderately light dressing is much more beneficial than a heavy one, and all such surface dressings must be put on during the autumn, so that the rains of the winter will wash in the goodness contained in them, and then when spring comes there will not be an accumulation of soil and manure on the lawn. AVON.

4.—AN APPLE BARREL USED FOR FORCING RHUBARB. BOTH ENDS OF THE BARREL ARE KNOCKED OUT AND THE UPPER ONE, AS SHOWN IN THE ILLUSTRATION, RETAINED FOR COVERING, SO THAT INSPECTION OF THE GROWING CROP MAY BE MADE.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUITS UNDER GLASS.

VINES.—The weather has been for several weeks most unfavourable for the ripening of the wood which is so necessary for the production of good crops another season. In some instances the foliage is still quite green and fresh, and will need plenty of fire-heat and an abundance of air daily to improve matters; but as soon as the crops have been gathered and the leaves fallen, lose no time in getting the Vines pruned and thoroughly cleansed and dressed, so that they are ready to start when the proper time arrives.

If good accommodation exists for keeping Grapes when bottled, they should, with the exception of very late ones, now be cut, removing as much wood with the bunch as can be spared. Fill the bottles with clean soft water, and drop a few pieces of fresh charcoal into each. If kept in a cool and moderately dry temperature, the berries will remain sound and plump for several weeks and the Vines will be at rest. If young Vines are to be propagated in spring, a quantity of the prunings should be tied up in bundles, correctly labelled and heeled in an outside border. Keep a watchful eye on all Grapes that are hanging on the Vines, and remove any decayed berries.

Figs planted in restricted borders must not be allowed to suffer from dryness at the roots. If not pruned they may be taken in hand at once. Cut away long, useless wood and preserve plenty of stout, short-jointed shoots, as from these the best crops are usually produced. Cleanse every branch thoroughly, wash the glass and woodwork, and lime-wash the walls, so that all is made clean and sweet.

PLANTS UNDER GLASS.

Roses in Pots.—These may now be pruned for starting when required. See that the soil is free from worms, the drainage good, and top-dress after removing a part of the old soil, using sweet loam, bone-meal and well-decayed manure.

Cinerarias should be given a good light position where plenty of air can be freely supplied during favourable weather. Allow ample room for growth and feed at intervals with weak liquid manure. Fumigate should aphis attack the leaves, and use the syringe when necessary.

Bulbs.—Examine those covered with coal-ashes at intervals, removing them before the tips of the new growths get injured. Narcissi, early Tulips and Roman Hyacinths should be taken into a slightly warmed house at intervals, according to demand, and a week subsequently they may be placed in a warmer temperature, if necessary, to hasten growth.

Large Camellias, both in pots and planted out, will need heavy supplies of water at intervals. If the roots are examined and found very dry, slightly loosen the surface and water two or three times till the whole ball of earth and roots is well moistened. Keep the foliage free from thrips and other insects, and in some instances the flower-buds will be all the better if thinned. Attend to any Azalea indica and Heaths whose roots have tightly filled the pots, and when water is required give enough to soak the whole.

Tree Ferns with masses of roots should also receive every care and attention in the above respect. Too dry at the roots means loss of fronds and encouragement of thrips. Agapanthus umbellatus in large pots and tubs should be kept on the dry side for some time during winter, and although fairly hardy, they should be wintered in a rather dry atmosphere, such as a cool vinery or frost-proof sheds. H. MARKHAM.

(Gardener to Viscount Enfield.)

Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

THE FLOWER GARDEN.

ROSES.—The season for planting being at hand, the soil should be got ready for the plants when received from the nursery, so that unnecessary delay in getting them into permanent positions is obviated. If the beds were manured and prepared as advised a short time ago, the newly turned and deeply worked soil will have again become somewhat consolidated. It is important that a small quantity of good soil, quite free of fresh manure, is used about the roots. This prepared and placed under cover will enable the work of planting to be proceeded with at a time when the weather conditions are not of the best. Dwarf plants are most in favour at present as being more amenable to cultivation and, generally speaking, longer lived than standards. The latter, however, are useful for relieving the monotony or sameness that is apt to be too prominent where none but dwarf plants are adhered to. The former may be planted about 20 inches apart, or, if in large masses, rather more than this about the central part of the plantation. It is important with these that the point of union is, when all is finished, about 2 inches below the surface soil.

Labelling.—The enthusiast may possibly know most of the varieties at sight, but the great majority of cultivators require some system of naming to refresh their memories and add interest when the plants are in bloom. Metal labels in several forms can be procured cheaply, and these loosely wired to a iron pin, some 18 inches in length, are very durable and inconspicuous.

THE PLEASURE GROUNDS.

Climbing Roses.—The wealth of forms and colouring, as well as freedom of growth, among these is remarkable. Objects unpleasing to the eye may, for the greater part of the year, be hidden by planting against them one or more of these rapid spreading plants. Trees past their best are often in evidence, and these instead of being removed will, if beheaded, according to the exigences of the case, support a climbing Rose that will prove an object of great beauty for many years. The conifer family in this respect is unique and good. In planting, a large hole should first be excavated, for preference at a short distance from the tree stem, and be filled with a good compost. Insert the roots, which, if turned out of a pot, should be carefully disentangled and spread out and covered with a few inches in depth of earth. Other climbing plants, such as Clematis in great variety, Lonicera, Jasminum, Polygonum baldschuanicum, Solanum, Vitis and Wistaria are all suitable, and sufficiently hardy in most districts for planting in this way.

INDOOR PLANTS.

Carnations.—The recent wet weather has been adverse to these, and has necessitated the application of more fire-heat to create a buoyancy in the atmosphere than is desirable. Plants in flower should be frequently inspected and have bad petals or decaying foliage removed. To mitigate the evil of damping, watering may now be reduced to the lowest limit, taking advantage of a breezy or bright day to thoroughly moisten the rooting medium of any plants that are in need of it.

Chrysanthemums.—Large blooms, but more especially those rather far advanced before the plants were housed, are prone to exhibit faulty and discoloured petals as they develop. Timely removal of all such is the only remedy, or, if very bad, the whole bloom is best discarded before the infection spreads to others near at hand. Apply manure-water sparingly, though late-flowering varieties scarcely beyond the stage of bud formation must be assisted in this way for a time longer. JAMES DAY.

(Gardener to Sir Malcolm M'Eacharn.)

Galloway House, Garlieston, Wigtownshire.

NEW PLANTS.

LÆLIO-CATTLEYA BARONESS SCHRÖDER VARIETY MME. HENRIETTE.—This is a beautiful form of a well-known Orchid, the large sepals and petals being bright rosy mauve streaked with carmine, a broad stripe of this colour running down the centre of the petals. The sepals are narrow and acutely pointed, the petals being nearly four times as broad. The lower portion of the medium-sized labellum is very rich yellow, this colour extending well into the throat. At the apex is a large, rich carmine blotch, the whole labellum being heavily fringed. Shown by Comte Joseph de Hemptinne, St. Denis Westrem, Ghent. Award of merit.

Lælio-Cattleya Corunna Westonbirt variety.—A beautiful flower of rich colouring. The sepals and petals are rich purple in colour, the large labellum being very deep claret, with rich yellow striation extending into the throat. Shown by Lieutenant-Colonel G. L. Holford, C.I.E., C.V.O., Westonbirt, Tetbury, Gloucestershire. Award of merit.

Nephrolepis exaltata Marshallii.—It is difficult indeed to find words to convey an adequate idea of the filmy grace and beauty of this remarkable novelty, whose densely plumose fronds are of the finest possible texture, and overlapping each other hang over the sides of the pot to form one of the most delightful subjects imaginable. A sport from the very beautiful N. e. Amerpohlii, it quite surpasses this in its delicate and elegant grace. Usually in a case of this kind a new plant is submitted as a solitary example only, whereas on this occasion a superb bank of plants was arranged, thus affording a good idea of its value. This remarkable novelty originated with Messrs. H. B. May and Sons, Edmonton, and was unanimously awarded a first-class certificate.

Begonia The Gem.—An excellent addition to the winter-flowering section, which has been evolved by the intercrossing of tuberous-rooted varieties with B. socotrana. The newcomer is of an erect habit of growth, the blossoms of a semi-double character and coloured a deep carmine red. The flowers are erectly held on short, stout footstalks, and in this way the variety is quite distinct from others which have preceded it. The plant is a most profuse bloomer. Shown by Messrs. James Veitch and Sons, Limited, Chelsea. Award of merit.

Chrysanthemum Lingwoods Pride.—A large, single, pink-flowered variety of much promise, the flower-heads being supported on very long stems. Shown by Messrs. J. Peed and Sons, West Norwood. Award of merit.

All the above were shown before the Royal Horticultural Society on the 9th inst., when the awards were made.

THE EDITOR'S TABLE.

MEDLAR FLOWERS FROM BRISTOL.

Mr. H. Henderson, The Gardens, Bownham House, Clifton, Bristol, sends us flowering sprays of the Medlar. Mr. Henderson writes on November 4: "I am sending you a few twigs in flower of the Stoneless Medlar. I have never seen the Medlar in flower this time of the year before. We had 7° of frost on October 16, after which I cut four nice twigs of Apple blossom. I think this is due to the unusual weather that we have had."

KAFFIR LILIES FROM SUSSEX.

Mrs. C. Malden, Henley House, Frant, Sussex, sends us flowers and foliage of the beautiful autumn-blooming bulbous plant, Schizostylis coccinea, which are most welcome, coming as they do in the dull days of November. We fully endorse all our correspondent says about these charming and graceful flowers. Mrs.

Malden writes: "I am sending for your table some Kaffir Lilies (Schizostylis coccinea); they are in full beauty with me now, and I think they are good enough to send to you. They had to put up with 8° of frost last week, and every night now we have a ground frost, so they are fairly hardy. I believe they get hardier year by year; they certainly spread enormously here. They do not like a lot of rain when they are flowering; that is the only thing I find they object to. I often wonder they are not more grown. Surely anything that flowers like this in November is worth a place in every garden."

AUTUMN TINTS AND BERRIES.

Messrs. James Veitch and Sons send a selection of shoots of shrubs that are conspicuous either for the beauty of their leaves or of the berries. This year there is no general colouring worth speaking about, and it is, therefore, all the more interesting to know the names of those tints that have given beauty to the garden. A charming shrub is that of the

Snowberry, called Symphoricarpus mollis, and when it becomes better known it is sure to be largely planted in our gardens. It is the kind of shrub to make a large group of on the fringe of a woodland or by itself. The leaves are larger than those of the common kind, the fruits individually, too, their shape more oval than round, and they are produced more abundantly.

Pernettya mucronata.—This is always welcome for the rich green of the leaves and the wealth and diversity of colouring in the berries. The Pernettyas grow more vigorously than many suppose, enjoying best a damp, peaty soil. In many Irish gardens they are delightful, fruiting and growing more freely than in this country.

Vaccinium corymbosum.—One of the most beautiful of the Vacciniums, and the leaves sent testify to the warmth of their autumn colours. The shrub grows from 5 feet to 10 feet high, and the colours in autumn are crimson and rich crimson-brown.

White-fruited Dogwood (Cornus alba).—Of the trees native of Northern Asia and Siberia this is one of the most important. It is called white-fruited, of course, in allusion to the fruits, which are in large clusters, their pearly white colour being in strong contrast to the crimson colouring of the stems. A variety of this is well known in our gardens, and may be considered one of the most beautiful of variegated shrubs, namely, C. alba Spathii, the leaves having a bronzy tint in spring, and then turning to green, margined with golden yellow.

Stuartia pentagyna belongs to a group of beautiful shrubs which we have frequently seen in flower at Messrs. Veitch's Coombe Wood nursery. The best-known, perhaps, is the Japanese S. Pseudo-Camellia, S. pentagyna bearing its creamy white flowers from May until July, and in the autumn there is the deep chocolate colouring of the foliage.

Sea Buckthorn (Hippophaë rhamnoides).—It is always a pleasure to see shoots of this silvery grey shrub smothered through the winter months with orange-coloured berries. One may sometimes meet with it wild on the eastern coasts. The spreading growth, the silvery colour of the narrow leaves, and orange berries give colour to the garden when it is most needed. It will grow as well inland as by the sea, and should always be planted in good soil. A noble group of it may be seen by the large pond in Kew Gardens, and it is necessary to plant one female plant to six of the male, otherwise there will be no fruit.

Carolina Allspice (Calycanthus florida) is, as the popular name suggests, a native of Carolina; it is a spreading shrub seldom more than 6 feet high, and has dark-coloured, sweet-scented flowers. The leaves turn to a rich crimson and green shade in autumn.

Parrotia persica.—This tree is greatly admired for its autumn tints. It is called the Iron Tree and comes from Persia. When autumn approaches the large, deep green leaves turn to brilliant colours—orange, yellow and shades of crimson, The flowers appear in February, and the stamens have crimson tips, which render them easily seen; but the autumn colouring constitutes the chief charm of the Parrotia.

Cotoneaster frigida.—One often sees this tree in gardens, and its popularity is not surprising. It grows to a height of about 10 feet, is vigorous, and the white flowers of spring are followed by a wealth of clusters of berries of a deep scarlet colour. The specimens sent are exceptionally fine. It is a good tree for towns.

Viburnum rugosa Henryii.—This is one of the most distinct shrubs introduced of recent years. The leaves are narrow and deep green, and the crimson berries cluster thickly on the shoots.

Berberis Wilsonæ.—A charming shrub with berries that remind one in colour and shape of those of the Yew. It is one of Mr. Wilson's introductions, and is becoming increasingly popular.

The Scarlet Oak (Quercus coccinea splendens). The most important for its colouring of the North American Oaks. A good-sized tree imparts much beauty to the landscape at all seasons, and especially in autumn, when the large, deeply cut leaves are warm crimson in colour with a shade of brown in it.

These are a few of the best kinds sent, but there were also many others. Cercidiphyllum japonicum, Vaccinium pennsylvanicum, V. stamineum, Maples, such as Acer palmatum atropurpureum, A. p. septemlobum elegans, A. rubrum, A. japonicum laciniatum, A. linearilobum, A. colchicum rubrum and A. tataricum Ginnala, Spiræa Fortunei macrophyllum, S. prunifolium, Cotoneaster Franchetii, Viburnum nudum, Quercus palustris, Q. macrophylla Albertii, Berberis Thunbergii, Andromeda arborea (glorious colour), Cotoneaster applanatum (crimson berries), C. horizontalis (orange berries), C. microphylla, C. Simonsii, Skimmia japonica, Prunus Pissardii and the purple Almond (Amygdalus dulcis purpurea).

SEEDLING CHRYSANTHEMUMS FROM BERKSHIRE.

Mr. J. Linden, Springs, North Stock, Wallingford, sends us flowers of six seedling Chrysanthemums, which are very pretty and graceful and which should be most useful for decoration at this time of year. Although no advance on named varieties already in commerce, these seedlings possess a beauty of their own and doubtless are of vigorous growth.

BOOKS.

A new book on Conifers.*—The second and final volume of Mr. Clinton Baker's work on conifers has recently been published. The title of the work indicates its chief purpose, which is to present a life-size picture of a shoot and cone of all the larger hardy conifers. In the present volume the most important genera dealt with are Abies, Picea, Larix, Sequoia, Araucaria, Thuya and Cupressus. But several monotypic genera are also described and illustrated, such as Pseudolarix, Sciadopitys, Cunninghamia and Cryptomeria. Of every species a portrait, nearly always an admirable one, is given. In the case of the Abies, many species have two plates devoted to them, one showing the cone with the characteristic foliage that belongs to fertile shoots, the other illustrating the ordinary leafy or infertile shoot by means of two twigs, one of which displays the upper surface, the other the lower one. Each species is described clearly and concisely, and interesting and useful information regarding the native country, habitats, economic value, &c., is given. Having had occasion to use both volumes of "Illustrations of Conifers" somewhat frequently, we can testify to their remarkable accuracy and worth. To all who are concerned with this group of trees, and especially to those who are desirous of having their specimens correctly named, we can strongly recommend this work. Mr. Clinton Baker possesses in his own grounds at Bayfordbury one of the finest collections of conifers in the South of England. This collection has provided the greater part of the material for illustrating his work, but to render it as complete as possible the author has had recourse, not only to collections in the British Isles—such as those at Kew, Dropmore, and several others in the three kingdoms—but he has obtained and publishes photographs of native specimens from Japan and North America. Some of the plates illustrate species for the first time in this country. We are glad to be able to congratulate the author on the successful completion of an arduous and not uncostly undertaking, but one that has evidently been a labour of love.

*"Illustrations of Conifers," by H. Clinton Baker, Vol. II. (Privately printed.)

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR OF THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Plants for herbaceous border (*E. R. B.*).—You might along the back line plant the taller Sunflowers, as Helianthus multiflorus maximus, H. m. fl.-pl., H. Miss Mellish, and some of the Larkspurs in distinct shades of colour; in a second row such plants as Cimicifuga simplex, Anchusa italica Dropmore variety, Rudbeckia Autumn Glory, Galega Hartlandii, Aster Novæ-Angliæ Lil Fardell, A. N.-A. rubra, A. N.-A. pulchellus, A. Wm. Marshall and A. cordifolius Ideal; in a third row the pure white Phlox Mrs. Jenkins, Iris aurea, Phlox Flambeau, P. Etna, Delphinium Belladonna, Chelone barbata, Scabiosa caucasica, S. c. alba, Lilium candidum, L. testaceum, L. Hansonii and L. chalcedonicum; while, again, in front of these such things as single and double Pyrethrums, Irises of the Flag section, and particularly such as Mrs. Darwin, Chelles, Dr. Bernice, Gracchus, Queen of May, Mme. Chereau, Darius and aurea; in addition, Aster Amellus, A. lævigatus, A. acris, Achillea alpina and the like, white Pinks, Megaseas and other things appearing near the margin. We would suggest that you plant in groups, employing, say, three or five plants of each to give the desired effect. Carnations, Columbines and Daffodils may also be planted if desired.

Gunnera manicata (*Thomas Harrison*).—As the example has only been planted two years and is, as you say, a strong, healthy plant, we do not see that there is much wrong. It may be, of course, that the crowns vary, and frequently this is so in the case of seedling plants. We could only form a proper estimate of its progress by knowing the size of the plant now and also at planting-time, and you say nothing of the size of the leaves or their spread or even of the position occupied by the plant. In any case, no harm would be done to it by early discouraging the flowering spike, so that the whole energies of the plant may go to leaf-formation. If you care to send fuller particulars of how and where the specimen is planted and the size and number of its larger leaves, we may possibly be able to assist you further.

TREES AND SHRUBS.

When to prune Cydonias (*Lucas*).—You may prune your Cydonia (Pyrus) japonica at once so far as the very strong, rampant growths are concerned, but leave any wood which looks as if it bears flower-buds until spring. After the flowers are over spur it well back to the wall; then go over it in June and again in August and cut back the young wood as you would with fruit trees, to form spurs. You will in time get it to form short, stubby growths, on which flowers will appear in profusion. Summer pruning will, however, have to be persisted in each year. Should strong branches continue to be formed, lift a portion of your path, find a few of the strongest roots and cut them through. This ought to check undue growth.

Edging for drive (*Anxious*).—There are three things which you might try as an edging for your drive other than the subjects you have already tried. They are Hypericum calycinum, Vinca minor and Euonymus europæus. The former would most likely give the greatest satisfaction if it is not too coarse-growing for you. It attains a height of from 9 inches to 12 inches, but may be cut to the ground each spring. The Vinca keeps dwarfer, but rambles about rather more. The Euonymus may be clipped in the same way as Box, and can be kept quite dwarf or may be allowed to form a hedge 1 foot high.

MISCELLANEOUS.

Planting a Raspberry bed (*Catalpa*).—You may plant your new Raspberry bed at once, or any time before the end of February when the weather is open. Providing you do the work at once and obtain good, strong, well-rooted canes, it is quite possible to obtain a medium crop of fruit next year. In the event, however, of planting being delayed until spring, or should the canes be weak, you would do well to cut them down to the ground in March and forego what few fruits they would be likely to produce. By doing this very much stronger canes will be formed for the ensuing year than if the old ones were allowed to fruit. The bed will be greatly assisted if you give it a top-dressing of well-rotted manure next May.

Caterpillars eating Sprouts and Savoys (*Mrs. B, Ealing*).—We have no doubt that it is the caterpillar of the large white cabbage butterfly which is devouring the winter greens of our correspondent. It is a most difficult pest to deal with, especially when it assumes so formidable an aspect as to threaten the total destruction of the Sprouts and Savoys, as in this case. There is no known remedy so effective as hand picking, or, when they are very thick on the plants, of brushing them off into a vessel of some sort and burning them. This may appear a tedious business, but it is wonderful how great a riddance can be effected in this way by a determined man in the course of a few hours, or even a day if this is found necessary. Regarding the application of remedies, one is restricted in this matter by reason of the fact that no poisonous compound can be applied as a dressing to any vegetables which are intended for consumption. The best mixture to apply is quicklime, soot and salt in the following proportions, mixing them thoroughly well together before applying to the plants: One peck of quicklime, half a peck of soot and half a pint of salt.

Planting two or three acres of bush Apple trees on Paradise stock (*Much Obliged*).—We presume you are going in for growing early varieties, as all those you mention ripen early. No doubt Worcester Pearmain is one of the best, if not *the* best, paying early Apple to grow, and you would be well advised to plant more of this than of the others you mention. We think you ought also to add James Grieve and Cox's Orange Pippin. If you are looking for the best and most immediate result and lasting effect, you would do well to manure the land with farmyard manure at the rate of at least fifteen tons to the acre and trench the land 2 feet deep all over. By doing this you could grow a crop of early Potatoes between the trees for two or three years, taking care not to crop within at least 4 feet of the trees. The other plan would be to dig holes 5 feet across and 2 feet deep, breaking up the bottom of the hole after this. Before putting the soil back again in the hole ready for planting the trees, take the poorest bottom soil away and add as much as will make this good of rich, well-rotted manure and place back in the holes, when they will be ready to receive the trees The top roots of the trees when planted should be within 5 inches of the top of the ground. It is difficult to say what the cost of planting would be per acre. The trees should be planted 9 feet apart each way—that is to say, 9 feet between the rows of trees and 9 feet between tree and tree in the row. At this distance apart it would take 537 trees to plant an acre. By buying them in large quantities you would probably be able to secure three year old bush trees on the Paradise stock at from 1s. to 1s. 6d. each. We strongly advise you not to buy them at auction sales, where the trees and their roots are often exposed for a long time, with the consequent deterioration of their roots and branches. Moreover, you can never rely on them being true to name, and you have no remedy if they are not. As a rule, it takes a man rather more than a fortnight to trench friable and rather light land per acre, so you could calculate what approximately the cost per acre to you would be of planting your land, adding the cost of the manure. The greatest enemy of the Apple is the American blight. You should stipulate in buying that your trees are free from this.

Apples for heavy soil (*L. R. P.*).—The best three varieties of Apple to ripen in September, we think, are the following: Lady Sudeley, Worcester Pearmain and James Grieve. The best material you can use for making such soil lighter is old mortar rubble and road scrapings. The ground should be trenched 2½ feet deep and plenty of these materials added, as well as a fair quantity of half-rotten manure.

Raspberries fruiting in autumn for several years (*Dudwell*).—It is not an unusual thing for Raspberries to occasionally bear as much fruit in the autumn on the current year's growth as they bear the following year on the same canes. But this abnormal condition of things is the exception, and is due to peculiar weather conditions prevailing at that season. Seeing that your canes have fruited in the autumn in greater quantity than in summer for several years, one is almost forced to conclude that yours must be an autumn-bearing sort, in which case it would be difficult, even if possible, to change its character. We suggest as an experiment that you cut back a few of next year's young shoots, after they have made a growth of from 6 inches to 8 inches, to two buds of their base. They will soon break into growth again, and if there is more than one growth, rub off the others so that only one cane may grow. This later growth of the cane, we think, may prevent its fruiting the same year. Anyway, we advise you to try a few canes only and note the result for future guidance. If this does not answer the purpose, the best thing you can do will be to plant another bed of the variety Superlative. Follow the suckers down to the roots and cut them off. If you wish to increase your stock, these will make useful plants by next autumn.

Lawns invaded by tenacious weeds from fields and meadows (*Schopp*).—The best way of ridding lawns of coarse weeds is to dig them up and pick up the roots as digging goes on, burn them, and then sow the ground with best grass seed at the end of March or relay with good turves in open weather during winter. Unfortunately, in your case this would not be efficacious, on account of the nearness of your lawn to fields and meadows, from which seeds of noxious weeds are blown on to the lawn. There is a mixture extensively and successfully used in England for the destruction of Daisies and such weeds as you enclose on lawns. It is named "Lawn Sand, for the destruction of weeds on lawns." It may be obtained from any seed merchant advertising with us, accompanied with full instructions how to use. A good book on lawns is published by Messrs. Sutton and Sons, seed merchants, Reading, England. It is the most complete and reliable work on the subject we know of. We regret to say that we do not know where to obtain a French book dealing with the subject, but probably Vilmorin, of the great seed establishment in Paris, would supply one. We are strongly in favour of rolling lawns on all favourable occasions in winter. It is this rolling and attention in winter that has made our lawns famous.

Name of plant.—*Southdown.*—The plant is Cassia corymbosa.

Names of fruit.—*F. C.*—1, Downton Pippin; 2, Blanders; 3, Fearn's Pippin; 4, Wellington; 5, Northern Greening; 6, Pennington's Seedling; 7, Wealthy; 8, Pickering's Seedling; 9, Brandy Apple; 11, Beauty of Hants.——*L. W. M., Bristol*—1, Nelson's Codlin; 2, Court Pendu Plat; 3, Stamford Pippin; 4, Belle Julie; 5, Beurré Clairgeau; 6, Josephine de Malines.——*A. P. F.*—3, Northern Greening; 4, Beurré Clairgeau; 11, Cox's Orange Pippin; 23, Blenheim Orange; 24, Fearn's Pippin.——*T. C.*—Apples: 1, Bess Pool; 2, Alfriston; 3, Warner's King; 4, Five Crown Pippin; 5, Bess Pool; 6, Northern Greening.—— *Pearson, Putney.*—Pear Conference.——*H. G. C. C.*—1, Blenheim Orange; 2. Cobham.——*Southdown.*—1, Rotten when received; 2, Doyenné d'Alençon; 3, Easter Beurré; 4, Beurré d'Jonghe; 5, General Todleben; 6, Beurré Diel; 7, Gansel's Bergamot; 8, Kedleston Pippin; 9, Margil.——*W. de H Birch.*—6, Duc de Nemours; 24, Grenadier; 28 and 56, look like very small specimens of Blenheim Orange; 42, Marie Benoist; 49, Cox's Orange Pippin. The samples are so wretchedly small, misshapen and badly grown that it is impossible to name them all correctly. Please send samples next year (a few at a time) when better grown, and we will name them as far as possible for you with pleasure.

SOCIETIES.

BOURNEMOUTH HORTICULTURAL SOCIETY'S CHRYSANTHEMUM SHOW.

ALTHOUGH the adverse season has been mainly responsible for the falling off in the various classes devoted to cut blooms of Chrysanthemums, the new features introduced filled the gap, slight though it was, in a remarkable way, and satisfied the officials and the public that the twenty-third exhibition, held on the 2nd and 3rd inst., was a decided success. The Winter Gardens Pavilion, in which the exhibits were staged, was packed with appreciative visitors on both days. The past season being a late one, many Chrysanthemums were not fully developed, and, consequently, were not entered. Fruit was staged well and in large numbers, the competition in the Grape, Apple and Pear classes being exceedingly keen. Table decorations, always a lovely feature at this annual show, compelled much appreciative comment this year, and the non-competitive exhibits were of a very high quality and made a big display.

CUT BLOOMS.

The principal class was for thirty-six cut blooms, not more than two of any one variety. First honours went to Mr. Thomas Stevenson, gardener to E. G. Mocatta, Esq., Addlestone, Surrey, who staged a magnificent lot of flowers, rich in colour and heavy and fresh. The blooms were as follows: Lady Talbot (two), Henry Perkins, F. S. Vallis (two), Valerie Greenham, Mrs. Charles Penford, Sir Frank Crisp (two), Mrs. Norman Davis, Marquis of Northampton, Reginald Vallis (two), Master James (two), F. W. Lever, Mrs. W. Knox, Mrs. A. T. Miller (two), Algernon Davis, G. J. Bruzand, Mme. de la Crouce (two), James Lock (two), Charles H. Totty, Walter Jinks, Miss L. K. Thorne, Duchess of Sutherland (two), J. H. Silsbury, Mrs. F. C. Stoop, Leslie Morrison, and Mme. G. Rivol. Mr. Usher, gardener to Sir Randolf Baker, Bart., Ranstone House, Blandford, was a close second. His blooms were fresh and very highly coloured, Mrs. A. T. Miller, Rose Pockett, President Viger, Lady Talbot, Splendour, Mrs. Laxton and W. Beale being the most noteworthy varieties.

For nine vases of Japanese cut blooms, distinct, three blooms of each variety, stems not less than 18 inches in length, Mr. Slark, gardener to G. J. Fenwick, Esq., was the only exhibitor, but he staged grand blooms and won the silver challenge cup presented by Alderman J. Elmes Beale. Incurved blooms were good, but not very numerous. Mr. Usher led in the class for twelve in not less than eight varieties.

There was more spirited competition in the class for twelve Japanese cut blooms, shown on boards. Mr. Lloyd, gardener to Major Wyndham Pain, scored, followed by Mr. G. Cox, gardener to Dr. A. J. Brodie, for second place, and Mr. Sprackling, gardener to Dr. Lys, for third.

A silver challenge cup, presented by Mrs. Telfer for two vases of Japanese blooms on long stems, distinct, nine blooms, one variety in each vase, was won by Mr. Tompkins, gardener to the Dowager Lady Miller.

Mr. Barge, gardener to the Rev. C. H. Burrows, was the successful exhibitor of six vases of Japanese blooms in six distinct varieties, three blooms of one variety in each vase.

GROUPS.

The Mayor of Bournemouth offered a silver challenge trophy as first prize, with money prize added by the society, for a group of Chrysanthemums arranged in a space of 50 square feet, and Mr. Tompkins was the winner. The principal group was one of miscellaneous plants in a space 12 feet by 9 feet, quality, variety and general effect to be the leading features. It was in this class that a new departure was made, as formerly only Chrysanthemums were allowed. In addition to a handsome money prize a silver challenge cup was presented by the chairman of the committee, Mr. G. H. Rolls, J.P. Messrs. G. Watts and Sons, Palace Nurseries, Bournemouth, were the winners with an imposing arrangement, Mr. F. W. Welch, Bournemouth, taking second honours with a very pretty group.

Mr. Lloyd was first prizewinner in the class for six table plants. Messrs. Slark and Sprackling were first in the classes for three specimens and one specimen Chrysanthemum respectively. Mr. Lloyd also won chief honours for twelve Zonal Pelargoniums, and Mr. Tompkins was successful with six grand Salvia plants.

Miss Taylor, Salisbury, had a lovely table decoration, and Mr. Wills, florist, Southampton, a charming shower bouquet. Mr. R. Jeffery scored in both classes for shoulder sprays and button-hole bouquets.

FRUIT

made a very fine display. In the open class for three bunches of Grapes, distinct varieties, Mr. W. D. Pope, gardener to L. G. Pike, Esq, Wareham, was placed first with grand bunches, closely followed by Mr. G. Garner, Bournemouth, for second place, and Mr. Usher for third. In the open classes for two bunches of black Grapes, Mr. C. H. Curtis, Blandford, won with well-finished bunches of Appley Towers, and Mr. G. Garner came second with large, well-finished bunches of Alicante, Mr. C. Barrett being a good third with Gros Colmar. Mr. Pope had two magnificent bunches of Muscat of Alexandria in the open class for white Grapes, and he also won in the local division with the same variety. Four dishes of kitchen Apples were called for in one class, and the competition was very keen. Mr. Thomas Beesley, gardener to Earl Nelson, was first, and Mr. C. S. Wady was similarly placed for four dishes of dessert Apples, distinct. Mr. Usher was chief prizewinner in the Pear classes.

TRADE EXHIBITS

and others also, not for competition, made a big display. Gold medals were awarded to Messrs. Cypher, for Orchids; Mr. R. Chamberlain, for floral designs; Messrs. D. Stewart and Sons, Wimborne, for Apples and Pears; and Mr. Usher, for a very extensive collection of vegetables. Silver medals were awarded to the chairman of the committee, for a lovely group of Orchids; Messrs. Cutbush and Sons, for Carnations; and Messrs. Toogood and Sons, for vegetables. Mr. T. K. Ingram, Parkstone, Dorset; Messrs. Cooling and Sons, Bath; Mr. Maurice Prichard, Riverslea Nurseries, Christchurch, and several other local firms put up very charming groups of plants and collections of fruit.

UNITED HORTICULTURAL BENEFIT AND PROVIDENT SOCIETY.

THE monthly committee meeting of this society was held at the Royal Horticultural Hall, Vincent Square, Westminster, on November 8. Mr. Charles H. Curtis presided. Six new members were elected. The death of Mr. Nathan Cole was announced, and the sum standing to his credit in the society's books, viz, £14 14s. 6d., was granted to his nominee. Mr. Cole was one of the founders of the society and had been on the Benevolent Fund eleven years. The amount of sick pay for the past month was £33 15s.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* EDITOR *of* THE GARDEN, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

THE MOST BEAUTIFUL CLEMATISES.

ONE of the most beautiful families of shrubby and climbing plants is the Clematis. Those who have only a slight acquaintance with flowers know the Traveller's Joy (Clematis Vitalba), the misty seed-pods which give a weird effect to the hedgerow in autumn and winter. It rambles over everything within its reach, mingling its silvery colour with the dense glossy green of the Ivy. It is not of the wild Clematis one wishes to write, but the following question has suggested notes upon this beautiful group of flowers: "Would you be so kind as to give me the names of what you consider to be the best hardy, free-flowering Clematises; colour, deep blue, mauve, lavender, and white, none with bars or bands upon them? They are for planting against a wall, but in rather an exposed position, so that I wish them to be hardy and to be at their best during June and July.—J. M."

In reply to this the following lists have been carefully compiled. Species—that is, wild kinds—are enumerated and also the varieties, with a note as to the time they flower and the colouring. All thrive best in a cool soil, such as loam with some lime in it, and in the case of Clematis Jackmanii, C. lanuginosa and their varieties the bases of the plants should be in such a position that the full rays of the sun do not strike directly upon them during the hottest part of the day.

The Species of Clematis.

The following are a few of the more beautiful of the species or wild types: C. alpina, which flowers in April and May, is a Clematis from Northern Europe, and bears lilac or mauve blooms in abundance; there are varieties with white and pink flowers respectively. C. campaniflora, a Portuguese Clematis, with white, mauve-tinted flowers barely 1 inch across, is of strong growth and suitable for the wild garden; the flowering period is from July onwards. C. Flammula is well known; its fragrant white flowers, which appear in August, are familiar. The charming variety rubro-marginata has flowers margined with red. C. florida, a native of Japan, is the parent of one of the types of Clematis which give beauty to the English garden; these bloom in May and June and must not be pruned in spring. C. lanuginosa is the parent of many of the largest-flowered garden varieties which bloom from July onwards; all the varieties of this type require to be pruned fairly hard in February. C. montana is one of the most beautiful climbers we possess. Its glistening white flowers cover the leaves with their beauty during May and June. A lovely form of it is called rubens, which has reddish flowers. C. orientalis is easily recognised by its small yellow flowers, which appear in August; it is, however, less beautiful than the variety called tangutica, which has larger flowers of richer colour, and these appear from July onwards. C. patens is another Clematis from which many garden varieties have been obtained. The forms of this have white or blue flowers in June; the species is found both in China and Japan. C. Viticella produces many garden varieties, while it is one of the parents of the well-known C. Jackmanii. The growth is strong and the purple flowers appear in profusion.

Selection of Varieties.

C. florida Varieties.—These all flower in May and June from buds on the wood matured the previous year. Belle of Woking, silver grey, double; Comete, white, with mauve stamens; Countess of Lovelace, double, mauve; Duchess of Edinburgh, white, double; Elaine, blue, double; John Gould Veitch, lavender, double; Lucy Lemoine, white, double; Proteus, rose purple; Undine, blue, double.

C. patens Varieties.—These varieties, like the foregoing, blossom from wood matured the previous year; consequently, no pruning must be done in spring. Albertine, white, semi-double; Albert Victor, deep lavender, with pale bars; Edith Jackman, white, flushed mauve; Fair Rosamond, blush white, with red bars; Lady Londesborough, silver grey, pale bars; Lord Londesborough, mauve; Miss Bateman, white, red anthers; Mrs. Quilter, white; Sir Garnet Wolseley, pale blue, with reddish bars; Standishii, lavender blue; The Queen, pale lavender; Uranus, blue.

C. lanuginosa Varieties.—These varieties commence to flower in July and continue for a couple of months. The branches may be pruned fairly hard in spring, say, to within four or five buds of the base of the previous year's wood. Alba magna, white; Beauty of Worcester, bluish violet; Duke of Norfolk, deep mauve, with broad, pale bars; Fairy Queen, pale flesh, with pink bars; Gem, deep lavender; Grand Duchess, white, flushed rose; Lady Caroline Neville, blush white, mauve bars; La France, violet purple; Lord Neville, blue; La Gaule, white, semi-double; Louis Van Houtte, violet purple; Mme. Van Houtte, white; Marcel Moser, pale lavender, with violet bars; Princess of Wales, deep bluish mauve; Ville de Paris, white, tinged lilac.

C. Jackmanii Varieties.—All the varieties belonging to this group flower on young wood, and are improved by being cut back to within a bud or two of the base of the previous year's wood in spring. They blossom from August onwards. Alexandra, reddish violet; Earl of Beaconsfield,

purple; Gipsy Queen, purple; Jackmanii superba, rich purple; Jackmanii alba, white; Jackmanii rubra, red; lilacina floribunda, grey lilac; Mme. Edouard Andre, red; magnifica, reddish purple; Rubella, purple; Snow White, white; Star of India, purple, red bars; Ville de Lyon, red.

C. Viticella Varieties.—All these blossom on young wood from July onwards. The branches may be cut fairly hard back in spring. Ascotensis, blue; kermesiana, red; La Nancienne, violet, double; Othella, purple; rubra grandiflora, red; Othello, white and purple. Clematis Durandii is a very pretty, bluish-flowered hybrid which is said to contain C. integrifolia blood. It is of good constitution and blossoms very freely from July onwards. There is a paler variety called pallida. D.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

December 1.—Royal Horticultural Society's Show of Colonial Fruits and Bottled British Fruits. Opening ceremony at 12.30 p.m. by Her Royal Highness the Princess Louise, Duchess of Argyll, with the Duke of Argyll, K.T., G.C.M.G., G.C.V.O. Lecture at 3 p.m., by Mr. R. Newstead, A.L.S., F.E.S., on "West Indian Plant Insect Pests." Cinematograph displays and lectures, 12.30 p.m. to 6 p.m., 2s. 6d. Royal Horticultural Hall, Vincent Square, Westminster.

December 2, 3 and 4.—Royal Horticultural Society's Show of Colonial Fruits and of Bottled British Fruits, 10 a.m. to 6 p.m. Cinematograph displays of Colonial life and work. Lectures. Admission, 1s. on first day, 6d. on second and third days. Royal Horticultural Hall, Vincent Square, Westminster.

The Perpetual Flowering Carnation Society's forthcoming exhibition.—The next exhibition arranged by this society is to be held in the Horticultural Hall, Vincent Square, Westminster, on December 8. The annual dinner of the society will also be held on the evening of the same day at the Hotel Windsor, Victoria Street, Westminster. The schedule is an exceedingly good one, and an excellent show of these charming winter flowers should be made. Section C, including seven classes, is for amateurs only, *i.e.*, for those who cultivate their Carnations themselves, or who are only assisted at the most by a "part-time" helper, and the committee hope that these amateurs will put up their own exhibits. The hon. secretary is Mr. Hayward Mathias, Lucerne, Stubbington, Fareham, Hants, and he will be pleased to send full particulars to anyone who requires them.

International exhibition at Brussels, 1910.—We have received from the horticulture committee of the Royal Commission, Brussels, Rome and Turin Exhibitions, 8, Whitehall Place, London, W., the schedule of the horticulture group of the Exposition Universelle et Internationale de Brussels, 1910, and find that it is a very extensive and comprehensive one. Practically all kinds of flowers are catered for, and there is an extensive section devoted to fruit. Floral art and garden architecture will also be encouraged, a large number of classes being devoted to these. Plant novelties are also invited, so that altogether the exhibition promises to be a very good one indeed.

Royal Horticultural Society's Club.—The second journal of this club has just been published, and its contents will, we think, be of considerable interest to those who have in any way been connected with the society's gardens. The frontispiece consists of an excellent portrait of Sir Trevor Lawrence, Bart., K.C.V.O., V.M.H., and a good portrait of the Rev. W. Wilks is given. Sir Trevor Lawrence contributes an interesting article on the effects of frosts at Burford in 1909; Mr. J. Fraser gives some interesting reminiscences of Chiswick; Mr. A. du Bottomley deals extensively with Mushroom culture; and the Rev. W. Wilks gives some valuable hints on observation. In addition, there are many interesting and widely varying contributions from members of the club, with a list of members and their addresses.

Royal Caledonian Horticultural Society.—At the November meeting of the council of this society a gold Neill Medal was unanimously awarded to the Rev. J. Aikman Paton, Soulseat, Castle Kennedy, in recognition of the valuable work he is doing in connexion with hybridising tuberous Solanums. The Neill Medal is one which is awarded for research or invention, or for anything which would in any way tend to the advancement of horticulture either in science or practice, and this is the first time such an award has been made.

Presentation to Mr. James Blacklock, Southwick.—Mr. James Blacklock, gardener to Sir Mark J. MacTaggart-Stewart, Bart., at his Kirkcudbrightshire seat of Southwick, Dumfries, has been presented by a number of friends with a gold watch as a token of their high esteem for him on the occasion of his retirement from Southwick and his leaving the district. Mr. Blacklock has been for many years gardener at Southwick, where he has done much good work, not only in a horticultural sphere, but in various public capacities. He has been in poor health for some time, and is leaving to take up residence at Crossmichael, and this was taken opportunity of to show the respect entertained for him by those with whom he was associated. Mr. Blacklock has often officiated as a judge at shows, and has been very helpful to his brethren of the craft in the district. Mrs. Blacklock also received a gift.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Polygonum baldschuanicum not flowering.—I have two plants. One, three years planted, on an open verandah (outside) facing south, has climbed over the roof and above the top of the first-floor windows. This has been a mass of white flowers for many weeks, the most ornamental climber in the garden after the Roses. The other, four years planted, between two old, much-pollarded Elms, open only to the east, has grown as rampantly as the first, but has scarcely had six flower-spikes this summer. The two plants, however, came from different nurseries, so we are no "forrarder."—A. O. W., *Ulcombe, Kent.*

—— I read with interest your notes on Polygonum baldschuanicum. I have had a plant for six years which has not flowered, but which grows rampantly. This plant was brought from Paris. Last year I got one in Dublin. The latter has flowered well. The two plants are within 20 feet of each other. I consider that there must be a non-flowering variety from this behaviour. It (the flowering one) was killed last week by the frost; up till then it was a mass of bloom.—W. MACCARTHY, *County Limerick.*

"Accidental crosses" in Ferns.—"N. B." writes: "In referring to the article on Ferns in THE GARDEN for October 23, there is an allusion to 'accidental crosses.' Will you please say if Ferns can be hybridised, and, if so, how it is done?" The fact that varieties, and even species, of Ferns can be crossed or hybridised is placed beyond all doubt by the existence of a number of forms clearly showing the combined character of two distinct parents, sometimes intentionally brought about and in others accidentally obtained by chance intermixture of diverse spores. Owing to the microscopic size of the equivalents of pollen and stigma, which are formed underneath the little green scale produced by the spore, it is practically impossible to cross-fertilise in the same simple way as with pollen, and the only way to bring about a combination is to sow the spores of the two selected parents, which should be very distinct to ensure any definite results, somewhat thickly together in the same pan. When the prothalli, the little green scales aforesaid, are full size, *i.e.*, about the size of a herring scale, and the fertilising period arrives, swarms of tiny motile, ciliated organisms, the equivalent of pollen grains, issue from the under side of the prothallus and find their way, by swimming, to ovaries, or embryo seeds, embedded therein a fraction of an inch distant. Obviously, therefore, self-fertilisation must be the rule, since these organisms cannot possibly pass from one scale to another unless carried thither by water. This being so, the best plan at this juncture is to lower the pan into water until it rises and just floods the prothalli. The water should be tepid and the partial submersion last half an hour or so.—C. T. DRUERY.

Mildew-proof Roses.—In THE GARDEN for October 30 (page 527), Mr. W. J. Chapman asks for a list of mildew-proof Roses. As far as my experience goes—and that extends over thirty years—I am convinced that there are very few varieties absolutely proof against this annoying disease. Might I also say that even a bad attack one year is no proof that the following season will also be a bad one in respect of mildew. Last year (1908) the bushes here were really badly affected, notwithstanding a large amount of labour expended on applying so-called remedies. This year there has been practically no appearance of the trouble, and yet not once have I used any fungicide on my plants. The same thing happened some dozen years ago, while I was in charge of another garden, so that it seems that the weather is the main or only cause of mildew. Nor does a bad attack of mildew appear to injuriously affect the next season's crop of bloom, as this year we have had an excellent show of beautiful flowers. I append a short list of the varieties that seldom suffer to any extent in this late, cold district; it may interest Mr. Chapman and other Rose-growers. Captain Hayward, Caroline Testout, Clara Watson, Dean Hole, Duchess of Albany, Exquisite, Grace Darling, Grüss an Teplitz, Hugh Dickson, J. B. Clark, Jeannie Dickson, Lady Ashtown, Le Progrès, Liberty, Mme. Ravary, Marquise Litta, Mavourneen, M. Paul Ledé, Mrs. Aaron Ward, Mrs. David McKee, Mrs. J. Laing, Mrs. W. J. Grant, Mrs. R. G. Sharman Crawford, Pharisaer, Prince de Bulgarie, Suzanne Marie Rodocanachi and Ulrich Brunner.—C. BLAIR, *Preston House, Linlithgow.*

Mimulus (Diplacus) glutinosus. This is much hardier than is supposed. Three plants in different exposed but dry situations all stood last winter and flowered all the summer. But the roots must be well drained, *e.g.*, on a rockery. The colour is much deeper when so treated than when grown under glass (flowers enclosed).—A. O. W., *Ulcombe, Kent.*

A gold medal for new Roses: A suggestion.—Two classes of new Roses come before the public every year at the National Rose Society's exhibitions and exhibitions of kindred societies. The first class are seedling Roses or sports "either not yet in commerce or not first distributed earlier than November" of the preceding year. The second class are "Roses offered for the first time in the lists issued by the nurserymen of the British Isles in the spring of" three years ago or subsequently. Any Rose in the first class, if exhibited, is eligible for a gold medal; but for a Rose in the second class, other than those termed "seedlings or sports," no distinguishing mark of approval is available. At present the gold medal of the National Rose Society is confined to Roses that are practically not out of the

raiser's hands; to Roses untried in climates not their own; while for new Roses of the second class which have been in commerce long enough to have their merits tested nothing is done. A Rose in this class may be good or worthless, but there is no means by which the National Rose Society can set its stamp of approval on any one of them. Surely it is desirable, considering the many excellent Roses that are being raised and distributed beyond the British Isles, that all new Roses, whether British, American, Continental or otherwise, should not only be eligible, but should have equal facilities, for obtaining the highest commendation of the National Rose Society. Can anything be done in this direction? Can any method be devised whereby the Rose-loving public shall be able to know the opinion of the National Rose Society on the best of the new Roses sent out during the last three years, and at the same time give the raisers of such varieties an encouraging award? May I offer a suggestion? Continue the present system of awards for seedling Roses and sports; awards made on the day and at the time of their exhibition; there is no need to abolish that. But, in addition, arrange for an award for the best new Roses, given when the season is over, and, after mature consideration, to any Rose of any nationality which comes within the term of "a new Rose" as defined by the National Rose Society. How shall we set about our task? Among other points, information will be required as to the ever-blooming qualities of the Rose; has it been seen in good form in public; has it been exhibited at early, midseason and late shows? To be good at one exhibition is not enough. We shall want reports of the Rose. Therefore, let the National Rose Society, in addition to the three exhibitions held by the society, select, say, three forthcoming exhibitions of other societies at which new Roses shall be staged. It is deemed advisable the National Rose Society might provide the classes for these. The judges at these additional exhibitions shall be asked to send comments to the hon. secretary of the National Rose Society on any Rose or Roses in these classes which may be thought worthy of notice. Remarks individually or collectively to be submitted in writing. A select committee shall be appointed, to meet as early as possible after the autumn exhibition of the National Rose Society, to receive the reports and to confer as to the merits of any new Rose seen by the committee or any one member, with a view to recommending any Rose or Roses as worthy of a gold medal. The report to be submitted to the general committee at the November meeting.—JOSEPH H. PEMBERTON.

Lilies of the Valley for table decoration.—Now that the flowers in the outdoor garden have been destroyed by frost, we must rely upon the greenhouse for blossoms to decorate the dinner-table, and nothing is more welcome than the dainty, wax-like and fragrant spikes of Lily of the Valley. If retarded crowns are bought and potted about eight in a 4½-inch pot, then plunged in Cocoanut fibre over the hot-water pipes and kept dark and moist, flower-spikes will be quickly pushed up. I find that as soon as the leaves are an inch or 2 inches high it is safe to admit a little light and more air, and after a day or two lift the pots out and stand them on the greenhouse stage. When cutting these forced flowers, take them off close to the soil with leaves intact. The simpler these are arranged on the dinner-table the better, a low, green vase loosely filled forming a charming feature.—C. M.

Gardening for profit.—Your leading article on this subject, in the issue of THE GARDEN for November 6, is well timed, and so entirely agrees with one's own experiences that a few words by way of endorsement may not be out of place. Over and over again are questions put to one, by people possessing not the smallest elementary knowledge of gardening, as to whether it were possible to make a living by growing this or that for market. Twice recently have correspondents enquired as to the possibility of growing Violets for this purpose; another was possessed of an outhouse and shed and was desirous of "forcing early vegetables"; while yet another was most anxious to obtain sufficient information to enable him to grow Mushrooms. Another was hopeful of making a profit out of growing Daffodils for market from an orchard of very old standing. In each of these instances the would-be growers had not the smallest idea of the work; yet from something they had read they were prepared to risk large sums of money in these and similar ways. Doubtless not a few have been led to make the enquiries after reading the glowing accounts of the fabulous profits arising from such work as given in the daily Press from time to time, and correspondents clamouring to become millionaires have desired to go and do likewise. To each and all of the many such applications as I have received I have endeavoured, first, to disabuse the minds of correspondents, and, secondly, to dissuade them from making the attempt. Of my own knowledge and the experience of years, I know that the market commission salesman has no more difficult task than that of refusing to accept driblets at intervals from would-be cultivators of this sort, though the information that there is "no market for such goods" is rarely credited. Those who seek to "grow for market," and with only half an acre or an old Apple orchard at their command, surely have not realised that even on a single morning thousands of bunches of the more popular sorts of flowers are disposed of in a few hours; hence the half-dozen bunches of Mignonette or the few Sweet Peas these very small growers would be able to send would be lost entirely. Those who are so particularly anxious to grow for market on the lines indicated would hardly give the subject a second thought could they but see the tons of waste material often carted away from some of the big markets on a single morning. It is in these circumstances, therefore, that one cannot offer a word of encouragement to the inexperienced who would attempt "gardening for profit" on these lines. It is quite another matter if, having a desire to grow plants and flowers, and in this way add a few shillings or pounds to their little all, they take up the cultivation of Pansies, Violets, Auriculas, Sweet Peas, bedding plants or the like, and dispose of them in the locality in which they reside, for then a certain profit may result. But to attempt to enter into competition with those whose life's work it has been, with acres of land or glass houses, or both, at their disposal, savours of the veriest madness, the result of which would be failure, dismal and complete.—MARKET GROWER.

THE KITCHEN GARDEN.

CABBAGE LETTUCES IN SCOTLAND.

THE Lettuce is the most important and wholesome of our salading plants, and the Cabbage varieties have been so much improved of recent years that it is hardly worth while troubling with the Cos section. I have to maintain a constant supply of perfectly blanched, tender Lettuce for as long a season as possible; so after many experiments with the varieties offered by the various seed merchants, I have now secured four or five sorts that give entire satisfaction at table, and that have also the strong recommendation of standing quite a long time in good condition. For earliest supplies I invariably rely on Carter's Holborn Standard. It is not the largest variety, but is of fine, compact growth and delicate flavour. Besides doing admirably as an early sort, it may be grown all the summer with the best results. New York Giant is our largest sort, but never grows coarse; it is as crisp and delicate in flavour as the finest Cos. Dickson's Pearl is a fine new Irish sort that does very well here, but should not be grown for lat use, as it is rather more tender than the others named. Iceberg is another Irish-raised Lettuce, and, although an older sort, is here of even better quality and grows to a larger size than Pearl. It is very crisp and of delicious flavour. The last variety I will mention is Sutton's Heartwell. It is a splendid Lettuce, especially in a dry summer. The leaves are very broad and smooth, but it "hearts" well, and so is appropriately named. It stands a long time in good condition.

Preston House, Linlithgow. C. BLAIR.

LILIES OF THE VALLEY USED FOR TABLE DECORATION.

COARSE CARROTS.

RECENTLY, on going through a well-kept kitchen garden, my attention was called to a splendid bed of Carrots—large, straight roots, which,

however, were not liked in the dining-room, the smallest roots possible of this variety being used and the large ones rejected, and I was asked why such fine roots were found fault with. We have in the past somewhat overlooked quality, and mere size, even when the roots are of the best shape and colour, is not always acceptable. Large Carrots of certain varieties have a hard yellow core. This many persons object to, and it is a point growers should not overlook. It is a very simple matter to grow small, sweet roots. I am aware that for exhibition small roots would lose points.

For years in THE GARDEN I have advocated, instead of one large sowing in the early spring, three or four sowings during the year—an early one in February on a south border, another in the open in May for the late summer and autumn supply, and a larger July or August sowing. These last-sown roots remain in the soil. The Carrot is quite hardy, and if one of the Short Horn types are sown, sweet, tender roots may be had all the year round. G. WYTHES.

GREENHOUSE.

AN AUSTRALIAN SUNDEW.

(DROSERA BINATA.)

OUR own British Sundew (Drosera rotundifolia) is a well-known plant in damp, boggy spots, where it forms charming little rosettes of roundish leaves, every one of which is thickly studded with hairs, each hair being tipped by a small drop of glutinous liquid.

From this well-known kind the species herewith figured differs widely, as the cylindrical-shaped leaves are very curiously forked, and, being borne on rather long stalks, the entire plant, irrespective of the flower-spike, reaches a height of 6 inches to 8 inches. When in bloom, as may be seen in the accompanying illustration, this height is considerably exceeded. As a flowering plant this Sundew is certainly worthy of note. It is a native of Australia, and is often known by the specific name of dichotoma. Where fully exposed to the sun the leaves and translucent drops frequently become reddish. Under the name of Drosera dichotoma rubra this form was given a second-class certificate by the Royal Horticultural Society on September 16, 1879, but the peculiarity did not prove to be a permanent feature. This Australian Sundew can be very readily propagated by cuttings of the stout, fleshy roots, cut up into pieces about an inch long and laid in pans in a mixture of finely chopped sphagnum moss and silver sand, placing them afterwards in a warm house.

ONE OF THE AUSTRALIAN SUNDEWS (DROSERA BINATA).

These exotic species of Drosera cannot be regarded as popular plants, and it is but rarely that they can be found in nurseries. Perhaps some day the fashion may change, and these, with hosts of other interesting plants, be rescued from the comparative neglect into which they have now fallen. During a period of between forty and fifty years that I have been connected with horticulture I have seen the rise and fall in popularity of many classes of plants, and find that now it is only the showy and quick-growing which hold their own, the pretty and interesting being to a great extent passed over.

To return to the greenhouse species of Drosera, the "Kew Hand List" contains the following: Drosera auriculata, a curious climbing species from Australia; D. binata, above referred to; D. burkeana, from Natal; D. capensis, from South Africa; D. spathulata, like the two immediately preceding this, is one of the rosette-growing kinds and comes from Australia; and D. ramentacea, from South Africa.

To these must be added the nearly allied Drosophyllum lusitanicum, which forms a somewhat woody stem, at the top of which the long, slender leaves are disposed. This Drosophyllum exists under drier conditions than the Droseras, which need for their successful culture a liberal amount of atmospheric moisture. As a rooting medium they delight in a mixture of peat, sphagnum moss and silver sand, with a surfacing of live sphagnum moss, which, when growing, seems very conducive to the welfare of the Droseras. Given plenty of moisture, they thrive in a sunny spot.

When grown in a position where small flying insects abound, these Sundews often catch so many that the beauty of the plant is thereby impaired. The same applies to any particles of dust which may happen to be floating about, as the glutinous tips catch all that may be present. For this reason they are sometimes covered with bell-glasses, not for the sake of the extra warmth, but to keep the leaves in good condition. H. P.

THE FLOWER GARDEN.

ROOT PROPAGATION OF HARDY HERBACEOUS PERENNIALS.

NO phase of gardening is more fraught with interest than the general propagation of plants. That numbers of plants reproduce themselves a hundredfold by means of their roots is well known, and we have instances of this in mere weeds, as, *e.g.*, the Dock and the Dandelion, or in the garden in certain sections of the Michaelmas Daisy. In these directions, however, the knowledge we possess of these facts is of service in assisting to keep such rampant-growing plants within proper limits. But other plants display a marked tendency to reproduce their kind by means of roots, which, however, are of little value to the gardener for some reason or another. Of these the Heleniums and the Phloxes are instances, and as the plants are easily increased by cuttings or division in the usual way, their multiplication by any other means is neither desirable nor profitable. But there are other instances where root propagation is of much value, and particularly so in those cases where the plants, producing no cuttings in the usual way, are also difficult to increase by seeds or division of the roots. Now and again one meets with a plant which rarely produces a fertile seed in this country at all, and which is also almost impossible to increase by the ordinary methods of division. Such a plant is Senecio pulcher, an invaluable plant during the late summer and early autumn months, and one but rarely seen in good condition. Hence root propagation in such a case is of great value, and prevents so good a plant being lost to cultivation altogether. Then there are certain other plants which, while producing seeds in plenty and being available at a cheap rate, are so slow, and uncertain, often enough, to vegetate that other methods of increase show an unmistakable advantage in point of time. Of such things the Statices afford a good example, and there are others where this same method of root propagation is a decided gain in this direction.

From another point of view, root propagation is of great value to the specialist, as by its means selected examples of certain plants which cannot be relied upon to come true from seeds may be readily increased and always prove true to their kind; that is to say, while the flowers or seeds are exposed to cross-fertilisation by insects, the roots still retain the true character of the individual plant in its entirety. Hence it cannot be denied that the root propagation of plants is to the gardener a most useful and valuable asset, and a means in certain instances to be made much of.

Quite recently many of our readers have made enquiries into this method of plant propagation, and the subject being of a seasonable nature, we give in greater or less detail the essential items for its successful adoption. Happily for those interested, the work may be carried out during the winter season, and, indeed, the dormant period of the subjects is the best time. What has to be done is to lift a good-sized plant

from the open ground and detach as many of its roots as may be deemed expedient and safe. The detached roots should then be taken to the potting-shed and cut into lengths of about 1½ inches, taking care at this juncture that the uppermost ends of the roots, *i.e.*, the end which was nearest to the rootstock before being cut away, are kept uppermost throughout. By laying the root lengths in order as cut, no subsequent confusion need exist on this head, and the work of cutting up completed, the root-cuttings should be forthwith inserted. The manner of dealing with these cuttings subsequently is to prepare some well-drained pots or pans, the former for preference, and fill them rather more than half full of rather sandy soil. At this point it will be necessary to gauge the cuttings and to determine whether more soil should be added to the pots or some removed. When the cuttings are inserted and the work completed, the apical portion of the cutting should be just visible above the surface of the soil and level with the rim of the pot, the cuttings being placed around the interior of the rim in a not quite upright position. In this way the operator can judge for himself as to the work being rightly done. The cuttings should be placed around at about a quarter of an inch apart or thereabouts, or at a greater distance if there is no scarcity of room. When the root-cuttings are in position, the remaining space should be filled with soil, taking care not to displace the cuttings in doing this. By making the soil of a sandy nature new root-fibres are more quickly formed when, presently, top growth begins. The best position for these pots of root-cuttings is in the greenhouse frame, where a slight warmth, say, of 45° or 50° obtains. Given one good watering when the work is completed, the pots in the position and warmth suggested will require no more for a fortnight. If no frame is at command, the pots of cuttings may be plunged in fibre or sand in pots of much larger size, and, by placing a sheet of glass over all, secure that degree of uniformity which is so desirable.

All that is now necessary is a little patience, and a month or six weeks may elapse before any signs of new life are seen from the apices of the cuttings. First we see a swelling or callusing of the surface, and subsequently miniature protuberances that develop into shoots, the latter often appearing quite numerously. So much so is this the case that in the larger-rooted species of plants, such as Anchusa italica and the Japanese Anemones, it has been found desirable to halve or even quarter the roots longitudinally before inserting them—a sort of *multum in parvo* method that possesses a greater value to the commercial than to the amateur. The most serviceable size of root is that about the equal of a cedar-wood pencil for the largest, and say half that size for the smallest. This way the largest roots are secured to the plant. Though I have recommended covering the cuttings with a glass frame, care should be taken to ventilate now and again and to avoid that wet, stagnant condition which may give rise to decay rather than growth. Forcing by an excess of heat is injurious, and will merely produce the top shoots before any root-fibres are present to sustain life. Fleshy roots full of vitality are essential; old roots that have become hard and wiry are usually valueless. The after-treatment of these root-cuttings, and when they shall have become little plants, is simply that given to small seedlings requiring to be individualised to produce the best results; and when this is done the genial conditions of a frame or a greenhouse will be found highly beneficial. There need be no hurry to do this, however, and only when small leaves appear, giving evidence of activity at the root, should the work be taken in hand. A host of plants respond to this particular treatment, but I have no intention of preparing an exhaustive list. A few of the most important, however, are Anemone japonica, Anchusa, Gaillardia, Senecio pulcher, Primula (the roots of which are small), Stokesia, Eryngium, Echinops, Statice and the perennial Poppy, none of which, save the Anemone, affords the least external evidence of an amenability to respond to a method of treatment which is as valuable to the gardener as it is interesting and instructive to the student.

E. H. JENKINS.

A BED OF PERPETUAL-FLOWERING CARNATIONS.

PERPETUAL-FLOWERING CARNATIONS FOR SUMMER BEDDING.

I ENCLOSE a photograph, taken in August last, of a bed of Perpetual-flowering Carnations growing in a villa garden in one of the most crowded suburbs of London. As you will see, it is a collection of mixed varieties. These were planted out in May from 5-inch pots, and the owner says they have been one mass of buds and blooms from early June until the present time, *i.e.*, November 5. The only regret he has is that he has no greenhouse, so as to be able to lift and pot them and so allow them to continue flowering during the winter. This, considering our wretched summer, is decidedly good. I take a particular delight in forwarding you this photograph, because it was THE GARDEN who reported our experiments in this matter of using Perpetual-flowering Carnations for summer flowering some four years ago at Messrs. Low and Co.'s of Bush Hill Park. You have also had repeated notes on the subject. This year we have seen experiments carried out by the Perpetual Flowering Carnation Society in the Botanic Gardens, Regent's Park, and by the Royal Horticultural Society in its gardens at Wisley, while the very fine bed of Britannia in Hyde Park has been one mass of bloom from the early spring and a great source of admiration to all. It is interesting to note that the plants in Hyde Park were planted out in May from 7-inch pots, and had been blooming all the previous winter under glass.

MONTAGU C. ALLWOOD.

Bush Hill Park Nurseries.

A CLUSTER OF THE MOCCASIN FLOWER (CYPRIPEDIUM SPECTABILE).

THE MOCCASIN FLOWER.

(CYPRIPEDIUM SPECTABILE.)

THE finest of all the hardy Cypripediums and commonly known as the Moccasin Flower, C. spectabile is one of the most amenable to cultivation in this country. Planted in a shady border and in congenial soil, the plants will in time make large tufts, throwing up many stems from 1 foot to 3 feet high. These growths are clothed with broad and somewhat hairy leaves, and bear one to three flowers at the top. The flowers are very handsome, with broad, rounded outer segments, which are usually pure white, but sometimes tinted with pink. The pouch is large, rosy in colour, but varying in shade a good deal. There is in cultivation also a pure white variety, but it is still somewhat rare.

All the hardy Lady's Slipper family are popular favourites, and possess an attraction that encourages one in spite of difficulties to

cultivate them. But they do not flourish in all gardens, although suitable places might be found in most for the stronger-growing kinds. The species illustrated, with C. acaule, C. hirsutum and C. montanum, will enjoy a mixture of rough peat, fibrous loam, well-decayed leaf-soil, with a little sand and charcoal, while some chopped sphagnum moss incorporated with it is helpful in retaining moisture.

Our native C. Calceolus, with the Siberian C. macranthum and ventricosum, require soil of a more loamy and limy nature. They all like somewhat shady positions, and are mostly found growing in open woods, although C. spectabile is frequently found in more open, marshy places. Their roots enjoy running among the decayed leaves that have been accumulating for many years, and in selecting a spot in which to plant any of the Cypripediums it would be well to bear this in mind. A low-lying spot in the rock garden that is thoroughly well drained would be suitable, provided that there is the necessary shade.

After selecting the position it will be necessary to make a bed of soil in which they will grow.

TREES AND SHRUBS.

EARLY FLOWERING SPIRÆAS.

THE accompanying illustration of Spiræa arguta directs attention to an exceedingly beautiful and useful group of hardy shrubs. A great many species are included in the group, but for general purposes a few of the best only are required, and it is to those that the following notes allude. S. arguta, as will be seen in the illustration, is a very floriferous shrub, and if a census of the most ornamental shrubs were taken it would certainly be placed among the first dozen. Although it has only been really well known for about fifteen years, it has in that time become exceedingly popular and is to be found in many gardens. It is of hybrid origin and claims the early flowering S. Thunbergii as one parent. Attaining a height of 5 feet to 6 feet, it forms a shapely bush made up of numerous thin, wiry branchlets on a comparatively small number of main branches. These branchlets are clothed with tiny, light green

ONE OF THE BEST EARLY FLOWERING SPIRÆAS (S. ARGUTA).

As they are not deep-rooting plants, it will only be necessary to take out the original soil to the depth of just over 1 foot. If the soil is heavy, plenty of drainage in the shape of bricks broken up small will be needed; but if the soil is sandy, little will be necessary. Then fill up with the compost recommended above.

The best time to plant is in the autumn as soon as the foliage dies down or the crowns can be procured. They should never be allowed to get dry, as the fleshy roots soon shrivel up if the plants are kept out of the ground too long. In planting make a wide hole, so that the roots can be spread out horizontally with the crowns about 2 inches below the surface. Well work the soil in between the roots and make the whole fairly firm, but care must be taken not to injure the crowns.

Any of these hardy Lady's Slippers, when well grown, add much to the beauty and interest of the garden, and well repay any trouble that may have to be taken in their culture, which, as described above, is not so difficult as to deter any lover of hardy plants from making the attempt. W. I.

leaves during summer, and throughout April with small heads of snow white flowers, which all appear from the upper sides of the branches, the flowers being so numerous as to completely hide them. It is an excellent shrub for a specimen plant, a large group, or for forcing. In some trade establishments the same plant is met with under the names of multiflora alba and arguta multiflora.

S. Thunbergii, a native of China and Japan, is another worthy representative of the group. It forms a bush 3 feet to 4 feet high of peculiarly pleasing outline, with the daintiest of pale green leaves. So pleasing, in fact, is the combination of habit and foliage that the plant is worth growing on that account alone, leaving out the question of its pretty tiny, white star-shaped flowers, which commence to open in February and are at their best in March.

S. conferta, a hybrid between S. cana and S. crenata, is also a floriferous white-blossomed plant, while S. media, a European species which is sometimes called S. confusa, flowers with great freedom, the flowers being borne in flattened heads. This species is a particularly useful one for forcing, and well repays the small amount of trouble it requires. S. prunifolia fl.-pl. is rather a loose-growing shrub which bears tiny, double white flowers freely in spring. Unfortunately, it is rather susceptible to late spring frosts, and young shoots and buds are sometimes badly cut. It is, like the foregoing plant, an excellent shrub for forcing.

The two strong-growing sorts, S. trilobata and S. van Houttei—the former an Asiatic species, the latter a hybrid—are both excellent free-flowering shrubs, which grow at least 7 feet or 8 feet high and blossom during May.

All these Spiræas are of easy cultivation and thrive in ordinary garden soil, that of a loamy character being the most desirable. Some, in fact most of them, can be increased by means of cuttings of semi-ripe shoots inserted in sandy soil in a close case in summer; but difficulty is often experienced with S. Thunbergii and S. arguta, and in the case of these, if the cultivator fails with cuttings, he would do well to try layering. As a rule these early-flowering Spiræas do not require much pruning, but an occasional thinning out or cutting back after flowering may be given if the plants are outgrowing their positions. D.

THE FRUIT GARDEN

FRUIT NOTES.

PRUNING SMALL FRUITS. There are many gardens of such limited area that accommodation cannot possibly be found for Apples, Pears, Plums and other large fruits, except it be a few trained trees on the walls; but it is rare indeed that space cannot be found for Gooseberries and Currants, with a good row or two of Raspberries. There can be no question as to the desirability of including these plants, for with reasonable attention at the proper time they will yield crops of fruits which are certain to meet with ready appreciation either for use in a fresh or preserved state. Taken from one's own garden the fruits will be perfectly fresh, and they can be secured in splendid condition, while the quality from well-grown bushes is sure to be infinitely superior to any that can be purchased from ordinary vendors.

Much of the success which is achieved in their culture will depend upon the manner in which they are dealt with during the late autumn, as well as in respect of attention to the soil and of pruning the growths. The trees are comparatively gross feeders, and immediately the cutting can be finished—some months before in the case of Gooseberries, as will be pointed out in due course—the whole surface of the ground beneath them should be cleared of weeds, lightly pricked over with a fork, and then have a dressing of sweet manure. In order to prevent this material settling down into a pasty mass in wet weather, the cultivator should go over it now and again and loosen it with a fork, so as to maintain it open for the passage of water and fresh air.

RED AND WHITE CURRANTS. — These fruits carry their crops on spurs on the old wood, and the pruning must, therefore, be hard back each season. In the summer it is an excellent practice to pinch the new shoots at six leaves, and when back buds break to follow this up by pinching the shoots at two leaves as made. Not only does this admit light and air freely to the fruits, but also to the buds at the base, with the result that they become properly ripened and develop their full power of producing fruits. A further advantage which accrues upon this

system is that it reduces the labour of autumn or winter pruning, since nothing remains for the grower to do except cut back the stumps of these summer shoots to the spurs. It is, of course, most desirable that some extension shall be allowed at the extremities, because it encourages root action and draws plentiful supplies of food along the branches to the fruits. It usually suffices to retain about 6 inches, but a little more or less will not make the slightest difference to the ultimate results. This method of spur-pruning should be applied to bush and cordon trees alike.

BLACK CURRANTS.—This fruit is totally dissimilar in its habit of cropping from its Red and White relatives, for it carries its fruits on the younger wood and does not develop spurs. It is, therefore, obviously necessary that the pruner shall proceed on different lines. Instead of starting with the new wood, he must commence on the old, cutting it clean out, and then, if the plant still remains in the smallest degree crowded, such of the young shoots should be removed as will suffice to leave the plant quite open. The centre of the bush should be cup-shaped for the unobstructed admission of light to the inner buds, and the branches should be so far asunder that the doubled fist will pass readily between them in any position.

GOOSEBERRIES. — Birds are so exceedingly partial to the buds of Gooseberries that it is rarely wise to attempt anything in the nature of pruning until the spring, when the worker may proceed on precisely the same lines as with Red Currants, save that he may leave a few new shoots to carry specially fine fruits. Instead of cutting in the autumn, the shoots should be tied up in cone-shaped bundles, so that in any case the birds can only take a limited number of the exposed buds, and these can be almost wholly preserved from their attacks by occasionally throwing lime vigorously into the bushes when the stems are damp after rain; this is not much trouble and does a vast amount of good.

FRUIT-GROWER.

ROSE GARDEN.

NOTES ON NEWER ROSES.

X.—HYBRID TEAS.

(Continued from page 567.)

MARICHU ZAYAS (Soupert et Notting, 1907).—A big flower that promises great things in the bud, but somehow never fulfils its early promise; reminiscent of Danmark in colour and shape. It has disappointed me this year, and I am afraid I cannot recommend it.

Marquise de Sinety (Pernet-Ducher, 1906).—A really yellow Rose that has improved very much in habit of growth and that is a much better grower than I last year gave it credit for. It came safely through the winter, too, so cannot be so tender as is generally stated. It is the deepest yellow of any Rose in cultivation, with the possible exception of Duchess of Westminster. It will occasionally be exhibited if only for the sake of lighting up the box; but it is a garden Rose, and in the South will become popular as a bedder. The buds are splashed carmine-red on the outside of the petals, and in this stage it makes a fine button-hole Rose. I think its constitution will continue to improve. Altogether it is a distinct advance and is worthy of general cultivation, especially in a sheltered garden.

M. Joseph Hill.—*See* Joseph Hill.

M. Paul Ledé (Pernet-Ducher, 1904).—Not quite so good a grower as Joseph Hill, but a very beautiful Rose that I can strongly recommend, with rather more pink shading in its yellow flowers than that variety and slightly more variable in colour. Very fine in the autumn and an excellent bedding Rose. Buds long and flowers of good size and shape, foliage forming a fine contrast. Not recommended as a standard.

Mrs. Alfred Tate (S. McGredy and Son, 1909). I have not grown this Rose; only seen it growing in its home at Portadown. There it was a Rose of great promise, not unlike Betty in the general formation of the flower, but of distinct and generally deeper colouring. A good flower of it is very long in the petal, with a fine point. The raisers think a great deal of it, not without cause, as it is very free-flowering, fragrant and a good grower.

Mrs. Arthur Munt (Alex. Dickson and Sons, 1909).—The raisers have never been able to stage this Rose in anything like typical form for the gold medal of the National Rose Society; but many fine flowers of it have found their way into their boxes of exhibition Roses, and it is a Rose that, under a number and not a name, was well known to me and always enquired for when I visited Newtownards. It is a really good Rose, of fine form and shape; the colour is pale cream, approaching to white as the flower develops; but it is distinct enough—that is, I know no other Rose quite like it. It is a good bedding variety as well as useful to the exhibitor, and I think very highly of it. One cannot but sympathise with the raisers of new seedling Roses when, as must often happen on the day (there are only two, or at the most three, in the whole year when they can put up an exhibit of a new seedling for the gold medal), they cannot find enough really typical flowers of the variety to stage it. Lady Ashtown was a case in point, and I think Mrs. Arthur Munt is another. Time has proved Lady Ashtown worthy of the gold medal. Is it impossible for the National Rose Society now to award it? It should not be. Alteration of existing rules might be necessary, but that is not difficult. I do not see why, because a Rose has been in commerce, say, a year or two, it should be debarred. There should certainly be a way out of the difficulty if one exists.

Mrs. Aaron Ward (Pernet Ducher, 1907).—Very pretty in the bud stage, when there is plenty of colour, but this Rose is distinctly on the small side and opens out into a flat flower with very short petals. The colour is distinct; Indian yellow the raisers term it. The plant is free-flowering and, I am sorry to say, of that habit of growth the catalogues also term free, which, being interpreted, means moderate. Altogether I am afraid I must say I have been disappointed with Mrs. Aaron Ward; perhaps it will improve on further acquaintance.

Purley. H. E. MOLYNEUX.

(To be continued.)

ROSE LADY GAY IN A NORTH LONDON GARDEN.

ROSE LADY GAY IN A HIGHGATE GARDEN.

ROSE LADY GAY was introduced in 1903, and very much resembles Dorothy Perkins. It differs from the latter in having larger flowers, and they are also of a richer rosy hue. Like the majority of this type it is very floriferous and a strong grower. The plants shown in the illustration are growing up two stout Fir poles, with a smaller pole secured to the tops to complete the arch. The Roses were planted three years ago last spring. Owing to the clusters being so large and heavy, they naturally hung in a mass too close to the poles for the photographer to get the best picture.

In addition to its suitability for covering an arch, this Rose is well adapted for pillars, pergolas, trellis-work or for weeping standards. When used for the last-named purpose it should be budded on Briars at least 5 feet high, or more if they can be obtained, as its long growths then have room to show their beauty to the best advantage.

Highgate. C. T.

HYBRID TEA ROSE BETTY.

THIS is, in my opinion, one of the most beautiful Roses raised of recent years, in spite of criticisms passed upon it, but it is strong in growth; and only the other day I gathered from one plant two flowers that for fragrance and freshness of colouring—a warm pink with a suspicion of salmon in it—could not be more exquisite even in the world of Roses. Betty is a beautiful Rose with a pretty name. The plant was in a fairly exposed position on the Surrey Downs. ROSA.

GARDENING FOR BEGINNERS.

HOW TO REPOT ORCHIDS.

GARDEN WORK WEEK BY WEEK.

THE GREENHOUSE AND FRAMES.

The earliest of the Roman Hyacinths will now most likely be showing their flower-spikes, and a few may even be fully opened. These, and all other bulbous plants in full growth, will need plenty of water, and if allowed to suffer for the want of this, blind plants will be the result.

I.—AN ODONTOGLOSSUM WHICH HAS FLOWERED RECENTLY AND IS NOW MAKING ITS NEW GROWTH.

Where a few Duc Van Thol Tulips are required extra early, the pots or boxes in which they are growing may be stood quite close to the hot-water pipes, providing the plants are well watered, and this will quickly force out the flowers, after which they may be stood on the stage and given more light, this inducing the flowers to take on a better colour. Protection in the form of thick mats must now be afforded to all frames containing more or less tender plants and which are not artificially heated. In addition it is a good plan to pack a foot thick layer of Cocoanut fibre refuse or even short straw round the sides of the frame, as this will keep out several degrees of frost.

Fruit Garden.—Vines in cool houses, or even those grown on walls outdoors, will by now have shed their leaves, and no time should be lost in cleaning and pruning the rods in readiness for another season. It is a good plan, especially with indoor Vines, to untie the rods from the wires, remove all really loose bark, but do not forcibly tear any away, wash the rods and all woodwork thoroughly with hot soapy water, and then do the pruning. This, in most cases, consists of cutting back all side or lateral growths to within two buds of their base, and when these form shoots in the spring the weakest or worst-placed one is rubbed out, thus leaving one at each spur. With young newly planted Vines the leader or main shoot will need to be shortened. Unless growth is very vigorous, 18 inches of new wood each year until the available space has been filled will be enough to leave. After pruning the rods may be bent down to the lower wire in the form of a bow, and be allowed to remain thus until growth has well started next spring.

Vegetable Garden.—Where not already done, the Asparagus-bed should be given a thorough cleansing, cutting down all dead stems and clearing them away and burning them. Then scrape off all weeds, and if they are of an annual character, bury them in the alleys or paths at either side of the bed, *i.e.*, where these are of ordinary soil; but where the paths are made of gravel or other hard material, the weeds must be wheeled away and buried elsewhere. A couple of inches of new, clean soil may be spread on the surface of the beds, and thus make them clean and tidy for the winter. The question of manuring the beds at this season is a moot one, but, generally speaking, it is better to give a good top-dressing with partially decayed manure early in February. Advantage should be taken of frosty weather to get manure wheeled on to any vacant plots there may be, and digging and trenching should be attended to on every possible occasion.

Rose Garden.—All newly planted Roses, and also the Teas and Hybrid Teas, must be protected against frost without delay, or much harm will quickly be done. The most simple and effective means of doing the work is to heap the soil up well among the branches of bush varieties, and where there is not sufficient soil so that the work can be done without exposing the roots, some finely sifted material should be procured and placed among the branches as advised. Standards should have their branches neatly and closely tied into a bundle, then firmly secured to a strong stake, and some Bracken, old wine-bottle cases or other coarse, strawy material neatly tied around the whole, so that there is no danger of it being blown away by wind.

The Lawn.—When frost is not present in the soil, the lawn should have attention where the turf is at all bare or where the surface is uneven. It is a good plan to lift all poor and extra thin turf, well fork up the soil beneath, and then relay with new, close turves, finally beating the whole down firmly. In the case of unlevel places, the turf must also be lifted, the soil forked up and made level by adding or taking away, and the same turves returned to their places. In all cases it is absolutely essential that the edges of the turves fit closely together. If any crevices are observed, they should be promptly filled with finely sifted soil and the whole well beaten and rolled. H.

HOW AND WHEN TO REPOT AN ORCHID.

WHEN to repot an Orchid has been a stumbling-block to many amateurs who cannot procure expert advice, and through performing this important operation at the wrong time numerous plants have been irretrievably ruined, or at least it has taken two or three seasons before they recuperated; and who knows how many beginners have been disheartened and have abandoned one of the most fascinating branches of horticulture through this cause.

Fig. 1 represents a specimen of Odontoglossum crispum which has recently flowered from the bulb behind the leading shoot and is now making its new growth, from the base of which roots could be seen if the soil was removed. It is at this period when any repotting must be done, and whether it be a Cattleya, Lælia or Oncidium the principle is the same. Always wait for new roots to appear at the bottom of the current year's growth before attempting any disturbance; then they quickly take to the fresh soil and no harm will accrue. Prior to repotting withhold water for a few days, after which the plant is carefully taken out of its receptacle and some of the back pseudo-bulbs cut away, also a portion of the old material and any dead roots.

I would now draw attention to Figs. 2 and 3; the first shows the front part of the plant and the latter the back bulbs. Both are ready to be repotted. When moving on the majority of subjects a larger pot is required, but with Orchids this is not always necessary; in fact, a smaller size is sometimes required, and in the present instance they would go into a similar pot, while the leafless bulbs should only be given a small amount of space till they have formed a growing point.

Whatever size pot is needed, it ought to be filled one-fourth of its depth with drainage, over which is placed a thin layer of sphagnum or peat to maintain a clear passage for water. The plant is then arranged so that the "lead," or new shoot, is as near the centre as possible, thus allowing sufficient room for two seasons' growth without further disturbance, and the best spikes of flower are produced from the second bulb

2.—THE FRONT OR NEW PORTION OF THE PLANT READY FOR REPOTTING.

when the plant has become strongly established. The rooting medium consists of Osmunda or Polypodium fibre, chopped sphagnum moss and fibrous peat in equal parts, with a sprinkling of crushed crocks and silver sand added, or, to be more exact, a 6-inch potful to every bushel of the mixture. When preparing the compost the Polypodium and Osmunda should be cut into lengths so that it will pass through a 1-inch sieve,

the peat pulled into pieces about the size of a Walnut, and the sphagnum ought to be thoroughly examined for slugs and weeds and washed before it is ready for use. The tools needed are a pair of sharp scissors, to neatly trim the surface, and a stiff, pointed stick, sometimes called a "bedder,"

3.—THE BACK PSEUDO-BULBS READY FOR REPOTTING.

to press down the soil as the potting operation proceeds. The soil must be compressed moderately firm and brought nearly level with the rim of the pot, and just before completing the operation prick in a few living heads of sphagnum over the surface, so that in time the top of the soil will be covered with healthy-growing moss, a condition that Odontoglossums appreciate, for it preserves an equable state of moisture about the roots.

Regarding Fig. 3, directly the plant shown there begins to root freely it may be given more pot room; but unless the variety is a valuable one, and it is desired to increase the stock, this method is not recommended, because freshly imported or semi-established pieces can be bought at such a cheap rate that they are not worth the time and trouble it takes to bring them to the flowering stage.

Fig. 4 depicts the finished plants, and for the next few weeks careful watering is essential. The soil must only be kept just moist, and whenever any doubt exists as to whether water is needed, the safest plan to adopt is this: Let it stand over till the following day, but as growth advances and roots begin to find their way to the edge of the receptacle the supply can be increased with advantage till the pseudo-bulb is fully matured. Odontoglossums need no resting period, as applied to Calanthes, &c., but they are benefited by being kept slightly drier at the base for a few weeks after the season's growth has finished. A temperature of 50° to 65° Fahr. will suit O. crispum admirably, both to be extremes, so the happy medium should, if possible, be the rule. Shade them from direct sunlight and give ample ventilation whenever the weather warrants the opening of the ventilators; in fact, a little air may be admitted throughout the year, providing there are no direct draughts or dry currents of air, which soon take up the atmospheric moisture, a cultural detail which must always be observed. The house will require vaporising occasionally for thrips and other insect pests, but this will be needed less frequent if the inmates are sprayed overhead every alternate week with a weak solution of XL All Liquid Insecticide. SENTINEL.

HINTS ON ROOT-PRUNING FRUIT TREES.

A FRUIT tree must not be root-pruned unless it is absolutely necessary that it should be done. If a tree makes pretty strong growth and the latter ripens and bears good crops of fruit, then root-pruning would be a mistake, as the result of such pruning would be to cause a stunted growth generally.

Root-pruning is absolutely necessary when a young specimen continues to make still stronger growth from year to year, and which does not ripen nor bear fruit. Again, when a young tree has been very severely branch-pruned, and this has caused a too strong growth to follow which has not thoroughly matured, root-pruning is essential. Very severe branch-pruning causes a mop-like growth of sappy shoots which will not be serviceable, and the only thing to do then is to create a balance between branch and root growth. This is done by exposing the roots, as described below, and the reduction of their dimensions. The principles of root-pruning are the restriction of the size of the large roots by cutting them back, and so causing the new growths from them to be fibrous, and the preservation of all existing fibrous roots. The longer the large, fibreless roots grow, the more rampant the branch growth is; the more fibrous the roots are, the better will the branches ripen and bear flower-buds and, finally, a full crop of fruit. When the trees are once brought to this condition, they remain fruitful without further pruning of the roots, the annual crops preventing a too luxuriant production of branches.

Example: A tree with a stem 3 inches in diameter must have a trench opened 3 feet 6 inches from it. All large roots must be cut off, fibrous ones retained, and the trench must be refilled with good, gritty loam, mixed with the original soil, and made firm. SHAMROCK.

THE TOWN GARDEN.

PLANTING SHRUBS.—The present is a very good time to plant various kinds of shrubs, both in the boundary borders as well as isolated ones on the lawn. As a rule, very nice specimens are selected for planting in positions by themselves, and this is quite the right thing to do; but why not plant equally fine specimens in the side or boundary border? A shrub, wherever planted, should form an attractive object, but in putting them in certain borders the chief object seems to be merely the filling up of the space. The border is filled to overflowing, and then one specimen spoils another, so that the border quickly resembles a miniature jungle. When it is intended to plant shrubs and trees in a new garden, care must be taken not to place any specimens in certain positions where they will block views from the dwelling-house windows. If shrubs are judiciously placed they will not only prove an ornament, but also give to the whole garden the appearance of being larger than it really is. Of course, at first shrubs must be put in to fill up—that is, to give a furnished effect immediately—but all the permanent specimens must be planted first sufficiently far away from paths and the edges of borders as to allow ample space for full development, without the necessity for cutting back to such an extent as to spoil the general form and appearance of the shrubs planted.

HOW TO PLANT THE SHRUBS.—Shrubs may thrive for a short time in a shallow soil which has not been trenched, but they will fail lamentably after the lapse of a few years. It is much the best policy to spend a little extra money at first in the trenching of the soil than, later on, in the purchase of fresh plants to replace unsatisfactory ones, which, in turn, will fail too. The natural soil in some town gardens is of very good quality, and it only needs trenching and the addition of a little well-rotted manure. Poor soil, too, must be trenched, and it is certainly advisable to add rotted manure liberally. Having trenched the soil, proceed with the planting of the shrubs. In distant borders, where a boundary screen is required, the common Laurel may be planted; it quickly grows, and will do well when established if hard pruning be necessary. Make all holes several inches wider than the roots of the shrubs that are to be placed in them; do not make very deep holes, but replant the specimens just the same depth that they were when growing in the nursery. Usually there is a mark on the stem made by the soil, which will be a guide as to the depth to plant. The work should be done, if possible, when the soil is comparatively dry and in good working order, as it is essential that the soil be made moderately firm around the roots.

SOME SUITABLE KINDS.—For planting in deep shade: Aucuba japonica, Cotoneaster microphylla and Berberis Aquifolium. For planting in partial shade: Rhododendrons, Azaleas, Euonymuses, Laurustinuses, Hollies, Andromedas, Deutzias and Veronicas. For planting in the open quarters all the above-mentioned kinds may be used and, in fact, nearly all kinds of evergreen and deciduous kinds generally. Beautiful flowering kinds are the following: Azaleas, Deutzias, Laburnums, Forsythias, Lilacs, Viburnums, Ribes, Philadelphus (Mock Orange), Rhododendrons, Andromeda floribunda, Daphne Mezereum and Almonds.

TYING CLIMBING PLANTS.—No doubt the recent rough weather has broken away many branches of climbing plants from the walls, pillars, posts and trellises, and any delay in making them secure again will make matters worse than they are. There are many shoots of Ivy, Ampelopsis, Clematis and Honeysuckle plants that must not be retied to their supports, because these particular shoots would be worthless on account of immaturity of wood and because they would not again cling to the walls. Of course, it is a different matter where such plants are trained to pillars and trellises, as the shoots are held in position by means of tying material and not on account of self-clinging propensities. The tendency is to use matting or raffia as a tying material. For the main tying of the principal branches at this season tarred twine is much the best to use. It will last for a long time, whereas the raffia will not, and is only suitable for the tying up of summer shoots, many of which must be pruned away at the end of the season. AVON.

4.—THE TWO PORTIONS AFTER REPOTTING HAS BEEN COMPLETED.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

ROSES.—When the weather is favourable push along with the planting of Roses. See that the drainage is good and thoroughly work the soil to a good depth; if the land is heavy and wet, arrange 3-inch drain-pipes to conduct the water to a suitable outlet, and at the bottom of each bed place a good layer of old broken bricks or clinkers. Trim the damaged ends of the roots before planting and scatter a little finely sifted soil about the roots of each plant. Make the soil moderately firm and place a good mulch of leaf-mould close to the stems of all tender varieties as a protection against frost.

Herbaceous Borders.—Planting and rearranging may still be pushed forward. Many herbaceous plants require a shift at times to maintain vigour and strength. Young plants springing up from the base of the old ones, if lifted carefully and planted at once, make good flowering plants the following year, and should be attended to.

Rockeries.—Go over these and remove fallen leaves and rubbish to prevent damping and rotting of the more tender species. In mild weather some of the more common plants may be carefully removed to give room and air to the more choice and valuable kinds, taking care to fill up the places at once with suitable soil, and thus encourage the growth of the remaining plants.

HARDY FRUITS.

Bush Trees.—Where room is not too plentiful, this method of growing both Apples and Pears will prove useful. Select good varieties, and do not plant the young trees too closely; a space of 12 feet should be allowed between the trees, so that plenty of light and air can circulate freely among the branches when in a bearing stage, and 6 feet from the edge of the paths is quite near enough to plant. Fruit trees are more frequently than otherwise planted too closely, and as the trees increase in size they soon get too crowded to be fruitful. Keep the branches of all trees of fruiting size well thinned; prune side shoots rather close, also the leaders if they have reached the size required. Prune the leaders of young trees back to within 12 inches to 15 inches of the previous year's wood, always cutting to a bud pointing in the direction the following season's growth is required to take. A few good Apples to plant are: Dessert—Lady Sudeley, Worcester Pearmain, Cox's Orange Pippin, Wyken Pippin, Lord Burghley, Duke of Devonshire and King of the Pippins. Cooking—Lord Derby, Warner's King, Ecklinville Seedling, Lane's Prince Albert, Bramley's Seedling, Peasgood's Nonsuch, Old Round Winter Nonsuch and Norfolk Beaufin. Pears—Williams', Beurré d'Amanlis, Doyenné du Comice, Beurré Superfin, Beurré Hardy, Marie Louise, Louise Bonne of Jersey, Nouvelle Fulvie, Marguerite Marillat, Conference, Josephine de Malines, Pitmaston Duchess and Durondeau.

KITCHEN GARDEN.

Take up Tarragon and Mint, place the roots in shallow boxes filled with a light leafy soil and stand them in a slight warmth; also take up Chicory roots and plant several in large-sized pots and stand them in a dark position to bleach the new growth, which is so useful in winter for salads. Mustard and Cress must be sown at intervals to meet the demand. Keep taking up any late Cauliflowers and autumn Broccoli whenever the curds are of suitable size, and bed the roots in the soil in a suitable out-of-the-way place, where, if needed, protection can be easily applied, and thus prolong the season supply.

H. MARKHAM.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

INDOOR FRUIT DEPARTMENT.

VINERIES.—To retain the remnant of a crop unduly long upon the Vines tends to unnecessary exhaustion as well as a loss of much-needed space for flowering and bedding plants, which may possibly be too thickly placed in other houses; moreover, the border may have become dry, and a thorough application of water before the foliage loses its vitality would be beneficial. If a properly constructed Grape-room is non-existent, any dry structure that can be kept at a fairly equable temperature may, without much trouble and cost, be fitted with shelf-like arrangements that will hold ordinary glass bottles at an angle which, when nearly filled with water and the stems inserted, allow the bunches to hang clear.

Early Vinery.—The Vines having been at rest for some time may now be pruned and cleaned, the woodwork and glass of the house also being well washed, and all be got in readiness for starting into growth very shortly. If the roots have the run of an outside border, this should be protected from the elements by having a few inches in thickness of leaves and litter placed thereon. If renovation is decided upon, the surface soil may be carefully removed with a fork until the roots are exposed, replacing this with fresh, well-broken turf with which is mixed bone-meal, lime rubble and wood-ashes, according to the requirements of the case.

Peaches and Nectarines.—The earliest of these will now have shed their leaves, and pruning, cleansing and training in readiness for a renewal of growth affords comfortable work in bad weather. Should insect pests, but more particularly scale, have gained a footing, means should be taken for their eradication. The last-mentioned is very persistent, and the application of insecticides sufficiently strong to destroy it would probably have a bad effect upon the trees. The more prominent are easily removed from the branches by the aid of a piece of soft wood; afterwards a strong solution of Gishurst Compound applied to the stem and main branches with a stiff brush would effect a riddance. Manure, bone-meal or superphosphate of lime are both good and safe as slow-acting nutriments for the Peach family, and either spread over the border at the rate of from 4oz. to 6oz. the square yard and pointed under are preferred to others of greater potency.

HARDY FRUIT DEPARTMENT.

Pruning of Bush Fruits may now be carried out as the foliage falls, Currants and Gooseberries being first in this respect. To commence, clear the centre of the plants of all crossing shoots, cutting these quite close at the base, afterwards making the plants as shapely as possible by reducing growths where too vigorous and thinning others until an even spread of bearing wood is presented all round. Spur-pruning is less practised than formerly; instead, a sufficiency of the current year's shoots are left at full length, most of the remainder being closely severed. Black Currants.—In pruning these a good proportion of the older branches should be cut away to make room for others more young and vigorous.

KITCHEN GARDEN.

Forcing Vegetables.—Where home-grown produce is exclusively relied upon, it is useless to start forcing too early—that is, not until the foliage has died naturally from off the plants.

Rhubarb.—This is a favourite dish at Christmas, to obtain which the roots are best carefully raised and allowed to remain exposed to the weather for a week or more. On being placed in heat, as beneath the stage of a plant-house where a temperature of about 60° is maintained, or some improvised system whereby fermenting manure supplies the necessary warmth, growth speedily follows. JAMES DAY.
(Gardener to Sir Malcolm M'Eacharn.)
Galloway House, Garlieston, Wigtownshire.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Border of perennials (*J. G.*).—You have not stated the width of the border, which is an important matter when selections of plants are required, and without this it would be risky to make a selection. Your better plan would be to give these particulars to some of the hardy plant dealers, telling them the amount of money you would care to expend, and ask them to send you a suitable selection. If you make a selection yourself you cannot err if you include single and double Pyrethrums, Flag Irises, Spanish Irises, Carnations, Gaillardias, Globe Flowers, hybrid Columbines, Campanulas, Alstrœmerias, Larkspurs, Coreopsis, Marguerites and Michaelmas Daisies among other things, and these, with Liliums, Daffodils and the like, would afford you a long season. If the border is of good width, *i.e.*, 8 feet or 12 feet, there will be room for Hollyhocks, Heleniums, Sunflowers, Kniphofias, Day Lilies, and the taller Larkspurs among others.

Growing Nymphæas in tubs (*Water Lily*).—This is a very convenient and attractive way of growing Nymphæas when ponds or streams are not available. Many of the smaller kinds may be grown with success in this manner and will produce flowers freely. In selecting a place for sinking the tubs a piece of ground that slopes slightly should be chosen, so that when in position each tub, starting from the top, would be rather lower than the other. They might then be connected together with pipes, so that when the tub on the highest level is filled it would overflow by means of the pipes into the others below. The tubs should be 18 inches or 2 feet in depth, and if watertight will not require cementing. In the bottom of the tubs put a few broken bricks, then a layer of well-decayed cow-manure, and fill up to within a foot of the top with a mixture of three parts loam and one part sand. There ought to be a depth of 9 inches to 1 foot of water. The Nymphæas may be planted in April, although May is perhaps the best month. Small-growing kinds are N. odorata alba, N. o. minor and N. pygmæa, all with white flowers. Among the pink or rose coloured kinds are N. Laydekeri, N. odorata Exquisita and N. o. rosea. Others with red or crimson flowers are N. Laydekeri fulgens and N. L. lilacea. Yellow-flowered ones are N. odorata sulphurea and N. pygmæa var. helvola.

Pæonies, and other queries (*Pau*).—Herbaceous Pæonies require a great depth of very rich soil and to be planted in autumn, and, given this, will not be likely to fail. While not growing well under trees, they are by no means fastidious as to position. Water in plenty is of importance in dry weather, and the plants will then grow apace. We do not call the variety Sims Reeves to mind, and we think you had better refer to the gardener who sold you the plants. The chief difference between the common Wistaria sinensis and its Japanese relative, W. multijuga, is the great length of the latter's flowering racemes. In colour the two are not widely dissimilar, but in form the Japanese kind is less full and decidedly more tapering, while its pendent, attenuated racemes will frequently extend from 2 feet to 3 feet in length. It is just as hardy as the better-known form, though the plant is by no means plentiful or even at the present time a well-known subject.

Violets, and other questions (*F. B.*).—We can, of course, only surmise from your description that the Violet was the old Russian Czar, unless, indeed, it was the common wild species, which, probably, you would have known. Your Red-hot Poker Plant may certainly be divided if too large for you, but the month of March or April would be a better time than the opening days of winter. Yes; the Fire Thorn prefers a wall to grow upon, and is quite hardy in the majority of gardens. Avoid too rich a soil, and apply gravel or sand to a soil that is heavy and cold. Anemones of the tuberous-rooted set grow quite well in light and warm, well-drained soils in open situations. The Japanese Anemones in your district should succeed admirably as border plants anywhere, except within the reach of tree roots and the shade of trees. These plants are slow to become established in certain localities, but remain good for many years once the plants have taken hold of the soil.

Seedling Gladioli (*W. Harris*).—There must be no enforced ripening off of the seedlings, and the growth should be kept going as long as possible, to the benefit of the bulbs. April sowing was much too late, and January would have been much better. These early sowings afford the young plants the best opportunity for making a full season's growth, and in this way large bulbs are secured in the first year. If you have kept the young plants to the seedling pots, they may, when fully matured, be kept in them for the winter, the soil being quite dry. A far greater headway would have been made by planting in the open. Primula japonica is quite hardy, and the seedlings to have now only "two little leaves" must be the result of very late seed-sowing. You evidently lose much time in sowing everything very late. The Primula seedlings cannot possibly flower in spring, their flowering depending upon the developed growth of a season. By pricking them out in a frame they would have a longer period before them to continue growth before being checked by severe weather.

TREES AND SHRUBS.

Climbers for northern window (*Rockville, Inverness*).—The following Roses and Clematises will be suitable for your purpose; Rose Cheshunt Hybrid (climbing) and Clematis Jackmanii alba, Rose Souvenir de la Malmaison and Clematis Mme. Edouard Andre, Rose Tea Rambler and Clematis Anderson Henryii. If you do not require all the Roses and Clematises to flower together, you might substitute one of the varieties with Clematis montana rubens. This is a delightful free-flowering form of the old C. montana, with reddish flowers which appear in May and June.

Climbers for pergola (*J. P.*).—If some manure and better soil can be added to the ground, which you say is of poor quality, the following climbers will be found suitable for your pergola: Clematis montana, C. montana rubens, C. alpina, C. Viticella, C. Jackmanii superba, C. J. alba, C. J. Mme. Edouard Andre, C. Lord Neville, C. Anderson Henryii, C. Flammula, C. Flammula rubromarginata, C. The Bride; Honeysuckles as follows: Lonicera japonica, L. j. halleana, L. Periclymenum, L. Heckrottii, L. tragophylla, L. sempervirens; Jasminum nudiflorum, J. officinalis; Vines: Vitis Coignetiæ, V. armata Veitchii, V. megalophylla, V. leeoides, V. Thomsonii; Loganberry, Lowberry, Rubus laciniatus, R. phœnicolasius, R. bambusarum; Wistaria chinensis, W. multijuga and the variety alba, Aristolochia Sipho, Celastrus articulatus, Actinidia chinensis, Tecoma radicans, T. grandiflora, Forsythia suspensa, Akebia quinata and A. lobata. If the ground is well worked 1½ feet to 2 feet deep for a space of 5 feet or 6 feet round about where the plants are to grow, and enriched with well-rotted manure placed so that it will not come in direct contact with the roots at the time of planting, all the subjects mentioned will thrive. If any soil of richer quality is available, a few barrow-loads to each plant would do good. In addition to the Loganberry and the hybrid from that called the Lowberry, both Rubus laciniatus and R. phœnicolasius, the latter sometimes called the Japanese Wineberry, bear edible fruit.

FRUIT GARDEN.

Black Hamburgh Grapes in bad condition (*Miss Cox*).—Judging by the appearance of the sample Grapes sent, the foliage, as well as the fruit, of your Vines must be eaten up with red spider. That, combined with the cutting off of the large leaves some time ago and insufficient air, we think, must be responsible for the very deplorable condition your Grapes are in. We are afraid that nothing can be done this season to help to further ripen or improve the quality of your Grapes, but you might try and do so by, in the first place, fumigating the vinery with XL All Fumigator, which you can obtain from any seed merchant advertising with us. This would destroy the spider. You should ventilate freely while the weather is fine in the daytime, opening the lights wide top and bottom, but not necessarily the door. A little air should be left on all night, top and bottom. Of course, in cold weather less air is required, but the house should never be shut up while there are ripe Grapes in it. If you can have a little heat in the pipes day and night it would greatly help the ripening process.

Apples diseased (*Miss F. B.*).—The Apples are attacked by the fungus Fusicladius dendriticum, causing the disease known as Apple scab. All the dead and dying shoots should be carefully pruned out of the trees, and they should be sprayed just after the petals fall with Bordeaux mixture of half the usual strength, and again about three weeks afterwards.

Small brown specks appearing on Grapes about to ripen (*Beatrice Gardner*).—The damp, sunless, cold summers of last year and of this must be held responsible for the injury to your Grapes by a malady which is commonly known among Grape-growers as damping. It is caused by the air of the vinery being too cold and damp for too long a time together. Had you been able to have applied a little warmth to the vinery by means of hot-water pipes during the coldest and dampest days and nights, the damage would not have happened. The remedy lies in the provision of a small boiler with a flow and return 4-inch hot-water pipe fixed round the vinery, to be used under similar conditions should they recur.

Apple leaves diseased (*Bismark*).—The damage to your Apple leaves has been caused by a fungus. Had your trees been in robust health the chances are that the fungus would not have attacked them. Indifferent health always predisposes fruit trees to the attack of insects and fungoid growths. Therefore, the first thing you have to do is to try and bring back to good health your young trees. The way to do this is to lift them out of the ground and replant again, adding a liberal quantity of turfy loam to the roots of each tree and planting firmly. Before replanting prune your tree and burn the prunings, and also take away an inch or 2 inches of the surface soil under the tree, in case there may be any of the spawn of the fungus left. Also, before lifting, spray the tree with Bordeaux mixture. This will kill any fungus there may be on the trees.

KITCHEN GARDEN.

Celeriac for inspection (*H. E. S.*).—The injury to the bulbs of the Celeriac is due to the larvæ of the Carrot fly, which has burrowed into the flesh. Sand or ashes impregnated with paraffin should be scattered along the rows of the plants soon after they are planted to prevent the flies laying their eggs, and the soil should be made as firm as possible around the plants with the same object. As the pupæ are formed in the earth, it is well to bury that which has been round the plants as deeply as possible, and to avoid growing the crop on the same ground without an interval of three or four years.

How to get rid of caterpillars on Winter Greens (*J. C.*).—There is nothing better than soot and quicklime applied in a dry state to the plants, smothering the leaves and stems completely over with it top and bottom. This will fetch them off, when they should be collected and burnt. The rains will wash this off in time, the plants be none the worse and the ground all the better for the dressing of lime and soot.

Potato to name (*J. L.*).—The kidney-shaped white Potato sent bears the closest possible resemblance to Sir John Llewelyn, a very early and exceedingly productive kidney. All the same, we cannot guarantee from such tubers any absolutely certain name, seeing that not only are there several other varieties very similar in appearance, but varieties in the shape and character of these tubers vary very much in diverse soils. As to whether the variety is an early one or not, should our surmise as to its identity be correct, of course it is an early one; but if you have other tubers and will keep them in a cool, airy store fully exposed to the light—that is if you purpose planting them next year—and find shoots push from the eyes by Christmas, rest assured that the variety is an early one, and should be planted on a warm border so early as the end of February in your district.

MISCELLANEOUS.

Horse-manure and saw-dust (*D. Gardner*).—We do not advise you to mix horse-manure with so-called saw-dust, which is, of course, wood-dust. This, when decaying in the soil, is likely to cause injurious fungi to form. It will be far better to use the horse-manure alone. By a "seedy head" in Dahlias we presume you mean one with an open centre. Many old varieties will always produce some such flowers, and we do not know of any treatment that will prevent it except less manure in the soil.

Names of fruit.—*F. G. W.*—Lord Derby.——*P. S. F. T., Lower Swell.*—1, Cornish Gilliflower; 2, King of the Pippins; 3, Lemon Pippin; 4, New Hawthornden; 5, Emperor Alexander; 6, Tower of Glamis.——*A. P. F.*—2, Round Winter Nonsuch; 8, Wellington.——*W. Andrews.*—1, St. Luke; 2, Allington Pippin; 3, Tom Putt.

Names of plants.—*Poyntyfield.*—Tolmiea Menziesii.——*Colonel Fetherstonhaugh.*—Rhus Cotinus.——*J. Goodwin.*—1, Adiantum formosum; 2, send in flower; 3, Erigeron multiradiatus; 4, Juniperus chinensis; 5, Berberis Wallichii; 6, Helxine Solierolii; 7, Thuya plicata; 8, Picea excelsa.——*W. R. P.*—1, Berberis Wallichii; 2, Myrtus communis; 3, Salvia Grahamii; 4, Spiræa species; 5, Acer palmatum; 6, Elæagnus pungens variegatus; 7, Berberis Darwinii; 8, Arundinaria Fortunei; 9, Griselinia littoralis; 10, Euonymus japonicus variegatus; 11, Fuchsia macrostemma; 12, Caryopteris Mastacantha; 13, Cratægus species; 14, Aster Amellus; 15, Phillyrea angustifolia; 16, Jasminum officinale; 17, J. humile.

SOCIETIES.

STIRLING CHRYSANTHEMUM ASSOCIATION.

THE annual show of this association was opened on November 10 in the Albert Hall, Stirling, by Lady Georgina Home Drummond. There was a large attendance, presided over by ex-Provost Thomson. The show was of exceptionally high quality, the entries showing a considerable increase, the total number being in excess of any previous show of the association. The blooms were generally of splendid character and the pot plants of Chrysanthemums very fine. The other horticultural exhibits were also highly creditable to the district.

The silver cup for four plants of Japanese was won by Mr. James Wood, Dunmore Park, Mr. H. Gray, Park Terrace, Stirling, coming second. Mr. Wood also won the first prizes in the plant classes for two pots of Japanese, one pot of Japanese, disbudded, not more than twenty-five blooms, and four pots of singles. For six pots of Japanese, disbudded, Mr. Gray came in first; Mr. Wood, second. For three pots of Japanese, distinct, Mr. Gray led also, Mr. C. M'Isaac coming second. The silver cup for six vases of Japanese, which was presented by Mr. Graeme A. Whitelaw, Strathallan Castle, was well won by Mr. A. Morton, Cullen House, Cullen; Mr. M'Queen, Greenfield, Alloa, was second. For twelve blooms of Japanese, Mr. D. Carmichael, Langgarth, was first with a very fine lot, Mr. J. Wood being a good second. For two vases of white Japanese, Mr. W. Henderson, Larbert House, was first, Mr. A. M'Kenzie being first for yellows. For two vases in six varieties, Mr. A. Morton led. Among winners in other classes were Messrs. C. Shaw, C. Palmer, J. Wood, J. K. Meston and H. Gray. The amateurs showed very creditably, and the whole show must be pronounced of exceptional quality.

SCOTTISH HORTICULTURAL ASSOCIATION.

THE November meeting of this association, held in the Goold Hall, St. Andrew Square, Edinburgh, was one of exceptional interest, and a large number of members attended. The exhibits were especially interesting, and included a number of Begonias raised by Mr. J. G. White, secretary of the Aberlour Orphanage, Banffshire, in pursuance of his endeavours to raise a set of sweet-scented varieties. They were obtained from crossing B. Baumannii with the modern tuberous Begonia, and showed that a considerable step in advance has been made by Mr. White in raising these fragrant flowers. Mr. White was awarded a silver medal for his exhibit and for his work in this direction. A collection of winter-flowering Begonias came from Messrs. John Downie, Edinburgh; Chrysanthemums from Mr. A. Thomson, Mr. W. Williamson and Messrs. Dobbie and Co.; and Cypripediums from Messrs. James Grieve and Sons, votes of thanks being accorded to the exhibitors. The president, Mr. James Whytock, made a feeling reference to the death of Mr. David Thomson, late of Drumlanrig, and a letter of condolence was arranged to be sent to Miss and Mr. D. W. Thomson. Miss M. Burton, New Saughton Hall, Polton, gave a highly interesting and useful paper on "Begonias," in which she spoke of the three main sections into which these popular flowers could be divided, and gave much information regarding them and the culture required by the plants. Thereafter Mr. J. G. White gave an address in which he related his work in raising the sweet-scented Begonias, and considerable interest was taken in the results of his labour, the variety of scents obtained being varied. Miss Burton and Mr. White were cordially thanked for their papers.

KIRKCALDY CHRYSANTHEMUM SOCIETY.

THE annual show of the Kirkcaldy Chrysanthemum Society was held in the Adam Smith Hall, Kirkcaldy, on November 12 and 13. There was a large attendance at the opening ceremony, which was performed by Captain Stocks. The exhibition was of very high quality in every way, it being generally admitted that the blooms as a whole were superior to those of last year. The number of entries also showed an advance upon previous years, and was highly creditable to the growers in the district and elsewhere. Mr. Munro Ferguson's special prize for a group of Chrysanthemums was won by his own gardener,

Mr. D. M'Lean, Raith, with a fine group showing high quality and effective arrangement. Sir Michael B. Nairn's challenge cup, for six vases of Chrysanthemums, was won by Mr. W. Young, Falkland Palace, with Japanese, which were of superb quality and which point to the grower as likely to take a high place in larger shows. Mr. W. Black, Kirkcaldy, was first for the Corporation Gold Medal for a pot of single-flowered Chrysanthemums. Among the other leading winners were: Mr. A. Robb, Dysart House; Mr. J. Brown, Brunton House; Mr. W. Davidson, Southertown; Mr. J. Fleming, Leslie; Mr. J. Thomson, Buckhaven; Mr. D. M. Pryde, jun., Buckhaven; Mr. R. Brown, Kirkcaldy; and Mr. W. Hepburn, Linktown.

BRITISH GARDENERS' ASSOCIATION (LONDON BRANCH).

MR. E. F. HAWES of the Royal Botanic Gardens, Regent's Park, N.W., gave a most interesting lecture before the members of this association on Thursday evening, November 11, at Carr's Restaurant, Strand, the subject being "Should We Have Fuller State Recognition of Horticulture?" In the course of his remarks Mr. Hawes stated: "During the past twenty-five years horticulture has made rapid strides in all directions, until at the present time, or rather in 1901, when the last Census was taken, no fewer than 216,165 persons, male and female, ten years of age and upwards, are classified under the headings of gardeners, and there is no doubt whatever that the numbers have considerably increased since that period. It is owing to the increasing importance of horticulture as a national industry that I am led to deal with this subject at the present time.

"Horticulture is recognised by the State as a branch of agriculture under the direct control of the Board of Agriculture and Fisheries, and consists of a permanent staff composed of president, secretary, assistant-secretaries, small holdings commissioners, assistant-commissioners or inspectors, technical adviser in botany, chief agricultural analyst, chief veterinary officer, assistant-veterinary officer, superintending inspectors, general inspectors and inspectors. It will be readily seen by the foregoing that horticulture has no special recognition or department of its own, although it receives a certain amount of consideration by the Board and some of its officers. This is decidedly not the fault of the officers, but rather of the constitution. Considering the great importance of horticulture as a national industry and its immense value in the economy of Nature, it seems perfectly clear that the time has arrived for a combined national movement in order to secure a fuller recognition of horticulture by the State. We have already existing, as shown previously, small holdings commissioners on an organised system, and if a combined effort is put forth on the part of horticulturists generally, there is no reason whatever why a further Commission of Horticulture, with the appointment of permanent expert horticultural commissioners to the Board of Agriculture, should not be carried out in the immediate future. Such a commission as the above would prove of the greatest advantage if conducted on sound lines, and would lead to the uniting of the whole of the societies and organisations at present working independently of each other into a central Chamber of Horticulture, on which they all should be represented and by which questions affecting horticulture could be collectively discussed and dealt with.

"At the same time there is another important phase of the subject which needs consideration—the desirability of making horticulture a separate section under the Census Returns. At the present time gardeners are included under two headings—those employed in private gardens as domestic outdoor servants, and nurserymen, seedsmen and florists under the head of agriculture. I am perfectly aware that this would cause a distinct change, especially in regard to private gardeners, who are now classed as outdoor domestics with coachmen, grooms and gamekeepers. I do not wish for one moment to say anything detrimental to the intelligence of the latter body of men; but I do think that some consideration should be shown to gardeners, whose training and knowledge are required to successfully cultivate the vast number of plants, flowers and fruits which are now in existence and daily increasing in variety. There are gardeners and garden labourers; these should be distinguished separately for the same reason as labourers in other branches of trade are distinct.

"In conclusion, the London branch of the British Gardeners' Association will, I hope, endorse the opinion that the time has arrived when some definite action should be undertaken in order to secure a fuller recognition of horticulture, to which we all belong, by the State."

A full discussion followed, in which Messrs. Barnes, Raffill, Tidy, Friend, Morland and others took part, and it was decided to refer the question to the executive council for consideration.

DUNFERMLINE HORTICULTURAL SOCIETY'S CHRYSANTHEMUM SHOW.

THIS show was opened on November 12 in St. Margaret's Hall, Dunfermline, and proved of high quality, the blooms being considered much superior to those of last year's show, being, as a rule, large, well finished and of good colour. The number of entries was about 400, this representing little difference from last year, although the show was a fortnight earlier. Plants were also good, and the specimens which won the special prizes were of superior quality. Mr. Neil Maclean's plant of Lady Hanham, with which he won the first prize for plants, was very fine. Mr. J. Wilson received a special prize for a Chrysanthemum plant grown by an amateur, his variety being Mrs. Ritson. A tribute was paid by the judges to that fine Chrysanthemum Mrs. A. T. Miller by the special prizes for the best blooms in the gardeners' and amateurs' classes going to this flower, the prize one in the gardeners' class being exhibited by Mr. J. Waldie, Dollarbeg, and in the amateurs' by Mr. T. Peebles, a Stirling amateur. Space will not admit of detailing the other awards.

AUTUMN SHOW AT WINDSOR.

THE eighteenth annual autumn show was held in the Royal Albert Institute on the 12th inst., when there was a good display of Chrysanthemums and other plants. In the section for cut blooms the principal class was that for six vases, five blooms in each, for which the King's Challenge Cup is offered as first prize. For two years previously this had been won by Mr. T. Stevenson, Woburn Place Gardens, Addlestone, and this year he was the only competitor, thus winning the cup outright. His blooms of Reginald Vallis and Walter Jinks were particularly good. Mr. Stevenson was also the only competitor in the class for eighteen Japanese, distinct, arranged in a given space with the addition of any foliage plants or cut foliage. His flowers here were exceedingly good and very tastefully arranged. For twelve incurved and twelve Japanese varieties, distinct, the challenge cup given by Lady Evelyn Mason and also an additional cash first prize were won by Mr. C. Page, gardener to J. B. Fortescue, Esq., Dropmore, Maidenhead, who staged beautiful flowers of both types. Among the Japanese were splendid examples of Lady Talbot, Mrs. Norman Davis, F. S. Vallis, Mrs. A. T. Miller and Leigh Park Wonder. Extra good incurved were Clara Wells, Buttercup and Godfrey's Eclipse. There were three competitors in this class, Mr. R. Evens, gardener to H. F. Slattery, Esq., being placed second.

In the class for six single varieties, five sprays of each, not disbudded, Mr. C. Page was again first, there being eight entries. His blooms of Metta and Mary Richardson were particularly attractive. Second honours were secured by Mr. W. Cole, gardener to Miss E. B. Foster, Clewer Manor. Mr. Page was also first for large blooms arranged in a basket or vase, Mr. Stevenson being a good second.

For twelve Japanese, distinct, there were six competitors, Mr. Stevenson winning the premier prize in good style, Mr. J. Minty, gardener to Mrs. Moir, Cockle, being second. Mr. Stevenson was also first for six Japanese blooms of any one variety and for six incurved blooms of one variety, the winning blooms being respectively Lady Talbot and Buttercup. In the amateurs' section the chief class was for twelve Japanese, first honours here being won by the Rev. G. S. Cuthbert with a splendid lot of flowers, Mr. C. Hanstin being a good second.

In the section for groups of plants the competition was good, Mr. W. Cole being first for Chrysanthemums arranged with Crotons and other foliage plants. Second prize fell to Mr. E. J. Hill, gardener to A. L. Wigan, Esq. Mr. F. Copp, gardener to E. Iveson, Esq., Ascot, was a good first for a group of decorative Chrysanthemums, not disbudded, this being a very beautiful class indeed; second prize went to Mr. J. Barnes, gardener to Lady Dalton Fitzgerald; Mr. G. West, gardener to F. Ricardo, Esq., Old Windsor, was third. All three groups were composed of excellent plants, the chief difference being in the arrangement. For a group of miscellaneous plants Mr. J. Minty was first and Mr. F. Clark second.

BOURNEMOUTH GARDENERS' ASSOCIATION.

MR TANNER, the borough bacteriologist, gave a very interesting and instructive lecture before a good attendance of the members of the above association on Tuesday, November 16, on "The Life, History and Structure of a Fern." After delivering his lecture Mr. Tanner placed a number of microscopical specimens under three powerful glasses, and as the members inspected them he further described the structure of various species of Ferns. The lecturer created much interest by his very able references to the common Bracken Fern, and also in his description of the male and female organs, fertilisation and the first stages of the germination of the spores and subsequent growth of the seedlings. After Mr. Tanner had replied to some questions, the members, on the motion of the chairman, gave him a very hearty vote of thanks, and this ended a most instructive and enjoyable evening.

EDINBURGH CHRYSANTHEMUM SHOW.

THE great annual Chrysanthemum show of the Scottish Horticultural Association took place in the Waverley Market, Edinburgh, on November 18, 19 and 20 under unfavourable climatic conditions, which to some degree prevented it from being so fine a display as usual. The frost was extremely severe, and the surprise was that the number of exhibits forwarded was so little reduced and that so few showed traces of the inclemency of the weather they experienced on their way to the show. Taking the exhibition as a whole, there was a very high degree of excellence shown in the greater number of the classes, and, whatever reduction there may be in the number of large blooms cultivated in private gardens in Scotland, there is no falling off in the quality of the blooms shown at this great exhibition. These were very fine, and the competition in some classes close indeed. Pot plants were also good, there being some of high excellence in several classes. Florists' decorative work formed one of the attractive features of the show, and the fruit was up to the high standard of previous exhibitions, while vegetables contributed several strong classes.

TRADE EXHIBITS

were not so numerous as we have seen at this show. Among the most prominent were the following:

Messrs. W. Wells and Co., Merstham, showed a large collection of cut blooms, singles being very prominent and showing the advance made in these varieties since the revival of favour they are experiencing set in.

Messrs. Storrie and Storrie, Glencarse, exhibited a large variety of fruit trees in pots, together with dishes of fruits, such as Apples, Pears, &c.

From John Forbes, Limited, Hawick, came Carnations, &c., in much variety and of the newest types.

Messrs. Sutton and Sons, Reading, made a display of their specialities, the Onions they exhibited representing the various types and eliciting much interest.

Messrs. Tilie, Whyte and Co., Edinburgh, exhibited a large variety of vegetables.

From Messrs. William Thomson and Son, Clovenfords, came a fine exhibit of Gros Colman Grapes from Vines upwards of forty years of age.

The British Columbia Government sent a display of fruit to show the capabilities of the province for fruit-growing.

Mr. H. N. Ellison, West Bromwich, made an effective display of Ferns and various flowers; and Messrs. Glass, Edinburgh, exhibited a large variety of floral designs of tasteful design and execution. In the

COMPETITIVE DEPARTMENTS OF THE SHOW,

the class which was the object of the keenest interest was that for the City of Edinburgh Queen Victoria Memorial Prize, for fifteen vases of Japanese, three blooms in a vase, for which a cup and £20 in cash were offered. There was here a splendid competition, although Mr. T. Lunt, Keir, last year's winner, did not show. The first honours fell to Mr. A. Morton for a very fine exhibit containing many splendid blooms. Mr. Morton has lately been coming to the front, but this is the first time he has won this trophy. He had 139½ points out of 180, those coming next being Mr. D. Nicoll, Rossie, with 137½ points; Mr. James Beisant, Castle Huntly, 131½ points; and Mr. W. Iggulden, Frome, with 127½ points.

For the Scottish Challenge Cup, for eight vases in eight varieties, there was a strong competition, Mr. J. R. Finnie, Sunnyhill, Shandon, coming in first with 73 points out of 96 points. Mr. L. M'Lean, Greenfield, Alloa, was second. For six vases, Japanese, in six varieties, Mr. J. L. M'Kellar, Portmarnock, Ireland, was first; and for twenty-four blooms, Japanese, shown on boards, Mr. M'Kellar was again first. In the class confined to growers within the boundaries of Edinburgh and Leith, Mr. A. Stenhouse, Morningside Asylum, was first.

Other leading winners with cut blooms were Messrs. Macskimming, A. Bruce, A. E. Todd, G. Scott, W. G. Pirie and A. Knight. Mr. D. Nicoll won the medal for the best bloom. The best dinner-table decorations were from Mr. James Beats, Binrock. In the pot plant classes Mr. W. Pulman led for six distinct Chrysanthemums and Mr. W. Michie for four, the latter having the best Pompons. Other pot plants were good as a whole, Mr. A. M'Millan, Douglas Castle, Mr. W. P. Bell and Mr. A. Knight being among the leading winners. As already indicated,

FRUIT

was of high quality, and Mr. D. Kidd, Carberry Tower, came in first for the collection of eighteen dishes arranged with flowers or plants; Mr. G. Mackinlay was second. Mr. Kidd was also first for four bunches of Grapes, and other leading winners in the fruit classes were Messrs. J. Beisant, T. Macphail, J. Highgate, J. Shiells, W. G. Pirie, R. G. Sinclair, J. L. M'Kellar and W. Galloway.

The collections of vegetables were of high quality, but here Mr. J. Gibson, Welbeck Abbey, again proved himself invincible, even against such good growers as Mr. R. Stuart, Thirlestane Castle, and Mr. W. Galloway, Gosford. The show was opened by Mr. H. B. Cox, and the excellent arrangements of the committee and Mr. A. D. Richardson, the secretary of the association, deserve commendation.

ABERDEEN CHRYSANTHEMUM SOCIETY.

THE annual two days' show of this society was opened on November 19 in the Music Hall, Aberdeen. The number of entries was slightly above that of last year, while the quality of the exhibits showed no decadence from the high standard of former years. The leading class for cut blooms was that for twelve vases, Japanese, in twelve varieties, three of each, and Mr. J. Jenkins, jun., Woodside, Aberdeen, led with splendid blooms of first-class form, size and colour. He was closely followed by Mr. A. Morton, Cullen House, Banff, the winner of the leading prize at the Edinburgh show. For eighteen Japanese, Mr. A. Morton was first. For twelve Japanese, Mr. A. Oliphant, Montrose, was first. The best twelve incurved came from Mr. S. Jamieson, Burton Hall, Loughborough. Other leading winners with cut blooms were Mr. J. D. Smith, Mr. A. Duncan, Mr. W. Milne and Mr. R. Begg. Christmas Roses, always good at this show, were very fine, Mr. W. Milne coming in first for twenty-four trusses, not disbudded.

Mr. A. Reid, Durris, was first for six varieties of cut flowers, and also for bunches of Orchids. Bouquets and other florists' work brought out some splendid exhibits, and the leading winners in these were Messrs. J. Stewart, Adam and Craigmyle, G. Smith, A. J. Burns and J. T. Milne. Pot plants were generally of good quality, and the leading honours for Chrysanthemums went to Messrs. A. Murray and A. Duncan, the former taking nearly all the first prizes. Messrs. W. Arthur, A. Duncan, R. Begg and A. Reid led in the other plant classes.

Hardy fruit was exceptionally well shown, but the classes for Grapes ought to be rather more numerous at such an important show. Mr. J. Grigor was first for a collection of cooking Apples, and Mr. A. Paterson for a collection of dessert Apples. Other winners with fruit were Messrs. J. A. Grigor, R. A. Grigor and W. B. Cormick.

The severe weather experienced in the district restricted the quantity of vegetables forwarded, but some high-class produce was shown. Messrs. J. and D. Mackenzie were first for the collection.

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

WHAT TO DO WHEN PLANTS ARE FROZEN.

DURING the winter months the amateur in gardening has much to contend with, and not the least of the evils to be feared is frost, especially where an endeavour is being made to keep more or less tender plants through the cold, dull months in a poorly heated greenhouse or frame. Every year, as soon as severe frost occurs, some enthusiast is caught napping, with the result that a whole house or frameful of more or less valuable plants are destroyad.

Fortunately, science has come to our aid and taught us a few things concerning the effects of frost on tender plants, and with these principles fully grasped we are in a position to combat frost on its own ground, so to speak. Science has taught us, and practice has confirmed the theory, that plants which are kept as dry as possible during a spell of frosty weather, without being allowed to suffer from this cause, will withstand successfully far more frost than the same kind of plants whose tissues are gorged with liquid, and science has also taught us that the greatest mischief is caused by rapid thawing.

To thoroughly grasp the above facts it may be as well, before proceeding further, to just consider briefly what really happens when a plant gets frozen. It is now generally known that a plant, like the human body, is made up of tiny cells, each of which, of course, has its own walls. Under ordinary conditions, and when a plant has abundance of moisture at its disposal, these cells are turgid with liquid. Now, when liquid becomes frozen it is one of the laws of Nature that expansion takes place, and in the case of that in the plant cells no exception to this law is made. This expansion, then, results in a rupture of the plant cell walls, which, under ordinary conditions of thawing, causes the plant to collapse.

It has been stated above that plants which are kept as dry as possible during frosty weather do not suffer so much by being frozen as others of the same kind which are well supplied with water, and the reason is that the cells are not nearly so full of liquid, and consequently, when that which is present becomes frozen, there is more room for expansion and the rupture is not so extensive or disastrous.

It has been proved that when a plant is thawed very slowly the plant cells are able to absorb the moisture which has been forced by expansion through the cell walls, and the rupture is to a great extent made good; hence in practice we try to thaw our plants as slowly as possible, so that the smallest amount of harm possible shall accrue.

We now stand on clear ground as to the reason why frost damages our plants, and, consequently, we can take intelligent measures to prevent the mischief. Assuming that the plants have not been watered more often than is absolutely necessary, and that one morning we visit the greenhouse or frames to find that frost has reached them, we know that if they are to be saved thawing must be done very slowly. First of all, we must take care that the heating apparatus, if any is used, does not get into working order again, and if there is any likelihood of a burst of sunshine, shade the structure with thick mats or anything else that can be quickly secured. Then procure an abundant supply of ice-cold water and syringe or otherwise drench the plants with this until frost is gradually removed from the tissues. This will probably mean very cold hands and chattering teeth, but it is either this or losing the plants. For several days subsequently the plants should be kept as cool as possible without allowing frost to again reach them.

With outdoor plants which are not quite hardy it is not, of course, possible to keep them dry at the roots, but this does not matter so much, as they are usually resting and the cells are not likely to be swollen with liquid. Slow thawing is, however, just as essential as with indoor plants, and any protecting material which has been used ought not, on any account, to be removed until frost has slowly departed from the plants.

WATERCRESS AND ITS CULTURE.

Of the many salads available for use in spring none is more welcome or useful than the lowly, pungent Watercress; yet how seldom we find it cultivated in gardens even where facilities for doing so naturally exist. Those who only know this salad by the material bought from the greengrocer have no idea of the crispness and delightful freshness of newly gathered, unbruised heads which have been grown in clean spring water. If for no other reason, the filthy conditions under which a vast amount of Watercress is grown for market should induce all those who have a little stream of spring water available to form beds and grow their own material, and usually any that is to spare finds a ready sale among those who appreciate fresh, cleanly grown heads.

I am fully aware that some people grow Watercress without water, and it is not a very difficult task to do so, but the heads obtained thus are usually strong and tough, and scarcely worth the trouble entailed, slight though it may be, in producing them. Given a running, shallow stream of clean water, however, a supply of first-class material may be had practically for the picking, once the initial cost of preparation and planting has been defrayed. As the present is

a good time to prepare the beds, a few hints as to how the work should be done may be useful to other readers. At the outset I should like to say that in the majority of cases the elaborate stone or brickwork constructions sometimes met with are absolutely unnecessary and frequently prove an eyesore to the owner.

In dealing with the preparation of the beds I cannot do better than describe one that has proved most successful, and, in addition to providing the house with salad nearly the whole year round, yields a good profit on the surplus which is sold.

Originally the site of the beds was a narrow ditch, scarcely more that a foot wide, running alongside the kitchen garden, down which ran a small stream of spring water, which came from a deep drain that emptied a natural spring from a hilly field close by, so that there was no question as to its purity. When it was decided to turn this narrow ditch into Watercress beds, the first task was to widen it, and when this was completed the stream was about 5 feet wide and not more than 2 inches deep. Subsequent events proved that this depth was not sufficient to give the best results, and it was eventually made nearly 6 inches deep, and this gave excellent returns. After the widening and levelling of the bottom, some rough, thick poles were placed across at intervals of 5 feet, each one, working down stream, being placed at a lower level than its predecessor, so that when finished the whole stream was divided into sections roughly 5 feet square. These rough poles were well puddled with stiff clay, so that water could not flow beneath them nor round their ends, and, where necessary, a deep groove or two were cut in their upper surfaces to allow the water to run freely from one section to another. Failing these poles, stout planks stood on edge and fixed with stakes would answer as well. The objects in doing this were to check the swift flow of the water, which at times would have washed the roots away, and also to keep the water in each section at a uniform depth and to keep the sand used from being washed away. Incidentally they made excellent resting-places for a plank, which was used to stand upon when gathering the heads. When it was found necessary to make the water deeper the obstructions were raised.

After the beds had been so far prepared, the work was left for a few days until the water had become clear, and a good layer of sand was then placed in the bottom of each and all was ready for the plants. Planting was done in early spring. A stream not far away contained some wild plants, and these were requisitioned, the deficiency being made up by a supply of more or less mangled heads from the greengrocer. These were simply dropped in the beds about a foot apart and left to look after themselves. In the course of a few weeks the beds were yielding a good supply, and since that time (nine years ago) little attention has been needed beyond keeping weeds down and giving the plants an occasional hard cutting over during the summer to prevent them going to seed. E. M. D.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

December 7.—Royal Horticultural Society's Exhibition of Flowers and Fruit, Vincent Square, Westminster, 1—5 p.m.

December 8.—Perpetual Flowering Carnation Society's Exhibition, Horticultural Hall, Vincent Square, Westminster, 1—5 p.m.

Dates of show fixtures.—As usual, we shall, with the first number of the new year, give a calendar, and we shall be greatly obliged if secretaries of horticultural societies who have not already done so will send us the dates of their shows. They should be sent in as early as possible.

Victoria Medal of Honour.—The president and council of the Royal Horticultural Society have appointed Mr. W. Botting Hemsley, F.R.S.; Mr. A. Mackellar, head-gardener to His Majesty the King, Frogmore; and Mr. J. H. Goodacre, head-gardener to the Earl of Harrington, Elvaston, Derby, to fill the vacancies existing in the roll of Victoria Medallists of Honour.

Peterhead Horticultural Society.—At the annual meeting of this society the directors reported that Mr. A. Clark Martin, who has been secretary and treasurer since the society was established eleven years ago, was unable to offer himself for re-election owing to the increase of his professional duties, and the society agreed to record in the minutes an expression of their appreciation of his services and regret at his resignation. Mr. D. Youngson was appointed his successor.

National Rose Society's annual meeting.—The annual general meeting of the members of the National Rose Society will be held at the Westminster Palace Hotel, Victoria Street, Westminster, on Thursday, December 9, at 2.30 p.m., when some business of a rather important nature will be dealt with. Instead of the annual dinner, which has hitherto been held after this meeting, a conversazione will this year be held at the Westminster Palace Hotel at 4.30 p.m. on the date of the annual meeting. Each member of the society is entitled to one free ticket for this, and can purchase others for friends at 2s. each, application for these to be made to the hon. secretary, Mr. E. Mawley, V.M.H., Rosebank, Berkhamsted, Herts, on or before December 4.

An interesting horticultural exhibition at Reading.—As will be seen by a report in another column, the members of the Reading and District Gardeners' Association celebrated their twenty-first anniversary by holding an almost unique, and certainly very beautiful, exhibition of flowers and vegetables. The novel point about the exhibition was that no prizes were offered, yet the display was an exceedingly good one, doubtless on account of the profits being intended for the Gardeners' Royal Benevolent Institution and the Gardeners' Royal Orphan Fund. This method of assisting these two splendid institutions is a most praiseworthy one and might well be imitated by other gardening societies. Such exhibitions also prove that much high-class gardening is done more for the love of the work than for the winning of prizes.

Sweet Pea trials for 1910.—The committee of the National Sweet Pea Society will hold its annual series of trials at the Times Experimental Station, Ladygrove Farm, near Guildford, in 1910, and will test novelties and grant awards and certificates according to merit. No awards or certificates will be granted to Sweet Peas unless they are sent for trial at Guildford. For these trials the varieties will be accepted only from the raiser or introducer; a charge of 2s. 6d. for each variety will be made. At the request of numerous seedsmen the committee will conduct a further and distinct trial solely for the purpose of testing correctness and purity of stocks of Sweet Peas. A charge of 5s. per variety of stock sent for trial will be made. Sweet Peas for these trials must reach Mr. C. Foster, Ladygrove Farm, near Guildford, not later than January 15, 1910. For the novelty trials not less than fifteen seeds should be sent, and for the purity trials not less than two dozen seeds of each variety or stock. At the same time a list of the varieties, together with the amount due for trial charges, should be sent to the hon. secretary, Mr. C. H. Curtis, Adelaide Road, Brentford, Middlesex. The proceedings of the Floral Committee will be printed in the autumn of 1910, and a copy will be sent to every person or firm sending seeds to either or both of the sets of trials. Novelties will be received under number, although names are much preferred. Any variety meriting an award must, if under number, be named before such award can be granted.

National Sweet Pea Society's annual meeting.—The annual general meeting of the members of the above society is to be held in the North Room, Hotel Windsor, Victoria Street, Westminster, on Friday, December 10, at 3 p.m. A proposed new rule is: "That members of committee who make fewer than two attendances during the year shall not be eligible for re-election the following year." A Sweet Pea conference will also be held at the Hotel Windsor on the above date, commencing at 7 p.m., when the following papers will be read: "The Imperfect Seeding of Waved Sweet Peas," by Mr. William Cuthbertson, J.P.; and "Sweet Pea Names and Naming," by Mr. W. J. Unwin. For the convenience of members, dinner will be provided at the Hotel Windsor at 5.30 p.m. on the above date. Tickets 5s. each (exclusive of wine). Application for tickets must be made to the hon. secretary, Mr. C. H. Curtis, Adelaide Road, Brentford, Middlesex, not later than December 9.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Climbing plants and buildings. The relation of plants to buildings has in the broad sense received a considerable amount of attention from those qualified to speak on both sides; but the subject has various ramifications, and the article "On Plants for the Walls of Houses Possessing Architectural Merit," which was reprinted from *Country Life* in THE GARDEN for November 13 (page 552), treats of one of those ramifications which is of much interest both to architects, antiquaries and gardeners, as well as to lovers of plants generally. In considering architectural merit, we have as varied and extensive a field before us as we have in the selection of the plants themselves, or perhaps more so. Even if we take the "walls of houses" to mean domestic architecture alone, the varied styles and frequent embellishments should be a matter of thought how best to preserve them, not only from destruction from the overgrowth of plants such as Ivy, but also to prevent them from being hidden from view. But the complete question goes far beyond that of domestic architecture, whether ancient or modern. Thus, ancient buildings of great architectural merit, especially churches, are often seen covered by a dense growth of Ivy, completely hiding and often ruining the stonework beneath, and frequently destroying, it may be, some beautiful mouldings or other decorations. It is in this respect that the Ivy has been for too long the dominant plant, and has been allowed to take possession of such a large number of our architectural treasures, whether sacred or secular. The matted root-fibres, which so often cover walls like so many inches of felt, are a fruitful source of internal damp and destruction generally, so that it is quite time some real attention should be given to this question of suitable plants as climbers on buildings. It seems to me, however, that the writer of the article referred to, while denouncing the Ivy and Virginian Creeper, is inclined to go to another extreme in recommending such hard woody-stemmed plants as the well-known and beautiful plant Cratægus Pyracantha Lelandii, Magnolia grandiflora, Myrtus communis, Wistaria and others. For absolutely bare walls such plants are eminently suited; but where anything of the nature of architectural ornament exists, it would be most difficult to train these plants. Everything really depends on the style of architecture of the building to be treated, and the plants must be considered as subservient to their surroundings. Thus, on the walls or keep of a Norman castle, where no decoration exists, Ivy would seem to be in its proper place so long as it is kept within its proper bounds; but on an elaborate cathedral or other church of the Norman, Early English, Decorative or Perpendicular periods, Ivy, Virginian Creeper or any of the woody-stemmed

plants should not be admitted. The writer of the article is fully cognisant of the necessity of keeping such unruly plants within bounds, and his advice is to train and prune, advice that should be taken more often than it is; but in the matter of ornate buildings, particularly those of the three later styles of Gothic, it would undoubtedly be found the better plan to admit only such plants of a more slender growth as will add to the general appearance without covering the slightest detail of architectural decoration. A few years ago this matter was taken up very intelligently and thoroughly by Mr. W. D. Caröe, the eminent architect, and formed the subject of a paper read before one of the learned societies in London—if I remember rightly, the Society of British Architects. In that paper Mr. Caröe strongly recommended that climbing plants on buildings should be selected from those possessing slender stems, small foliage and closely clinging properties, and such as could easily be removed when trespassing over any fine tracery, mouldings or carved work. These properties, he said, were best to be found in Vitis inconstans, better known as Ampelopsis Veitchii.—JOHN R. JACKSON, *Claremont, Lympstone, Devon.*

Planting bulbs in the grass.—I read with interest "D. B. C.'s" article in THE GARDEN on this fascinating subject, and as I have made a study of this method of gardening, I think your readers may like to have the result of my experiments with various kinds of bulbous and other spring-flowering plants. The soil here is a good loam to a depth of 18 inches to 2 feet, mostly over clay. Taking, first of all, the Snowdrop, I have found this most difficult to manage and most uncertain. I have moved it at all times of the year. I have carefully lifted, dried, and as carefully planted many thousands in the most promising positions in the turf, and they have mostly failed. I have lifted odd clumps in full bloom and dumped them down anywhere, so to speak, and they have flourished. Though Snowdrops luxuriate in the woods and shrubberies here, when one comes to move them it is quite another matter. So much for my experience with the Snowdrop, and I confess I do not understand the moving of it. I have been unfortunate with the Grape Hyacinth; it dies out in the turf, and I fancy it wants a dry hedge bank or some similar place. Scillas and Chionodoxas have done only fairly well; they seed freely, and there are masses of young seedlings every year around the old roots in the grass, but they do not seem to do much in the way of flowering. The Spring Snowflake and the Star of Bethlehem have disappointed me, but I have no doubt all these plants would flourish in suitable soil in shrubberies or hedge banks, though they refuse to adapt themselves to naturalisation in turf here. The Snake's-head Fritillary is one of the successes. It has been growing in the grass here as long as anyone can remember, and increases every year; the white variety is particularly charming. We gather the seed before the grass is cut—about the end of July or beginning of August—and sow it broadcast after the grass is cleared. A large percentage germinate, and the seedlings flower about the fourth season from sowing. The Winter Aconite should do well wherever the Snowdrop grows. It delights in the sheltered corner of a shrubbery or woodland where the soil is warm and open, and likes a covering of leaves in winter. I find it does not do well where the grass is at all strong, and prefers to have the ground to itself. The best way to increase it is by gathering and sowing the seed in likely places, or, of course, planting the roots. Of the Narcissus or Daffodil I cannot speak too highly; it is the ideal subject for planting in the grass, and the soil and position must indeed be a bad one in which Daffodils refuse to grow. There are a few which I have tried and found wanting, such as the triandrus and Bulbocodium varieties, the double cernuus and the Polyanthus Narcissi; but in a warmer and lighter soil I have no doubt even these would flourish in the grass. I have planted scores of varieties of Narcissi and Daffodils in the turf here, and with the few exceptions mentioned they have all done exceedingly well; perhaps the most effective for massing is the double yellow Telamonius plenus. Other spring-flowering plants that I have found most useful for naturalising in turf are some of the Anemones. A. apennina grouped with the double yellow Daffodil gives a most charming effect, the little bright blue flowers forming a very pretty contrast to the masses of yellow Daffodils; it requires the sun to open its flowers, and should, therefore, be planted in an open place facing south. The single and double Wood Anemones do exceedingly well in the grass, and the latter associates itself very well with the Snake's-head Fritillary. The Crocus is most useful where there are no rabbits; the purples and whites are the best, as they seed freely. They should be planted quite shallow in a sunny position. Bluebells are excellent subjects for woodland planting, and the white variety, Scilla nutans alba, is especially charming and does well in the grass. Tulips generally have only a short life in the turf, but the native species, Tulipa sylvestris, has established itself here and

MR. PETER RUDOLPH BARR.

is very interesting. Another charming subject is the Dog's-tooth Violet; this takes a few years to get established, but when the clumps do get a good hold they seem to go on improving indefinitely; the flowers are very lovely, and the quaint, spotted leaves make the plant interesting. The double Meadow Saxifrage is a very useful little plant for naturalising; it will even grow and flower under Beech trees, and its perfectly formed little white, Rose-shaped flowers, tinted with green, are most charming. I am afraid I cannot agree with all of "D. B. C.'s" advice as to planting. Take illustrations No. 1 and No. 2, showing about ten or twelve Daffodils planted with a turf to be placed over them. There is a danger if the turf is not broken up before it is replaced over the bulbs that such strong growers as Daffodils will lift it bodily as they push up their young growth. By far the best way of planting is to use a turf punch like the one illustrated in THE GARDEN, Vol. LXIV., page 244; this makes a hole large enough for two or three Daffodils of average size or half-a-dozen smaller bulbs, such as Snowdrops, and as they are planted round the side of the hole they never lift the turf; besides this, in suitable ground it is a far quicker and easier way of planting than with a spade.—W. A. WATTS, *North Wales.*

WORKERS AMONG THE FLOWERS.

PETER RUDOLPH BARR.

ONE of the younger generation of horticulturists is Peter Rudolph Barr, eldest son of the late Peter Barr, whose death we recorded with unfeigned regret in THE GARDEN a few weeks ago. For many years Mr. Barr has, with his two brothers, controlled the business of an interesting firm, and with that enthusiasm one delights to see in everything connected with the pursuit of horticulture, whether for pleasure or for business. To the late Peter Barr much of the present popularity of the Daffodil is due, and the great work of the father has been continued by the sons, as one is well aware from the many beautiful hybrids that have been raised in their Surbiton nurseries during recent years, the "Peter Barr" form in particular.

The subject of the present note is greatly interested in cross-fertilisation, and doubtless many flower gems are in process of development at Surbiton which will enrich the gardens of the future. As Mr. Barr once said to the writer, "I feel there is so much still to be done in the direction of cross-fertilising." He is right, and if the calls of business were not so urgent this would be the hobby indulged in. The writer is reminded of a note some time ago in the Journal of the Royal Horticultural Society in this connexion. It referred to the possibilities that exist, through cross-fertilisation, of producing beautiful races of flowers. "There is a wonderful opening nowadays for anyone who really loves plants. Let them only take up one or, at most, two genera, and work, aye! work at them; turn them and twist them this way and that way; hybridise, cross, select in all directions, backwards and forwards, and cease not till something good, something well worth having, rewards their labour. And for choice take hardy plants in hand, because the number of people you can benefit with them is so much greater than with glasshouse plants. What shall you take? Well, really, everyone must choose for himself; but that you may not say we can think of nothing, we suggest—Why not seek to raise up a whole race of brilliantly-coloured and perfectly hardy Anemones by crossing the common wood Anemone with Anemone coronaria, in all its glorious colours, and also with Anemone stellata? True, A. coronaria and A. stellata are both of them hardy in a sense and in some places, but nothing like A. nemorosa, the common Windflower of our woods in spring. Think how generations yet unborn would bless you if you could present them with a strain of nemorosa with all the colours of coronaria and stellata, still preserving the lovely form and free-flowering habit of nemorosa. And this is but one example; there is an abundance of others as easy—or it may be as difficult, for, till it is tried, no one can tell whether such a cross would be easy or difficult; but such difficulties should not discourage us—only inspire us to overcome them." These words will, we are sure, be re-echoed by Mr. Barr. A visit to the famous nurseries at Surbiton at almost any season of the year is of the greatest interest to the horticulturist and those who seek for new things, especially in the time of the Daffodil and Tulip. The species and varieties of Tulip and Daffodil are represented in a way that presents itself in few other nurseries of the world; but, more than this, hardy plants generally are grown in rich variety and with a skill born of long experience.

Mr. Barr shows his interest in horticulture in general by taking an active part in such noble institutions as those of the Gardeners' Royal Benevolent and the Gardeners' Orphan Fund. We hope this earnest horticulturist has many years of useful work before him and that he will continue to inspire in others, as he has done in the past, a great and enduring love for flowers.

TREES AND SHRUBS.

RHODODENDRON HODGSONII.

UNFORTUNATELY, many of the very beautiful species of Rhododendron which are found in the Sikkim Himalaya cannot be grown successfully out of doors, except in the most favoured parts of the country, uch as Dorsetshire, Devonshire, Cornwall, the oast of Wales, the West Coast of Scotland nd Ireland, for when well grown they form nagnificent objects, some by reason of their owers, others by their foliage, and others by a ombination of the two. In these places, plants at all, but ordinary bush subjects that require a little protection, and for many reasons they are better plants for the purpose than those of climbing or trailing habit, for it often occurs that neat-growing plants are wanted for walls, while if a climber is too carefully trained its beauty is lost. It is, therefore, proposed to devote this article strictly to shrubs whose branches require a support to grow over, and at some future time an article on useful wall shrubs may be allowed.

The first item to consider with regard to climbing shrubs is space, for if the best possible results are to be obtained, the plants must have ample space for free development. Supports such as those previously alluded to are very well in their way, but for a really strong-growing

A SMALL PLANT OF RHODODENDRON HODGSONII.

owever, they succeed admirably, and are said to ival those growing in their natural habitats for general excellence.

A small plant of one of these species, R. Hodgsonii, is shown in the accompanying illustraion. It, however, fails to do justice to the pecies, for in this instance a well-grown bush nay be anything from 12 feet to 20 feet high with a good spread. The leaves may be anything between 9 inches and 12 inches in length and 3 inches to 4 inches in width, while they are deep green above and covered with a dense whitish felt beneath. The flowers are borne about April in rather loose trusses; they are somewhat tubular in shape and deep lilac or purplish in colour. Other large-leaved kinds met with growing under similar conditions to this are R. grande and R. Falconeri, while the ever-popular R. griffithianum succeeds in the same gardens. Further north or in colder places it is quite worth while to give a cold house over to the culture of these not quite hardy Rhododendrons. K.

CLIMBING SHRUBS FOR PLANTING NOW.

THE question frequently arises as to what are suitable climbing shrubs for planting against trellises, the posts of pergolas, arbours, summer-houses and other positions as distinct from ordinary wall plants. As a rule, the plants most frequently grown against walls are not climbing subject there is nothing like an old tree or large bush, over which it can ramble at will and its branches hang in long festoons in a free and natural manner. An old Holly or Evergreen Oak, or even a gnarled old common Oak, makes an excellent support. The plants ought to be placed well away from the trunk on the outskirts of the tree, so that plenty of water can be obtained and tree roots will not interfere with them too much. A large hole must be made, and if the soil is poor good material should be provided.

The same remarks as regards soil are applicable to pillar-grown plants also. In the case of these, however, pruning will come in for consideration, for plants grown against pergolas and trellises have to be kept within bounds. This pruning ought to be done methodically—that is, go over the plants once or twice each year as the occasion demands and reduce the superfluous growths; do not let the plants go for several years and then carve three-parts of them away. The period for pruning will, of course, be decided by flowering. Foliage subjects may be pruned in winter and again in June, and also those things which flower on the current year's wood require winter pruning; but those shrubs which blossom on wood matured the previous year must have the pruning deferred until after the flowers have faded. In the following selection of plants Roses have been purposely left out, for the varieties suitable for the purpose are well known.

The Vines claim our attention as being peculiarly adapted for the purpose with which we are dealing. As pillar plants they clothe their support with luxuriant foliage, which frequently colours brilliantly in autumn, while for growing freely over trees they have few equals. A great many sorts are known, and the following are selected as being among the best: Vitis Coignetiæ, V. Thunbergii, V. vinifera purpurea, V. megalophylla (a new Chinese species with enormous leaves), V. armata var. Veitchii, V. Thomsoni, V. leeoides and V. Labrusca. The Wistarias are excellent for the purpose, especially if they can be trained over the top of a pergola so that the inflorescences can hang over the walk. W. chinensis, W. multijuga and W. multijuga alba are all useful. Wistaria multijuga is remarkable for its long inflorescences, which are frequently between 2½ feet and 3 feet in length. The Akebias are rampant-growing climbers which bear purplish flowers in spring. There are two species, A. quinata and A. lobata, both of which are worth growing. The former has five-parted and the latter three-parted leaves. Actinidia chinensis is a very ornamental climber introduced from China by Messrs. Veitch a few years ago. It grows vigorously and is worth planting in a position where it can have lots of room for development. Other Actinidias are arguta, polygama and Kolomikta; they are not, however, very ornamental plants. So far as foliage is concerned, a great deal may be said in favour of Aristolochia Sipho and A. tomentosa, both of which have large, handsome leaves and look very well when covering a pillar. The flowers are very curious in shape, but small and dull in colour. The rounded leaves of Menispermum canadense make it a desirable subject, while Periploca græca is a plant of extremely fast growth suitable for covering an ugly object quickly. Araujia sericofera, or Physianthus albens as it is frequently called, is a useful white-flowered climber of service for the warmer counties, while the same may be said of Solanum jasminoides. Berberidopsis corallina may also be grown in warm localities.

The Clematises are a host in themselves, and almost every one is pretty. The common Old Man's Beard (Clematis Vitalba) is one of the most delightful plants imaginable when growing freely, and it is not difficult to call to mind visions of fine old examples tumbling about over high fences and trees in riotous confusion. All the garden forms of Jackmanii, lanuginosa, patens and florida may be grown, while such species as Viticella, montana and its lovely variety rubens, alpina, campaniflora, Flammula, grata and orientalis are all worthy of consideration. Such Honeysuckles as Lonicera Periclymenum, L. sempervirens, L. japonica and its varieties aureo-reticulata, flexuosa and halleana, L. Sullivantii, L. Heckrottii and the new L. tragophylla are all beautiful climbing shrubs, while Jasminum nudiflorum and J. officinalis are ever popular.

A climbing shrub which is less widely known than its usefulness warrants is Celastrus articulatus. It is a native of China and Japan, and is conspicuous from October until Christmas by reason of its orange-coloured fruits, which burst open and disclose the reddish seeds within. Celastrus is closely allied to Euonymus, and the fruits are very similar in appearance. Rubuses contribute their number to our list, and we have such useful fruiting plants as Rubus laciniatus, the Loganberry, the new Lowberry and Rubus phœnicolasius (the Japanese Wineberry). Several new species have been lately introduced, of which a distinct one suitable for our purpose is R. bambusarum. Tecoma radicans is a beautiful flowering plant where it does well, but it cannot always be depended on, and the same may be said of T. grandiflora. To conclude our list we will mention the sub-shrubby Polygonum baldschuanicum, which in the course of a few years has become one of the most popular climbers in our gardens. W. D.

THE ROSE GARDEN.

NOTES ON NEWER ROSES.—XI.

HYBRID TEAS.

(Continued from page 579.)

MRS. DAVID JARDINE (Alex. Dickson and Sons, 1908).—A glorious Rose under glass; fine colour, shape and highly fragrant. I wish I could say the same for it outside. I saw some fine flowers of it as maidens, but generally outside it has not come up to expectations. Of course, it is not difficult to find reasons—the season, for example; but it is useless to deny that it has been disappointing. It is thought a great deal of in America, judging from the references to it in the American Press.

Mrs. Harold Brocklebank (Alex. Dickson and Sons, 1907).—This is a lovely Rose and one I can strongly recommend. It is often good enough for exhibition, but it is as a garden or bedding Rose that I would recommend it. It has all the points that go to make a good Rose. Flowers of good shape, colour, very fragrant, and plenty of them. I have been very pleased with it. Colour, pale cream, deepening in the centre to almost buff, sometimes showing salmon tints in the young flowers. The whole flower appeals very much to ladies, one of whom, looking at it in my garden, remarked, "That's the kind of Rose I like; such a soft flower."

Mrs. Longworth (Prince, 1908).—This is a sport from Caroline Testout and rather a curious one. It is not exactly striped, although so described. The flowers are pale flesh, almost white, in colour, splashed and marked with pink. It is unique in its way, and must not be left out of that bed of Caroline Testout and her descendants that I mentioned in a former article; but I do not recommend it to the ordinary grower with a strictly limited space at his disposal.

Mrs. Stewart Clark (Hugh Dickson, 1907).—Another Rose that has improved on acquaintance. When it was awarded the gold medal a good many found fault with the colour; but I am inclined to think that it is quite possible to have a good magenta. It is, I am sure, quite wrong to say, as so many do, that all magentas are bad. But who said magenta? Mrs. Stewart Clark is a bright cerise pink and a very fine-shaped flower that has a particularly sweet scent. It is a very vigorous grower, and is strongly recommended to the exhibitor.

Rhea Reid (E. G. Hill, 1908).—Not so good, at any rate out of doors, as Richmond. Colour possibly brighter than either Liberty or Richmond, but the flowers do not come so perfect and it has not proved so good a grower. I do not think it will be wanted.

William Shean (Alex. Dickson and Sons, 1906).—The largest Rose in cultivation (though there are some bigger ones coming), this is a grand exhibition Rose worthy to take its place among the Mildred Grants, Bessie Browns, Dean Holes, Mrs. Edward Mawleys—in a word, the *élite* of the exhibition Roses. It is a very fine shape; colour variable, all shades of pink; and is indispensable to all exhibitors and by no means difficult to grow. It is one of the best Hybrid Teas for exhibition; some would put it on top and say *the* best Hybrid Tea. While not going quite so far as that, I think it is easily in the first half-dozen.

Purley. HERBERT E. MOLYNEUX.

THE KITCHEN GARDEN

THE VALUE OF CELERY AS A VEGETABLE.

WE do not, I fear, make as much use of Celery as a vegetable as it deserves, and probably one of the reasons is that the plant is looked upon by amateurs as being rather difficult to grow, requiring a lot of manure, much attention and considerable space. Celery in a cooked state is a delicious vegetable, to my taste far preferable to Seakale, and it may be had in season for quite six months or even longer if desired. Apart from its distinctness from other vegetables, Celery is considered a valuable food for certain afflictions, such as rheumatism; but this point I must leave to those with a greater knowledge as regards its medicinal properties. I can, however, sately add that many persons can eat Celery boiled or otherwise cooked who cannot digest other vegetables of a more solid nature; indeed, Celery is an ideal invalid's food, and it can be cooked in different forms and is soon prepared for use.

I have found no great difficulty in having good Celery for cooking well into May, as at the end of March or early in April the plants begin a second growth; but if lifted with a ball of earth and roots and laid in under a north wall and well watered the heads keep sound some weeks longer, and are at such a season more valuable. As regards sowing and planting, the cost may be much lessened, as there is no need whatever to sow in heat. I have in the South sown late in April on a warm border in rich soil, and covered the surface with mats or spare sashes. If sown thinly the plants require no transplanting, but can be lifted from their growing quarters to the trenches. Treated thus they are sturdy and grow away splendidly. In the North or late districts sowings made in a cold frame give the same results. In our large market gardens a lot of Celery for late use is grown in wide breadths, and does well, as in dry seasons there is less watering with wider breadths. For cooking purposes it answers admirably, as the plants do not require so much earthing up and take up less space. G. WYTHES.

THE FLOWER GARDEN.

NATURALISING CROCUSES IN GRASS.

THIS system of growing the charming spring-flowering Crocuses has frequently been advocated in THE GARDEN, hence there is no necessity to go into details concerning the actual work of planting now. There are, however, one or two points to which attention is not usually drawn, but which are of considerable importance, and these apply equally to those grown in beds or borders or in grass.

The first point is the necessity for planting in a sunny position. That the plants will grow and bloom well in shade I am perfectly aware, but the flowers need sunshine to induce them to open and so display the beauty of the interior of the segments and also the stigmas. Grown in shade the flowers are simple globes of gold, violet or white, as the case may be; but in sunshine a perfect carpet of colour is obtained.

Another point to consider, and a very important one it is, is the depth to plant the corms. Crocuses ought never to be planted more than 2 inches beneath the surface, and if they are, many of them will fail to bloom. Many a seedsman has been wrongly blamed on account of the corms not flowering, when the trouble was really due to deep planting. As regards irregular planting in grass, this point is now fairly well understood, and the accompanying illustration gives a good idea of Crocuses so planted. H.

CROCUSES NATURALISED IN GRASS IN A SUNNY POSITION.

SWEET PEA CHAT.

CARE OF SEEDLINGS.—The simple fact that the seeds are sown in pots in cold frames or in the open ground in the autumn does not absolve the grower from giving any further thought to his Sweet Peas until the end of the following February or the beginning of March, when it can be seen that the plants are in actual progress. Nothing of the sort; indeed, the man who works on these lines is not the one who will startle the world in the exhibition arena at the next season's

shows. The man who achieves this feat is the one who tends assiduously to the wants of his cherished seedlings; and that they do make demands which must be met none can dispute.

Seeds sown in 6-inch pots during October will now be sturdy little plants, and it is imperative that the soil in the pots shall be maintained in a pleasantly moist condition. Far be it from me to suggest that water should be given every day; that way lies failure, but dryness to the point of dust will result in the shrivelling of the fibres and a consequent check to the plants, and this is a thing that must be avoided at all costs by those who would rise to the top of the tree. On the other hand, it is absolutely essential that no attempt should be made to hurry the plant in the slightest degree, since that also will lead to failure and disappointment. The primary object must be steady and continuous advance from the time that the seedlings show through the surface until the plants are at the zenith of their beauty in the succeeding summer. To this end water is given only when it is necessary to prevent the soil from becoming perfectly dry.

In the event of hard frosts, the thing to guard against is not the frost touching the plants—it is most improbable that they will suffer from this—but to prevent the soil in the pots becoming frozen and cracking them, since this will, of course, involve immediate repotting, which is by no means to be desired, for the simple reason that it is practically impossible to carry it out without giving a more or less severe check to the young plants. Another point that must always be kept in the mind of the cultivator is the partiality of slugs for the sweet tips of the growths. If this pest is permitted to devour the plants unchecked, then one may give up all hope of having a superb display in the coming season. The judicious use of lime at frequent intervals is the most reliable preventive in the ordinary way, but it is commonly necessary to have recourse to hunting or trapping to ensure satisfactory results. As far as birds are concerned, it is invariably wise to have a light framework of fine-meshed wire-netting made of exactly the same size as the light, and put this on whenever the latter is off. By this simple means the birds are circumvented and the young plants receive the full advantage of the fresh air which is essential to their satisfactory progress. The grower must remember that in half-an-hour the sparrows, working industriously, will top scores of plants, and he must not forget to have the protective wire always in position, or trouble will assuredly follow.

Seedlings out of doors have not had the most cheerful of times during the present autumn. Rains have been incessant and generally cold, and thousands of seeds have rotted in the ground, especially those of the mauve and lavender colours and the varieties having white-skinned seeds. There are, however, many excellent rows that will demand a little attention in order to encourage satisfactory advancement. It is the general and excellent rule to sow in trenches rather lower than the normal level of the soil, and it will now be sound practice to draw in the soil to fill up the depression and, in the majority of instances, to carry it an inch or 2 inches up the stems of the tender plants. It sounds a simple thing to do, and it is not quite obvious to the inexperienced grower what particular advantage can accrue upon it, but it not only affords decided protection from cold, cutting winds, but also, and probably more important, it throws the wet from the stems, whereas the fall towards the rows naturally encourages it to them. If severe frost came when the stems were damp, the chances are that serious injury would result; but having them comparatively dry will mean almost perfect safety.

SPENCER.

BRACHYGLOTTIS REPANDA IN NEW ZEALAND.

IN the volume of the Journal of the Royal Horticultural Society for the year 1908 a report is published of a specimen plant exhibited at one of the society's shows bearing two panicles, which appears to have been of much interest by reason of its being the first time B. repanda is known to have bloomed in England. When visiting the Royal Gardens at Kew nearly thirty years ago, I observed some specimens of this handsome New Zealand species growing in large pots in the Tropical House. Presuming that they continued to flourish, it seems almost incredible to me that they have not bloomed years ago. The temperature was unquestionably too warm and dry for this cool and moisture-loving plant, which attains to perfection in the more sheltered valleys and slopes in the New Zealand forest. The highest-grown and best-developed specimens (about 20 feet in height) I have observed occur in areas of bush or native forest inland of Kawhia Harbour, on the banks of the Waitara River, and in the National Forest Reserve circling the base of Mount Egmont in Taranaki. Uniformly grown specimens of B. repanda (the Wharangi-tawhito of the Maori) about seven or eight years old and about 8 feet in height and breadth are the most floriferous, and are very beautiful when in full bloom during the months of September and October. The accompanying photograph illustrates a splendid floriferous specimen 8 feet in height and diameter growing in a sheltered situation in front of trees of Pinus insignis in Pukekura Park, New Plymouth. Last summer was an exceptionally floriferous one with many species of plants and trees comprising the beautiful forest flora of New Zealand.

W. W. SMITH, F.R.H.S.

New Plymouth, New Zealand.

WHARANGI-TAWHITO BLOOM (BRACHYGLOTTIS REPANDA) IN PUKEKURA PARK, NEW ZEALAND.

ANOTHER QUICKLY MADE GARDEN.

I WAS much interested in the "Garden Quickly Made" illustrated in THE GARDEN dated November 20. I, too, have made a garden out of a pasture. Cows were feeding on the rough grass when I came into possession. I enclose two small photographs of the garden in the third summer. The home-made Rose pergola was a mass of bloom. I may add, for the sake of beginners, that I was very ignorant of the art of gardening—did not know a Gaillardia from a Pyrethrum! The beginning of knowledge was taking in THE GARDEN. The "Gardening for Beginners" was carefully studied, and my ignorant questions were always courteously answered by the Editor. Then I increased my knowledge by the study of its advertisements. Next came the catalogues of the advertisers, and finally the courteous, and even kindly, advice of the great nurserymen to whom I applied. To encourage beginners in this delightful work I may add that I have only unskilled labour.

J. V. MILNE.

Broadgates, near Haverhill.

COLOURED PLATE.

PLATE 1388.

THE CHAPMAN FREESIAS.

FREESIA HISTORY.

THE home of the Freesia is South Africa. It is one of the many "Cape bulbs" that enrich our gardens. Up to a very few years ago its history was simply the record of the dates of the introduction of some half-a-dozen species or "forms." The first to come was F. refracta. This must have been in the early part of last century, as there is an illustration of it (plate 135) in the *Botanical Register*. I have looked through a good many gardening books and periodicals of the thirties, forties and fifties, and can find no reference to it. From this I imagine it must have been quite neglected for many years. The next species to be introduced was F. Leichtlinii. It was found, quite by chance, by Max Leichtlin among some neglected pots in the Botanic Garden at Padua. He obtained possession of the treasure and introduced it into European gardens. It was shown by the late Dr. A. Wallace of Colchester at the Royal Botanic Society on April 28, 1875, when it received an award of merit, and later on in the year it duly appeared in his bulb list. Three years later—that is, in 1878—the same Dr. Wallace showed F. refracta alba, for which he was awarded a

SOME OF THE NEWER FREESIAS.

Hudson & Kearns, Ltd., Printers, London, S.E.

FLOWERS BORDERED WITH TURF IN MR. J. V. MILNE'S GARDEN.

first-class certificate. I am uncertain if he was the actual introducer or not, but he was certainly one of the very first to handle it. In 1882 Messrs. Sutton and Sons of Reading introduced an improved form under the name of F. Leichtlinii major.

It may be of interest to compare the prices of that year with those of to-day. F. refracta alba was catalogued by Messrs. Barr and Sons at 10s. 6d. per dozen and F. Leichtlinii at 3s. 6d. Then, after the lapse of nearly twenty years, a Mr. Armstrong sent in 1901 to Mr. C. G. van Tubergen of Haarlem a few bulbs of a new pink species. These flowered in 1902 and were named F. Armstrongii. They are the progenitors of the lovely shades of lilac, mauve and pink which we have occasionally seen during the last two or three years at some of the spring shows of the Royal Horticultural Society at Vincent Square. About the same time another new species appeared, viz., F. aurea, which received an award of merit at the Temple Show in 1902. This variety has dingy yellow flowers and is particularly interesting in connexion with the subject of this article, inasmuch as it is the pollen parent of the Chapman Freesias.

Since the appearance of these two last species, the Freesia has been taken in hand with a view to its improvement in colour and size. The workers who are already in the field include Mr. C. G. van Tubergen of Haarlem; Dr. Attilio Ragionieri of Florence; Messrs. Sutton and Sons of Reading, who had some pink Freesia seed sent them by a correspondent in South Africa, which they grew on until, in 1907, they had a sufficient stock to offer to their customers; and, last but by no means least, Mr. F. Herbert Chapman of Rye. The result of their work is to be seen in the bulb catalogues of this present autumn. In addition to refracta, refracta alba and Leichtlinii major, we find Sutton's Pink Freesia (Sutton), Chapmanii (Herbert Chapman), alba citrina (Herbert Chapman), Tubergenii (Tubergen), Armstrongii (Armstrong), Amethyst (Tubergen), Dainty Maid and Rose Queen (shown by Messrs. Barr and Sons on February 23 of this year).

THE WORK OF HERBERT CHAPMAN.

Mr. F. Herbert Chapman of Rye began to work on Freesias in 1904. He had grown F. aurea for two or three years when a happy inspiration seized him, and he thought he would cross refracta with aurea, as there seemed great possibilities in the colour of the new-comer. With the idea of producing a vigorous, sweet-scented, yellow refracta he made his first cross, using the white, yellow-blotched refracta as the seed parent. The result was a number of plants with flowers of varying shades of yellow. He selected a few of the best of the seedlings and, using them as pollen parents, crossed them with refracta alba. Among the progeny of this second double cross was the famous variety F. Chapmanii. Although it is not the ideal flower at which Mr. Chapman is aiming, he deserves the highest praise for its introduction. It is on the small side, and it might be sweeter scented; nevertheless, it is a very fine addition to the family. The centre flower of the coloured plate is the true variety. It will at once be seen what an immense stride has been taken towards a deep yellow refracta, and that the unanimous award of merit of the Royal Horticultural Society on March 5, 1907, was richly deserved. With the exception of the flowers on the right of the picture, which represent the typical refracta, and which are only introduced for comparison, the others are seedlings of merit which he has selected as worthy of a name. The one in the centre on the immediate right of Chapmanii is Amber, a most delicate flower of unique form and colouring, being a uniform amber with no blotch or shading. It is, I believe, the raiser's favourite of all in the plate. The left-hand bottom flower is Lemondrop. It merits distinction on account of its beautiful form and broad perianth segments. The bottom flower, which is a sort of bicolor or half-and-half, is one that instantly attracts the eye when it is seen growing with other varieties. The plate indicates how far Mr. Chapman has advanced in his work with regard to the yellow type of flower. It is safe to say that these flowers, beautiful as they are, will, in all probability, be superseded within a comparatively few years. He is still at work. Need I say more?

At present Mr. Chapman has not exhibited any pink or mauve seedlings of his own raising, but he has now turned his attention to these as well as to the yellows, and it is only a question of a year or two before the horticultural world will see some of the results.

THE FUTURE.

The Freesia is a flower with an undoubted "future." The plate in this number of THE GARDEN tells us this much; but if any corroboration is needed I would refer readers to a suggestive plate that was published in *Die Gartenwelt* of April 24 of this year. Bright pinks and mauves are there pictured as well as deep yellows. They are the result of crossing the true pure white refracta alba with pollen of Armstrongii and were "made in Holland," if such a term is allowed in connexion with these flowers.

I often think of the future of floriculture now there are so few new worlds left to conquer. The amelioration of our plants and flowers must almost entirely depend on human agency. There are wonderful examples of what has resulted from this in the case of the Daffodil, the Sweet Pea and the common red field Poppy. Why should it not be the same with the Freesia? They, too, will progress, and if Nature's hints are taken by observant workers, it is fairly safe to say that the change in this family will be no less striking than it has been in any of those mentioned above. Progress, with beauty and utility, must ever be the aim of those who undertake this important work. JOSEPH JACOB.

AN AMATEUR'S ROSE PERGOLA THE THIRD SUMMER AFTER CONSTRUCTION.

GARDENING FOR BEGINNERS.

TREATMENT OF CHRYSANTHEMUMS AFTER FLOWERING.

GARDEN WORK WEEK BY WEEK.

GREENHOUSE AND FRAMES.—Whenever possible, all cuttings in frames should be thoroughly inspected and any dead and decaying leaves promptly removed, otherwise disease will quickly be installed and hosts of the cuttings destroyed. In the case of rather thick, soft cuttings it frequently happens that a brown or black patch of disease may manifest itself near the base of the cutting, and providing the latter is a choice one and the disease is only skin-deep, there is a chance of saving it. Carefully pare away the diseased portion with a clean, sharp knife and then dust some finely powdered charcoal over the wound, removing the pot or box containing the cutting to a warmer and drier position for a week or two if possible. In the case of cold frames containing cuttings of bedding Calceolarias, Pentstemons, old Chrysanthemum stools, plants of Carnations, Pansies and other hardy subjects, free ventilation must be afforded on all fine days, as this will do much to dispel damp, which is an enemy of no mean order during the dull days. Keep all growing plants in the greenhouse as clean and as near the glass as possible, and on no account must crowding be allowed.

Fruit Garden.—In many localities there are always a number of Apple trees which are affected by canker, a fungus that causes rough wounds in the branches and frequently eats right round the shoot, thus killing that portion beyond the point attacked. In the case of old trees badly affected, it is of little use adopting remedial measures, and the best thing to do is to grub up the tree; but with younger specimens the evil may, with care, be eradicated. In the case of shoots which have been killed, these must, of course, be cut right away below the point attacked; but where the disease is not so far advanced, the affected portion must be carefully pared away with a sharp knife right down to the live tissue, and the wound then carefully painted over with Stockholm or ordinary coal-tar. If the tree has not been growing freely in the past, make up the following mixture of manures, and apply in January or February as a top-dressing at the rate of 4oz. to the square yard as far as the branches extend: Superphosphate, 12lb.; nitrate of potash, 10lb.; sulphate of lime, 4lb.; nitrate of soda, 3lb.; and sulphate of iron, 1lb.

Flower Garden.—Any alterations in this department that need doing should be put in hand at once, as the sooner the work is completed the better. The rock garden, when the weather is not frosty, should be carefully gone over and any weeds or decaying material removed. Also, it may be possible that frost has loosened some of the more shallow-rooting plants, and these will need to be made firm again. Christmas Roses will now, or shortly, be pushing up their flower-buds, and to obtain the blossoms in a clean and pure condition the plants ought to be covered with a rough frame, or even large bell-glasses or cloches will do, the idea being to ward off excessive rains and impurities which are always present in dull weather. Delphiniums and Phloxes, where not already done, should be covered with a mixture of soot and coal-ashes, otherwise slugs will get at the crowns and do much irreparable damage.

Vegetable Garden.—Take advantage of a fine, dry day to go over the winter Onion bed and remove any weeds that may be present. If the soil is dry enough much good will be done by running a Dutch hoe between the rows, taking care, of course, not to disturb the roots. Cabbages that were planted out last autumn must be inspected frequently, or slugs are likely to do much damage. If these pests abound, dust round the plants occasionally with soot, or, better still, Kilogrub or Apterite. Lettuces, Endive and other plants in cold frames must have ventilation freely on all fine days, otherwise stagnant moisture is likely to do much damage. Lift some of the strongest Chicory roots and plant them thickly in ordinary soil in a deep box, cover this to keep the plants quite dark, and stand in a warm place in the greenhouse or even in a warm cellar. Treated thus the plants will soon produce an abundance of blanched leaves, which will be most useful for salads at this season. A sowing of Mustard and Cress may now be made where a warm glass house or frame is at disposal. Fill some shallow boxes with finely sifted sandy soil and sow the seed thickly on the surface; do not cover with soil. The Cress should be sown a week in advance of the Mustard at this season, as it grows more slowly. H.

1.—OLD CHRYSANTHEMUM STOOLS, SHOWING METHOD OF CUTTING DOWN PLANTS AFTER FLOWERING. PLANTS THAT ARE SHY IN DEVELOPING CUTTINGS SHOULD HAVE A GOOD LENGTH OF THE OLD STEM RETAINED, WHILE THOSE OF FREE GROWTH SHOULD BE CUT BACK TO WITHIN 1 INCH OR 2 INCHES OF THEIR BASE.

WHAT TO DO WITH CHRYSANTHEMUMS AFTER FLOWERING.

THERE are many beginners in gardening who fully appreciate the real worth of Chrysanthemums in the dull season of the late autumn, but who know little or nothing respecting the cultivation of what is generally known as the "Autumn Queen."

Not seldom a novice comes into the possession of a plant or two when they are in full bloom, or else when the flowering season has come to an end. Then is born a desire to perpetuate plants of the variety that has given so much pleasure, and it is here that the real difficulty of the beginner arises.

To leave the old stems on the plants when the flowers are past or useless is a mistake, as they are hindering the development of new basal shoots. It should be the aim of the grower to assist the plants to evolve short, sturdy young growths, and this can only be done by cutting down the plants after they have gone out of flower and placing them in a light, airy position, either in a cool glass structure or in the window of a spare room in a warm, sunny aspect, or in a window where gas is not burnt in the room. A shelf near the glass in a cool greenhouse is an ideal situation for Chrysanthemum stools, as the old plants are called after they have been cut down in the late autumn or early winter.

Chrysanthemums differ much in their character, however. Some plants develop basal shoots in abundance, and others are extremely shy in

2.—A GOOD CHRYSANTHEMUM CUTTING ON THE LEFT. ON THE RIGHT A BAD CUTTING WITH A FLOWER-BUD IN ITS APEX IS SHOWN.

making new shoots, and these are not infrequently some of the best sorts. So scarce are the cuttings of these shy varieties, and so difficult to encourage into growth when ordinary methods of culture are observed, that special means are taken to procure cuttings from the old stems of the plants in order to increase the grower's chances of success. It is usual to retain a good length of the old stem of the plant of these "shy" varieties, as growths will in due course develop all the way up the stem, and the best and most promising of these are detached and used for making into cuttings. Stem cuttings, as this type of cutting is termed by growers, are not desired, but as these are the only ones that are procurable on many plants, they must be selected.

To show what should be done with plants after they have gone out of flower, two plants that have been treated quite differently are shown in Fig. 1. That on the left is a plant known to be somewhat indisposed to make basal growths; for this reason a good length of the old stem has been retained, and on this it can be seen new shoots are already developing. Growths that are free from a bud at their apices should be secured, if possible; but if they are all bad in this respect the buds should be pinched out. On the right of the illustration the reader will observe an old stool that has been cut well down to the base, as the growths from the base are strong and numerous and of a kind that are likely to make good cuttings. The plants have been shaken out of their flowering pots the better to illustrate the subject. Where a large

3.—A SERIES OF GOOD CUTTINGS PROPERLY PREPARED AND READY FOR INSERTION. THAT ON THE EXTREME LEFT IS THE GOOD CUTTING SHOWN IN FIG. 2.

number of plants are grown and space in the greenhouse, &c., has to be economised, it is a good plan to treat the old stools in this fashion, taking care, however, to tie the label denoting the name of the variety securely to that portion of the old stem retained. Some growers reduce the ball of soil of these old plants and embed them in boxes or in beds of soil made up on the greenhouse bench. In this way space is economised and good healthy cuttings produced.

Our next concern is to deal with the cuttings as they are ready. In Fig. 2 will be seen a good and a bad cutting. That on the left of the picture shows a shoot of free growth without a bud at its apex, and of a most promising character. This has been detached from the base of the old stool at a short distance removed from the old stem; seldom are these cuttings unsatisfactory. On the right of the photograph is shown a somewhat slender shoot with a bud at its apex; such growths seldom make satisfactory cuttings, and in all cuttings of this kind the buds must be pinched out before propagation.

Fig. 3 represents a series of cuttings properly prepared and ready for insertion. That on the extreme left of the illustration is the same good cutting as was shown in Fig. 2, and the others are included to show the difference in the character of good types of Chrysanthemum cuttings. To make a cutting, the lower leaves are trimmed off close to the stem with a sharp knife and the stem cut through with a clean cut just below a joint. A joint is that portion of the stem where the leaf-stalk adheres to it. The length of a cutting should be anything between $2\frac{1}{2}$ inches and 3 inches, or rather more.

The insertion of the cuttings is our next concern. The composition of the soil is an all-important item. A suitable compost may be obtained by using loam and decayed leaf-soil in equal parts and passing these through a sieve with a half-inch mesh, mixing thoroughly. Add to the foregoing a one-eighth part of coarse silver sand, and this will make the mixture porous and suitable for the purpose; thoroughly mix the ingredients, however, before using. The cuttings may be rooted singly in "thumb" pots, placing one cutting in the centre of each pot, or a number of cuttings may be inserted around the edge of a larger pot, and a few placed in the centre also.

After crocking and filling the pots with soil, proceed to insert the cuttings. Use a small, blunt-pointed dibber, and make a hole of sufficient depth to just embed the cutting to the second joint. See that the cutting rests on the sand in the bottom of the hole, and then press the soil firmly to its base and also round it.

In Fig. 4 a cutting inserted in a "thumb" pot is shown on the left, and on the right the section of another pot cut through in such a way that the method of crocking, &c., may be clearly seen. To complete the operation, water in the cuttings lightly with clear water from a fine-rosed can, and after leaving for a time to drain, place them in the greenhouse or in any rough framework, on the cool greenhouse bench, or some such contrivance in the window where they can be attended to from time to time. Strive to maintain a temperature of from 40° to 45°. Do not keep the cuttings in an absolutely air-tight condition, or they may damp off. D. B. C.

BULBS IN BOWLS FOR DECORATION.

[*In Reply to "A Flower Lover."*]

THE bulbs of Hyacinths, Narcissi, Tulips and Irises may be grown quite well in bowls in prepared moss-fibre obtainable from Mr. R. Sydenham, Tenby Street, Birmingham, no stone being required for the purpose. Formerly, however, the Chinese Joss Lily, which is a form of Narcissus Tazetta, was grown in water in bowls, the bulbs being kept in position with stones. The moss-fibre is a much more useful and convenient article. Having purchased the bulbs and planted them in the ordinary way, leaving the point of the bulbs just visible at the surface, the fibre may be moistened if necessary, and the entire batch placed in a cellar or similar place where darkness prevails, together with, if possible, cool, moist conditions. If these latter are not present they should be created, as the good growth of the bulbs require it. About a month after planting, when rooting is well in progress, a good watering should be given, particularly to Hyacinths and Narcissi, the others named requiring less, though none of them should at any time lack root moisture.

All such as Hyacinths, Narcissi and Lily of the Valley revel in abundant supplies of water, and the roots of these things will quickly descend and coil around the base of the bowl where most moisture abounds. It is during the early stages of growth—say, the first five or six weeks—that the greater care is needed, and during that time, if the bulbs are packed away in a cellar, outhouse, large packing-case or frame where darkness and uniformly moist—not wet—conditions prevail, the requisite attention will be practically *nil*. When top growth, *i.e.*, leaves and flower-spikes, begins to appear, the plants must be gradually brought out into the light, placing them, if possible, in a frame or greenhouse where occasional damping may be afforded and where the atmospheric conditions are not dry or arid.

THE TOWN GARDEN.

WORK IN THE GARDEN.—In December the work done in the open garden should be of such a nature that it will be beneficial to the health of the worker as well as for the improvement of the garden. There are thousands of persons in towns and their suburbs who take up gardening as a hobby, a recreation, and as a means of beautifying the immediate surroundings of their dwelling-houses. At every season of the year there is special work to be done, and, in winter-time especially, care must be taken in dealing with that work. The enthusiastic amateur forgets self in many instances, and cares more for his favourites in the garden. I can quite understand it all; but I would utter a note of warning against rashness in various ways—for example, standing about in thin-soled boots on a sodden lawn or a wet, clammy soil when engaged in light work; nailing or tying up climbing plants against draughty walls and in passages on a very cold day; remaining out when the coat is nearly wet through. Select a calm, sunny morning for doing the nailing up and pruning of plants; put on thick-soled boots when dealing with the border work, and when the weather is very cold do some digging or similar work that will warm and benefit the system. I am quite sure that amateur cultivators can easily arrange the work so that all will be done in the most pleasant circumstances and not in the worst. The greenhouses, conservatories, frames, glass porches and windows all claim attention; there is work to be done in them which may be carried out in the very worst weather.

WORMS AND LAWNS.—During the summer-time we are rarely troubled with unsightly worm-casts on the lawns, but throughout the autumn, the milder part of winter and in spring we are much annoyed at the unsightly little heaps. At the present time the worms are working very near the surface and are more numerous in some soils than in others. I will here give two recipes for the destruction of worms wholesale. The first is as follows: Dissolve 1oz. of corrosive sublimate (bichloride of mercury) in thirty or thirty-six gallons of water and carefully water the lawn with the liquid through a fine-rosed watering-can. In a very short time the worms will come to the surface and must be swept up, as they are poisoned, and if fowls eat them they will suffer too. The second is as follows: Place a heaped peck of quicklime in a vessel containing thirty-six gallons of water, stir well several times during the day, then allow the sediment to settle at the bottom, and the following day use the clear liquid, pouring it on the lawn through a rosed watering-can. The water must be put on in sufficient quantity to thoroughly saturate the soil to a depth of about 6 inches. The worms will quickly come to the surface and die, and then they should be swept away. Of course, it is scarcely possible to eradicate every worm, and in time others will commence throwing up their little mounds of soil, but not to any appreciable extent during the remainder of this winter.

FALLEN LEAVES.—It is really wonderful how the leaves from a single tree will collect in odd corners and among the lower branches of the shrubs. From paths and lawns it is an easy matter to brush the leaves, but from the shrubs hand-picking is the only effective way. They must be so removed, else, when dry, odd ones get detached and blown on to the lawns and flower-beds, thus creating an untidy appearance throughout the winter and spring months at a time when special efforts should be made to secure a neat appearance. AVON.

4.—METHODS OF INSERTING CUTTINGS. ON THE RIGHT IS A SECTION OF POT IN WHICH THE METHOD OF CROCKING AND THE INSERTION OF THE CUTTINGS IS SHOWN. ON THE LEFT IS SEEN AN INDIVIDUAL CUTTING IN A "THUMB" POT.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUITS UNDER GLASS.

EARLY VINES.—Vines intended to produce ripe Grapes in May should now be started by keeping the house closed, and a night temperature of 50° to 55° and a rise of 10° by day only allowed. Let the hot-water pipes be only slightly warmed at the commencement, and increase the heat when the sap of the Vines is in motion. Syringe the rods twice daily with tepid water, and damp the paths and beds when required with water at the same temperature as the house. If the roof of the house is moderately flat, the rods may be placed in their proper positions; but if the roof is high and the Vines are young, tie them in a horizontal position till the buds have pushed fresh growths. If the borders are outside, a good bed of sweet fermenting material, such as leaves and manure well mixed, should be placed over the roots. The best varieties for forcing I have found are Black Hamburgh, Madresfield Court, Foster's Seedling and Buckland Sweetwater; all thrive equally well in the same temperature and with the same treatment.

Peaches.—For supplying early fruits, the earliest house (assuming the trees have been thoroughly cleansed and put in order) may now be closed. If mild nights are experienced, the heat need not be turned on for a week or ten days, when a slight warmth in the pipes may be applied. At first the night temperature should range from 45° to 50°, and as soon as they commence to flower 55° by night should be given and 60° by day during bright weather. I have always found the Peach to set fruit freely in a night temperature of 55°. Syringe twice daily in bright weather and less when foggy, being content with ample moisture arising from damp paths and trellises. If any young trees are yet to be planted, they should be attended to without delay. Good varieties will be found in Hale's Early, Dymond, Violette Hâtive, Bellegarde, Stirling Castle, Crimson Galande, Noblesse, Barrington, Walburton Admirable, the Nectarine Peach and Princess of Wales. Nectarines: Lord Napier, Pine Apple, Humboldt and Stanwick Elruge.

PLANT HOUSES.

The Stove.—Most stove plants will do with as little heat at this season as at any period, but the temperature must be kept sufficiently warm to keep the plants healthy; keeping the foliage of the plants clean will require every attention. To reduce the use of the sponge, I much prefer a slight syringing of the foliage with a mixture of paraffin and soft soap, followed by a syringing with clean warm water.

Tulips, Narcissi, Lily of the Valley, Hyacinths and many of the hardy shrubs may now be started in a gentle heat, and will force more readily than at an earlier period. Do not overwater, and keep the temperature moist. All plants should be brought forward gradually and in batches to meet the demand. This will allow the flowers to develop more fully. Keep all bedding plants slightly on the dry side at this season, but do not let them suffer from overdryness. Plants in pots stood over the hot-water pipes when the heat is turned on are somewhat misleading and are very apt to get too dry. Those in charge of the watering should at intervals examine the roots by turning one out of the pot, and if found very dry supply water twice or three times till the whole of the roots and soil is thoroughly soaked. Mere driblets should not be given.

H. MARKHAM.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

FLOWER GARDEN.

HERBACEOUS BORDERS.—Any division or transplanting of the various subjects occupying these not yet completed should be carried out without delay. Where a fresh site can be requisitioned, and this having been well prepared by manuring and trenching, the work is greatly simplified. Some species increase in size so rapidly that it becomes necessary to curtail extension about every three years. If divided and replanted, only the outer portion should be used, the central and generally most barren part being discarded. The grouping system of planting, whereby the varieties of a given species are kept together rather than being mixed one with another, is much in favour, and if the scheme of arrangement is well defined beforehand, the ultimate effect is very pleasing. If possible, carry out the planting when the soil works cleanly, so that it may be made quite firm about the roots; and after the surface is properly finished off a dressing of leaf-mould over all, or at least around the plants, will greatly protect the roots from frost.

Exhibition Flowers.—The great and apparently increasing herbaceous classes at shows have engendered enquiries as to the best species to cultivate for this purpose, and as it is obvious that many well suited for border decoration are not so good when cut for vases or for travelling a long distance from where grown, the following list of species, each of which comprises several varieties, as any up-to-date plant catalogue will show, may be relied on to produce flowers in abundance for several weeks in late summer and autumn: Achillea, Alstrœmeria, Anemone, Campanula, Chelone, Cimicifuga, Helenium, Lathyrus, Montbretia, Gentiana, Gypsophila, Sidalcea, Statice, Helianthus, Rudbeckia, Francoa, Lobelia cardinalis, Crinums and Eucomis. The last-named four are not hardy in very cold districts, but in favoured positions generally pass through winters of average severity unharmed.

PLEASURE GROUNDS.

Evergreen Trees and Shrubs.—The planting or transplanting of these being now completed, attention should be given to the deciduous species. In doing this it is prudent to consider the probable size and spread of branches these will ultimately attain, and select positions and give sufficient space between them for full development. This arranged, the intermediate distance may be occupied by the smaller-growing species, which can be removed with comparative ease at any time should the giant form of an Oak, Beech or Cedar unduly overshadow them.

Planting.—To use entirely fresh soil for a great number of trees is a large undertaking, and is in most cases quite unnecessary. Spaces 4 feet or 5 feet in diameter being marked, the soil may be thrown out, in the operation placing that of good quality apart from the inferior until a depth of at least 2 feet is reached. Return the former to the excavation, and make up with fresh material in which to plant the trees. All standard trees or others apt to be swayed by wind should be securely staked as soon as planted.

PITS AND FRAMES.

Violets should be frequently examined for decaying leaves, and have the soil stirred between the plants at the same time. Protection must now be given in the event of frost; but otherwise give plenty of fresh air day and night, taking care, however, that during heavy rains the plants do not receive much moisture.

Bulbs.—As these become rooted, remove them from the plunge-bed to a sheltered position in a subdued light until the natural greenness of the foliage is assumed.

JAMES DAY.
(Gardener to Sir Malcolm M'Eacharn.)
Galloway House, Garlieston, Wigtownshire.

NEW PLANTS.

LÆLIO-CATTLEYA NELTHORPE BEAUCLERK.—This is one of the most beautiful members of this bigeneric race that we have ever seen, its parentage being given as L.-C. gottonana × Cattleya Enid magnifica. The flowers are large and of good shape, the sepals being lanceolate with acute reflexed apices, the colour being rosy pink slightly diffused with gold. The broad petals are a combination of the same colours, only in them the suffused gold is more pronounced, there being a decided deep rose blotch at the apex of each, this extending down the centre vein. The outside of the labellum is rosy carmine, edged and veined with suffused gold, the interior being very rich carmine margined pale pink, with rich gold extending into the throat, the whole being beautifully fringed. Shown by Messrs. Charlesworth and Co., Hayward's Heath. First-class certificate.

Lælio-Cattleya Barbarossa Westonbirt variety.—This is a magnificent variety and fully worthy of the high award that was granted. The sepals and petals are bright rose pink in colour and both of the same shade, the large labellum being the richest possible carmine, with a deep golden yellow blotch at the entrance to the throat. Shown by Lieutenant-Colonel Holford, C.I.E., C.V.O., Westonbirt, Tetbury, Gloucester. First-class certificate.

Cirrhopetalum longissimum.—A very beautiful and striking member of this curious family, the large inflorescence taking a pendulous position. At the end of the slender stalk the flowers are clustered together, these in form resembling somewhat the stocking caps worn by children, the pointed portion being extended into a thread. The colour is dull cream veined with pink, the small sepal being veined dull crimson. Shown by Sir Trevor Lawrence, Bart., K.C.V.O., Burford, Dorking. First-class certificate.

Cypripedium Boltonii.—Practically a pure white and very opaque Cypripedium of great distinctiveness and beauty. There is just a suggestion of very pale green at the base of the segments, but it is a handsome and pure flower, though the size is rather small. Shown by W. Bolton, Esq., Wilderspool, Warrington. First-class certificate.

Cattleya Dirce superba.—A beautiful, nearly self-coloured Orchid, the flowers of which are of medium size. The sepals and petals are both rosy carmine in colour, the interior of the labellum being deep carmine, this organ being very daintily frilled. In the throat a slight pale yellow venation is present. Shown by Lieutenant-Colonel Holford, C.I.E., C.V.O. Award of merit.

Lælio-Cattleya King Manoel.—A pleasing flower of particularly rich colouring and medium size. The sepals and petals are nearly the same size and shape, the colour being rich brownish orange. The small, reflexing labellum is rich crimson at its base and apex, a large, rich yellow blotch being placed across the centre. Shown by F. A. Wellesley, J.P., Westfield, Woking. Award of merit.

Zygo-Colax Charlesworthii.—This is a very curious bigeneric hybrid that attracted much attention. The flowers are rather small, both petals and sepals being acutely ovate in form, the pale green ground colour being heavily mottled with brownish crimson. The medium-sized labellum, which is set almost at right angles to the other segments, is rich violet in colour, with a little pure white blotching at the margin. Shown by Messrs. Charlesworth and Co. Award of merit.

Pelargonium His Majesty.—A really superb novelty of crimson-scarlet colour with large and conspicuous white eye. The individual flowers are of remarkable size, the trusses bold and handsome and produced with great freedom. Shown by Mr. W. H. Page, Tangley Park Nursery, Hampton. Award of merit.

Chrysanthemum Miss Lilian Bullivant.—A very charming and well-formed single variety of the Mary Anderson type and of creamy yellow colour. The undisbudded sprays as shown were very beautiful. Shown by Mrs. Bullivant, Beckenham. Award of merit.

Chrysanthemum J. B. Lowe.—We regard this as the most brilliantly coloured single we have yet seen. The colour is crimson, shaded scarlet; flower-heads of large size; florets pointed and recurving at the points. All the sprays shown were particularly well flowered. A very fine colour for artificial light and most brilliant in sunlight.

Chrysanthemum Mensa.—A lovely large white single-flowered variety of great purity and beauty of form. The flower-heads are some 4 inches across and quite circular. Superb for exhibition work or decoration. This pair came from H. J. Jones, Limited, Lewisham, and each received an award of merit.

Chrysanthemum Mrs. W. Buckingham.—A graceful and beautiful single-flowered variety of blush pink colour that cannot fail to please. The flower-heads are large and well formed. Shown by Mr. L. R. Russell, Richmond. Award of merit.

Nephrolepis splendens.—A novel, distinct and graceful plant of considerable beauty and merit. Shown by Messrs. H. B. May and Sons, Upper Edmonton. Award of merit.

All the foregoing were shown before the Royal Horticultural Society on the 23rd ult., when the awards were made.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR OF THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Treatment of Lilies (*West Sussex*).—Unfortunately, you do not say what kind of Lily you refer to, but if it is the white Madonna Lily, this prefers an open and sunny spot, and, provided it is not under the drip of trees, is not particularly fastidious as to position or soil. Perhaps you would prefer to repeat this portion of your letter with fuller particulars. Both the Anemones and Ranunculus prefer an open spot in light, well-drained loam, the opposite position of cold, retentive clay not suiting them at all. It is also important that the tubers of these plants be lifted each year and given a long rest prior to replanting. The Ranunculus in some districts is much affected by one of the leaf-miners, which early disfigures the leaves and prevents the due performance of their functions. The soil, of course, may be altogether too sandy, and in this way opposed to good growth. Usually, however, all else being equal, the two groups do quite well under similar treatment.

Preserving early flowering Chrysanthemums (*G. Walton*).—Lift the stools without further delay, and if many sucker shoots are apparent, detach these and lay them in deeply at the foot of a south wall or in a frame. The old stools may also be laid in or planted in much the same way, and the twain in spring should produce ample stock for ordinary purposes. Should the presence of slugs be feared, dust the stools around occasionally with fresh soot. Where only a limited number are required, the sucker-like shoots make very good plants if grown on freely. You should not start propagating too early, as frequently such plants become hard and hide-bound and are rarely satisfactory afterwards.

Dividing Aubrietias (*G. Walton*).—You may certainly divide the plants at any time now, though it would not be prudent to leave the work too long. The long, straggling shoots are useless, and should be discarded. Before lifting cut the plant back with scissors or shears, and divide the central portion into compact tufts. Only fresh young shoots of an inch or more long are of use as cuttings, and these should be inserted in August, the old plants having been specially cut back after the summer flowering, and so made to produce cuttings of the right sort.

Removing bulbs from garden (*H. P. M.*). The only thing to be done—seeing that in March or April next the plants will be in full growth—is to lift at once anything you require for removal at the time stated and replant in boxes or pots. To do this in the last days of November, when the majority of such plants as you name will have made much root-growth, will of a surety have a very weakening effect upon the plants besides entailing much labour, and we doubt very much whether some of them are worth the trouble. The German Irises, Alstrœmeria and Schizostylis are the least likely to suffer, while the Hyacinthus may be lifted and practically put to rest. For the remainder, the work of lifting and replanting should be done at once, as the longer such work is delayed the worse will it be for the subjects. We are assuming that the bulbs are permanently planted, as in this case a more active root-growth will exist than were the plants only recently put out. The pale yellow Lily like a Martagon may possibly be L. pyrenaicum flavum, though it is not like the Martagon in growth. It is about 2 feet high and one of the earliest to flower.

ROSE GARDEN.

Roses for a new Rose garden (*Small House*).—We regret we cannot give a design for your new Rose garden, but would refer you to our back numbers, in which you would find several plans that would help you. We have much pleasure in giving you the benefit of our experience in the making of the new beds. You do not say what kind of soil you have, but, generally speaking, Roses prefer a clayey loam. This may be difficult for you to obtain; but if your soil will grow good vegetables, then it should grow good Roses. If the beds are not too large it is best to throw out all the soil to a depth of about 3 feet. Make two lots of this, keeping the lower half soil by itself. Fork up the bottom and then proceed to return the lower half of the soil, mixing with it basic slag at the rate of about 8oz. to a square yard of surface, and also farmyard manure. A bed of about 6 feet in diameter would require about four barrowfuls of manure, and this should not be brought nearer the surface than about 15 inches. As the roots extend they will find it out. Into the upper half of soil some half-inch bones should be admixed pretty liberally. It is a very safe and also a very durable fertiliser. If the beds are elongated, then you can divide them into sections for the purposes of trenching, but be careful not to bring up the lower soil. It is enough to break it up and mix the manure with it. The work should be done as quickly as possible. We have pleasure in giving a few names arranged approximately to colour. Those marked * are specially good, and those marked † would make good standards and also bushes: White and blush—*Augustine Guinoisseau, Clara Watson, †Frau Karl Druschki, *G. Nabonnand, *La Tosca, *Mme. A. Mari, Peace, Pharisaer, *Prince de Bulgarie and †Viscountess Folkestone. Pinks—*Betty, †Caroline Testout, Dean Hole, Earl of Warwick, *Gustave Grunerwald, Konigin Carola, †La France, *Lady Ashtown, †Mme. Abel Chatenay, *Mme. Leon Pain and †Mrs. John Laing. Rose colour—Camoens, Countess Cairns, *Lady Battersea, Mrs. E. G. Hill, *Mme. J. Grolez, Mme. Lambard and *Marie Croibier. Yellow, cream and orange—Gustave Regis, *Joseph Hill, *Lady Roberts, Mme. C. Guinoisseau, Mme. Falcot, *Mme. Hoste, *Mme. Pernet-Ducher, *Mme. Ravary, †Marie Van Houtte, *Melanie Soupert, *Mrs. A. Ward and *Sulphurea. Light crimson—Corallina, *General MacArthur, †Hugh Dickson, *Liberty, Papa Gontier, Richmond and †Ulrich Brunner. Dark crimson and maroon—*Château de Clos Vougeot, Grüss an Sangerhausen, *Laurent Carle, Louise Van Houtte, Marquise de Salisbury, Princesse de Sagan, †Prince C. de Rohan and Victor Hugo. You must endeavour to provide some small beds for the charming little Polyantha Roses and also the Chinas or Monthlies. A few of the best are: Polyanthas—‡Aennchen Muller, ‡Aschenbrodel, E. Lamesch, Gloire des Polyantha, Jessie, ‡K. Zeimet, ‡Leonie Lamesch, ‡Mrs. W. H. Cutbush, ‡Perle d'Or and Petit Constant. Chinas—‡Arethusa, Aurore, Charlotte Klemm, ‡Comtesse du Cayla, ‡Mme. E. Resal and ‡Queen Mab. Of the two last groups, those marked ‡ make delightful low hedges if such could be worked in your scheme of planting. For arches or pillars the following should find a place in your small rosary: Dorothy Perkins, White Dorothy, Hiawatha, Goldfinch, Blush Rambler, Grüss an Zabern, Tausendschön, Grüss an Teplitz, Alberic Barbier and Rene Andre.

Roses not opening well (*Ardeen*).—Possibly the buds of J. B. Clark were injured by late spring frosts. This Rose has not been good this year. It is not nearly so good a Rose as Hugh Dickson. We think you must be careful when pruning to cut away all weakly looking wood and treat the Rose more as a pillar kind, inducing it to bloom from the long young growths that have been well ripened. Maman Cochet is notoriously a bad Rose to obtain of perfect shape. This, Souvenir de Pierre Notting and White Maman Cochet would open much better if you planted them on the wall which you say is now at the back of them. The wet weather has been against such double Roses expanding well. If possible, have some plants of each in half-standards as they grow much better in this form.

TREES AND SHRUBS.

White Broom flowering in November (*George Shelton*).—The correct name of the white Broom is Cytisus albus. It is a very uncommon thing for it to bloom in November, but the same kind of abnormal flowering is frequently noticeable among other shrubs and also among trees. The Laburnum frequently produces a few flowers during autumn, while some of the spring-flowering Spiræas do the same. The Horse Chestnuts, both common and red-flowered, have occasionally been noted as blossoming in autumn, while other Brooms have been noticed flowering out of season.

Using fruits of Cydonia (Pyrus) japonica (*R. B. Cannon*).—The fruits of Cydonia japonica may be used for jelly-making in a similar manner to the fruits of the common Quince. They are, however, inferior to the other Japanese Quince, Cydonia Maulei, for the purpose, which are considered by some people to be the best of all the Quinces for culinary uses.

MISCELLANEOUS.

Seakale roots recently removed (*K. A. W.*). If the roots are strong, they may be forced all right later on with the aid of manure in the usual way, notwithstanding the removal. If the roots are weak, it would pay you better to let them grow next year without forcing; they would then give good returns the following spring. We think you are too generous in your ablutions to your Azaleas. They resent it in the only way open to them by shedding their leaves. Syringing should now be stopped altogether; so should the soaking in a bucket (this is all right in very warm weather), and the condition of the soil ascertained, whether damp or dry, by tapping the side of the pot with a stick. If the pot rings out hollow, then the plants require watering; if, on the other hand, a dull, dead sound is the result, the plant is wet enough, and no water must be given. The falling of the leaves may be due to thrip or red spider. Examine the leaves carefully under a microscope, and if you find it is so, let us know, and we will tell you what to do to get rid of them. Raspberries should be pruned at once, and they and the Strawberries be manured as early as possible.

Names of fruit.—*Fish.*—1, Marie Louise; 2, probably Winter Nelis; 3, Autumn Bergamot; 4, Queen Apple.

Names of plants.—*A. B. H.*—Gentiana scabra.——*C. R. D.*—1, Canna indica; 2, please send in flower; 3, Grevillea robusta; 4, Selaginella Braunii; 5, Strobilanthes dyerianus; 6, Chlorophytum elatum; 7, Ophiopogon Jaburan variegatus; 8, O. japonicus.——*S. H. B.*—Halesia tetraptera.——*James Redpath.*—A form of Ulmus glabra which has probably originated as a chance seedling.——*Amateur.*—The Violet is Marie Louise.——*Captain C. W. Gordon.*—The Spindle Tree (Euonymus europæus).——*J. W.*—1 and 2, Asplenium Trichomanes; 3, A. Ruta-muraria; 4, Aspidium angulare. The name Stag's-horn Fern is applied to the species of Platycerium in general.——*H. Q.*—1, Scrophularia aquatica variety variegata; 2, Acæna Novæ-Zelandiæ; 3, Thymus Serpyllum lanuginosus; 4, T. azoricus; 5, Cerastium tomentosum; 6, Sedum spurium.——*Fish.*—Cosmos bipinnatus.

SOCIETIES.

NORFOLK AND NORWICH CHRYSANTHEMUM SHOW.

THIS annual event (a descendant from one of the first Chrysanthemum exhibitions in the kingdom) was held in the St. Andrew's and Blackfriars Halls, Norwich, on November 18, 19 and 20. Of latter years there has been somewhat a downward tendency in the attendance. This year it took a more favourable turn. Several classes were devoted to the flowers of the large Japanese forms to enable the small grower to have a chance. The blooms generally were of better quality than last year; there was a distinct freshness in appearance and brightness of colour. T. A. Rising, Esq., Ormesly, Yarmouth, took premier position for forty-eight blooms and secured the silver medal of the National Chrysanthemum Society for the best bloom in the show with a good specimen of Reginald Vallis.

F. J. O. Montague, Esq., Lynford Hall Gardens, a new exhibitor, won for thirty-six blooms, just beating Mr. Edmund Reeve, Catton Grange, who has won in previous years in this class. Incurved, Pompon, single and naturally grown decorative varieties all had their classes and were fairly well contested. The class for a circular group 8 feet in diameter brought out three competitors. Mr. W. Palmer, gardener to J. B. Coaks, Esq., Thorpe, staged a beautiful arrangement and secured the challenge cup and first prize. Mr. C. Burtenshaw, gardener to H. Skelton, Esq., Norwich, was a creditable second; and Mr. W. Rush, gardener to F. P. Hinde, Esq., Thorpe, third.

Besides the Chrysanthemums in the floral section, there were many other subjects of special interest to the horticulturist. We must mention the fine Carnations staged by Mr. W. Allan, Gunton Park Gardens; also Mr. Combe, gardener to Lord de Ramsey, and Mr. W. Lawe, gardener to G. E. White, Esq., Norwich.

Choice exotic flowers were exhibited by Mr. Lewis Smith, gardener to Robert Fellowes, Esq., Shotesham, and Mr. Hilsdon, gardener to Sir F. Adair, Flixton. Orchids were well shown by such keen local growers as H. Rider Haggard, Esq., Miss Violet Fellowes and Lord de Ramsey. Pot plants also made a bold array. Special mention must be given to the plants of the pink and the Turnford Hall varieties of Begonia Gloire de Lorraine staged by Mr. H. Goude, gardener to Edmund Reeve, Esq., Catton Grange. For 6-inch pot specimens they were superb examples of good culture. Mr. Combe, gardener to Lord de Ramsey, showed to the best advantage how the new winter-flowering type Ideal figures as a decorative subject.

The Blackfriars Hall was occupied by the fruits and vegetables, and here there was a bountiful display. Mr. H. Goude won two first prizes for Alicante Grapes with splendidly finished bunches. Mr. W. Allan had far and away the best white Grapes with Muscat of Alexandria. Mr. G. Davison, Westwick, staged some of his marvellous Pears, winning all along the line. He also won many prizes in the Apple classes. The Apples were a show in themselves, occupying a run of table nearly 100 feet long, three dishes deep, the colour, considering the sunless season, being very fine. Brussels Sprouts, Leeks, Celery, Tomatoes, Carrots and, in fact, every vegetable in season were well staged.

The trade displayed several interesting exhibits. Messrs. Daniel Brothers, Royal Arcade, Norwich, staged a fine collection of Apples, every one of which was grown in their own nursery, also plants and trees ready for planting.

Hobbies, Limited, Dereham, had a bank of single decorative Chrysanthemums, and also Roses from their renowned Rose-fields at Dereham.

Mr. R. Notcutt staged fruit and vegetables in a creditable way.

Messrs. Sutton and Sons, Reading, had a stand, with which they were able to demonstrate by the exhibits the high quality of their seeds.

CHESTER PAXTON SHOW.

THE twenty-first annual show of fruit and Chrysanthemums, under the auspices of the Chester Paxton Society, was held in Chester Town Hall on November 19 and 20. For the champion challenge cup for 6 groups Major MacGillycuddy proved to be the victor, and his head-gardener (Mr. Stubbs) was highly congratulated on his achievement. Dr. Lawrence was awarded the second prize, while third honours were secured by Mrs. Arthur Potts, Hoole Hall (per Mr. Amos Walker), who entered the competition for the first time with a very creditable exhibit. The other section of groups, which were for representatives of naturally grown Chrysanthemums, to include the Anemone and Pompon varieties, were also extremely effective, and here keen rivalry was shown between the president of the society (Mr. T. Gibbons Frost), per Mr. T. Gilbert, his gardener, and Major MacGillycuddy. The president eventually proved to be the winner of the challenge silver salver.

In the section for cut blooms and single varieties the principal prizewinners were Mr. E. Peter Jones, Dr. Lawrence, Sir Gilbert Greenall, Sir W. B. Forwood, J. B. Glegg, H. Dewhurst, E. Ellis, Mrs. A. Potts and Mrs. Pitcairn Campbell.

Another pleasing aspect of the educational work of the society was seen in the entries for bottled fruits, the exhibits this year being more than double those of any previous years. The chief prize for the best twelve bottles was awarded to Mr. Thomas Colley, while Mrs. E. Bates of the Talbot Hotel, Chester, was a very creditable second prize winner. The prize for the best six bottles was secured by the son of one of the veteran exhibitors in this class, Mr. T. A. Weaver of Christleton, who was closely followed by Mrs. T. L. Wood of Handbridge.

This year in the hardy fruit classes Mr. F. B. Summers (formerly of Bache Hall) offered a silver challenge cup for the best twenty-four dishes of Apples and Pears, and this trophy was gained by Mr. Philip York, Erddigg Hall, Wrexham, who made an excellent display. Other successful competitors were the Rev. Canon Garnett of Christleton; Mrs. Pitcairn Campbell of Christleton (per Mr. John Weaver, head-gardener); Mr. G. B. Baker, Wilbraham; and Mr. B. C. Roberts, Oakfield.

The leading feature in the fruit classes, not for competition, was a display of Apples staged by the Duke of Westminster (per Mr. N. F. Barnes, head-gardener), which quite upheld the reputation of Eaton. In the trade exhibits Messrs. Dicksons, Limited, Messrs. Clibrans (Altrincham), and Messrs. M'Hattie and Co. and Mr. F. W. Dutton (both of Chester) made excellent displays of Chrysanthemum blooms. The British Columbian Government staged a most effective lot of Apples grown in that country.

CROYDON AND DISTRICT HORTICULTURAL SOCIETY.

A NOTED grower—Mr. Gibbs Box, Lindfield—gave a most instructive lecture on the cultivation of Sweet Peas before this society recently, and in dealing with his subject he tried, as far as possible, to impart to his audience all the valuable hints he had gained by close experience since taking up their culture. Like a great many of our flowers, they should have a good position in the garden, open to plenty of air, but sheltered from strong winds. The soil should be deeply trenched and the subsoil well broken up, at the same time incorporating a good supply of partly rotted stable manure. A liberal dressing of bone-meal may be placed on this, and the trench left rough for winter rains and frosts to well pulverise. In the beginning of March level down the surface soil and add a dusting of superphosphate, leaving the trench slightly hollowed out, so that when the dry weather sets in and water has to be given it all goes to feeding the plants instead of running away at the sides of the rows.

For early flowering about the end of June seeds must be sown in October, about the first week. A good compost should be made and good drainage put into the bottoms of 4½-inch pots. Sow five or six seeds in each pot and leave outside till severe weather sets in. When it does the pots should be stood in a cold frame, leaving plenty of air on. The lecturer has found they will bear as much as 15° of frost, that is if they have been kept properly in the earlier stages. Coddling is harmful to them. About the middle or end of March they may be planted out in the rows or clumps, but do not break up the soil in the pots. Space between each potful must be quite 18 inches; more if plenty of ground is available. Short sticks should be put to the sides of the rows, and a dusting of lime will prevent the attacks from slugs. They should soon commence to go away freely, and longer sticks, quite 10 feet high, should be put to them, always pointing the tops of the sticks outwardly. If the rows are long it will be necessary to stake them as well, running stout string from stake to stake. The advantage of this will be found when late strong winds arise. By the beginning of June, if the weather is dry, watering must be commenced, always using water that has been exposed to the air for at least twenty-four hours. Following clear water, a little liquid stimulant may be given at intervals of ten days. This liquid manure may be made from the stable manure or artificials. Sulphate of ammonia, about 1oz. to three gallons of water, will be found an excellent stimulant, and this should be varied with other compound chemical fertilisers.

Insect pests should be watched for, as green fly is a serious depredation to this flower, and it is better to prevent than attempt to cure afterwards. Syringing with extract of quassia is a good preventive measure. The plants are greatly subject to fungoid pests also, and the lecturer found a solution made with Bordeaux mixture and syringed on the plants from May onwards will keep this in check. The dreaded streak disease, which has been so rampant this year, is another enemy to watch for, and an early application of the foregoing mixture will help to keep this down.

For later blooms seed should be sown in February in 3-inch pots and afterwards removed to flowering quarters. March is quite early enough for outside sowing. Some varieties have very hard-case seeds, and to ensure a quick germination they should be soaked for a few hours in water (about 75°) until they can be seen to swell, or chipping the seed on the clear side will help a favourable germination.

READING AND DISTRICT GARDENERS' ASSOCIATION'S EXHIBITION.

As a means of celebrating the coming-of-age of the Reading and District Gardeners' Mutual Improvement Association, a non-competitive horticultural exhibition was recently held in the Small Town Hall. The exhibition served a triple purpose, for it also took the place of the usual Chrysanthemum show, and will benefit the Gardeners' Royal Benevolent Institution and the Gardeners' Royal Orphan Fund. The society was founded on December 6, 1888, the object being to advance the science and practice of horticulture.

The committee had every reason to be satisfied with the response made by members to their appeal for help in furnishing the show. The exhibits were numerous and the quality exceedingly good. The hall was a scene of beauty, for the exhibits were arranged with much taste. On the platform were three large groups of splendid blooms. The centre one was sent by Mr. S. B. Joel of Maiden Erleigh (gardener, Mr. F. Johnson), and comprised very fine Chrysanthemums with Crotons, Palms and Dracænas, edged with Maiden-hair Ferns. On either side were seedling Chrysanthemums. One of the two groups was from the gardens of Mr. Leonard G. Sutton (gardener, Mr. F. Townsend), and the other was sent by Messrs. Sutton and Sons.

In front of the platform Mrs. Noble of Park Place, Henley (gardener, Mr. T. J. Powell), was represented by a group of fruit, including home-grown Citrons, Mandarin Oranges and Chinese Date Plums. Alongside this and occupying the centre of the table was a lyre composed of Bougainvillea and Cypripediums. There were also some very interesting boxes of retarded Potatoes, showing the offsets of young Potatoes from the old tubers and illustrating the method by which new Potatoes may be grown through the winter months. Some beautiful and well-grown obconica and sinensis Primulas were sent by Mr. Rufus Isaacs, K.C., M.P. (gardener, Mr. W. Exler), and Mr. Leonard Sutton. Mr. R. Erskine of Binfield (gardener, Mr. C. Earl) also sent some good seedling Chrysanthemums. Considering the time of year Zonal Pelargoniums made a splendid show, the most notable exhibits being those of Mr. W. Howard Palmer, Heathlands, Wokingham (gardener, Mr. W. E. Moles), Captain D. M. Miller, Blandford Lodge, Whiteknights (gardener, Mr. H. Reeves), and Mr. G. Bird, Shrublands, Earley (gardener, Mr. A. Abrahams). The Gloire de Lorraine Begonias were very charming. Colonel W. Thornton of Maidenhatch, Pangbourne (gardener, Mr. W. Clarke), exhibited some well-grown plants, together with Crotons and Maiden-hair Fern. The fibrous-rooted Begonia formed part of the exhibit of Mr. J. Okey Taylor of Cravenhurst, Reading (gardener, Mr. T. Brown). A great feature of the show was the display made by Mr. G. Stanton of Upper Culham, Henley, at the balcony end of the hall. It included, under the title of "Winter Reminders of Summer Beauties," a collection of dried specimens of everlasting and other flowers, wild and cultivated, the variety and effect being quite striking.

THE FRUIT AND VEGETABLES.

Collections of Apples were shown by Mr. G. W. Layley, Beenham; Mr. Martin John Sutton of Holme Park (gardener, Mr. R. Doe); Mr. A. F. Walter, Bear Wood (gardener, Mr. W. Barnes); and, of course, by the president, Mr. F. B. Parfitt. All were very finely grown. Mr. Parfitt's were practically all pot-grown fruit, and included King Acre Pippin and an exceptionally good Charles Ross. Both are comparatively new varieties. Mr. F. W. Macdonald (the association's treasurer) had a decided novelty in the shape of the fruit of the Cydonia japonica. Mrs. Collins, Stoneham House, Tilehurst (gardener, Mr. H. Goodger), showed a collection of vegetables; Mr. G. Hatch of The Gardens, Cavenham Park, Mildenhall, a basket of very fine Onions; Mr. F. Lowenadler of Badgemore, Henley (gardener, Mr. T. Hatton), a collection of fruit; the Duke of Wellington, a collection of fruit, including some exceedingly well-grown Grapes, for which Mr. A. G. Nicholls, his Grace's gardener, has so high a reputation; Mr. W. Pole Routh of Oakfield (gardener, Mr. H. House), Apples; Sir William Farrer, Sandhurst Lodge, Wellington College, a collection of fruit and another of vegetables; Mr. Drew of the Department of Horticulture, University College, a collection of vegetables and fruit; and Miss Cripps, Preston, Kendrick Road (gardener, Mr. Durrant), three dishes of fruit. The fruit exhibits had a background of Begonias sent by Mr. S. B. Joel, and vases of Chrysanthemums sent by Mr. M. H. F. Sutton (gardener, Mr. H. C. Loader).

AUTUMN SHOW AT MANCHESTER.

THIS show was held under the auspices of the Royal Botanical Society at the White City on November 18, 19 and 20, and was the best that had been held for years, the entries being more numerous and the quality good.

Chrysanthemums in pots were certainly below the high standard usually seen at Manchester, yet Mr. J. Smith, gardener to James Brown, Esq., held his accustomed position, winning in each of the three classes, viz., for nine large-flowering, six Japanese and six Pompons, in each case staging fair plants. For the miscellaneous group the same exhibitor had the first and only exhibit, his Palms being excellent.

The cut bloom section, as usual, proved the best of the show. For twenty-four Japanese and twenty-four incurved, distinct varieties, Mr. G. Haigh, gardener to Sir W. H. Tate, Bart., Woolton, augmented his other successes this year by winning the first prize with good, all-round stands, including splendid blooms of the Hon. Mrs. Lopes, E. J. Brooks, W. Knox and Algernon Davis. Mr. J. Hunt, gardener to Pantia Ralli, Esq., Epsom, was a good second, his incurved being especially strong.

For thirty-six Japanese in not less than eighteen varieties, Mr. T. Stevenson, gardener to E. Mocatta, Esq., Addlestone, was well ahead with large, massive flowers of extra good colour. Among the newer varieties in this stand were Master James, Walter Jinks, O. H. Broomhead, Leslie Morrison and F. S. Vallis. Mr. J. Hall, gardener to Lady Ashburton, Romsey, was second; and Mr. G. W. Drake, Cardiff, third. For eighteen blooms the Addlestone flowers were again to the fore, Mr. W. Iggulden, Frome, and Mr. J. Hall winning the other awards. For twelve blooms the prizemen were Messrs. T. Stevenson, J. Hall and W. Iggulden.

For twenty-four incurved, Mr. G. W. Drake proved the champion with good blooms, Mr. J. Hunt being second and Mr. C. Groves, gardener to Sir Gilbert Greenall, Bart., Warrington, third.

For twelve incurved varieties the first and second of the previous class held their own, Mr. G. Haigh completing the trio.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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THE WINTER PRUNING OF HARDY FRUIT TREES AND BUSHES.

FRUIT trees grown in gardens, either on walls or in the open, need pruning owing to the restrictions of space. The majority of amateurs have a very vague idea of pruning; often it is understood only as cutting back all young growths to two or three buds. It is an operation that requires thought and common-sense. A knowledge of the functions of the leaves, the different methods of fruiting, whether from the young wood or from spurs, or a combination of both, and also an understanding of each individual tree to be pruned, are necessary to beneficial pruning. While intelligent pruning is beneficial—and many trees are ruined by allowing them to grow wild—on the other hand, much harm is done with the knife in inexperienced hands.

The Primary Object

in pruning is to concentrate the energies of the tree into a restricted number of branches, and to allow only as many branches as can be reached by sun and air. It should be remembered that the immediate result of winter pruning is more and stronger wood growth, so that the less a vigorous-growing tree is cut back the better. If space allows for the shoots to be left at full length, the result will probably be that spurs with fruiting buds may be formed at every joint instead of wood growth.

Three Kinds of Growth

are made in the summer by fruit trees, and are called leaders, side shoots and spurs. The leaders are those at the extreme end of the branches; these are used for extending the tree. The side shoots are the growths that project from all sides of the branches, and spurs are the short, stubby growths with a cluster of buds on them.

Young Trees

that are being trained to a required shape may have the leaders shortened to an eye pointing in the direction it is wished the branch should take, or may be left the full length. In the latter case the top bud will grow straight out and so continue the branch. It is advisable not to prune young trees severely; they will come into a fruitful condition sooner if allowed to extend somewhat freely.

Tools for Pruning

should be of good quality and have keen edges. A knife is preferable for most subjects; but for Gooseberries and other bushes a pair of secateurs may be used. When removing thick branches use a saw, and then finish by smoothing the surface of the wound with a knife. All dead branches must be cut close back to the main stem, and when cutting the live wood cut close to an eye; if a snag is left above the eye it sometimes causes the decay of a branch. Generally speaking, we can divide fruit trees into

Two Classes for Pruning,

(1) those which fruit principally from the wood made the previous summer, and (2) those which fruit from spurs.

The First Class

includes Peaches, Nectarines, Black Currants, Raspberries and Morello Cherries. In dealing with the wall trees, enough wood should be left to furnish the wall space at about 4 inches apart. The aim of the pruner should be to cut away as much of the wood that has borne fruit as can be spared, and lay in the young shoots of the previous summer. Especially leave young wood near the base of the trees, and cut out as much old from near the top of the walls as is consistent with leaving enough to furnish the wall at the distance named. In this class much of the pruning is done in summer; but summer work is not included in the title of this article. Cut the old fruiting canes of Raspberries level with the ground, and leave the young canes at a distance of 6 inches apart if grown in rows, and six canes in a group if groups is the method favoured. Black Currants and Gooseberries fruit from both the young wood and the spurs. Any shoots that cross and any hanging on the ground should be cut away. Thin the remainder to 8 inches apart. In

The Second Class

we have Apples, Pears, Plums, Red and White Currants, Apricots and Sweet Cherries. The Currants may be pruned by cutting all the young growths back to within half an inch of their base, except the leaders; these, if there is room for extension, may be left 9 inches in length; if the bushes are large enough, cut back to 2 inches. The branches of the bushes should be 1 foot apart and arranged in the shape of a cup, with the centre somewhat open. Apples and Pears in the open ground should have the branches 2 feet or more apart. Plums may be 6 inches closer. Cut the leading shoots back to 6 inches or 12 inches, as it is wished to extend the tree, and be careful to cut to an eye that points away from the centre of the tree and clear of the other branches. Shorten all side shoots back to the second joint. The same rules apply to wall and espalier trees, except that a distance of 1 foot between the branches is sufficient. Sometimes, from some cause, a branch becomes bare of fruiting spurs for some length; this is more frequent in Plums on walls. When this occurs, lay in the best-placed shoot alongside the old branch, let it extend by about 12 inches yearly till it almost reaches the length of the branch it supplants, and then cut the old one away.

There is another form of pruning for these spur-fruiting trees, that is, the

Pruning of the Spurs.

By shortening the side growths yearly the spurs become much elongated and the blossom-buds much multiplied. With such a quantity of bloom the individual flowers will be weak; better a moderate show of fertile flowers than multitudes that are weak, if not quite sterile. Besides the long spurs being unsightly, in the case of wall trees they lose much of the benefit to be derived from the heat and shelter of the wall. Cut back these spurs to the buds nearest

the branch, also thin the buds to two or three. An article on winter pruning would be incomplete without the inclusion of

ROOT-PRUNING,

because there are cases where it is the only pruning that will bring the tree into a fruitful condition. When a tree has not borne fruit for a number of years, and the growths towards the top of the tree are strong while those lower are weak, branch-pruning is useless; it only increases the evil—the roots must be checked. If the tree could be extended freely, the trouble would in many cases right itself. There have been cases of trees on low walls being unfruitful while severely restricted, but when the walls were heightened and the leading shoots left full length the fruitfulness was all that could be wished for. Root-pruning is laborious work, but in some cases it amply repays the labour; on the other hand, enthusiasm sometimes leads amateurs to root-prune when unnecessary. If the blossom of a fruit tree is destroyed in the spring by adverse weather, the growth of wood is certain to be more prolific, there being no fruit to tax the energies of the tree. If this is the first year the tree has failed to fruit, and it now has blossom-buds on it, do not prune the roots; a crop next year will restore the balance and check the exuberance of the wood growth.

Young trees are the more likely to need root-pruning and any vigorous trees which are severely restricted as to space. Trees planted over an unsuitable clayey subsoil are also more likely to need this attention than those on a gravelly subsoil; the roots strike down in the clay, they grow strongly, but are deficient in those small fibres that tend to produce fruit-buds in a tree. If these long roots are shortened and laid in nearer the surface in a horizontal direction, the result will be less wood growth and an increased formation of fruit-buds.

Young trees may be completely lifted, the strong roots shortened and the soil made firm when replanting. In dealing with larger trees, open a trench about 5 feet from the stem to a depth of 3 feet; then work out the soil towards the tree with a fork, getting well under the tree so as to sever any straight descending roots. Do not leave the roots exposed longer than is necessary; cover with mats till ready for filling in. Preserve all the short fibrous roots and cut back the strong ones. Let the cut be a slanting one, slanting from the under side of the root and cutting outwards from the tree. In the case of very large trees and any trees of Cherries or Apricots, it is better to extend the operations over two seasons, as the check would be too great. Prune one side of the tree one season, and complete the operation the following winter. WILLIAM G. WADGE.

Viceregal Gardens, Dublin.

NOTES OF THE WEEK.

FORTHCOMING EVENTS.

December 13.—United Horticultural Benefit and Provident Society's Committee Meeting. National Chrysanthemum Society's Executive and Floral Committee Meeting, at Essex Hall, Strand.

Jubilee Flower Show, Haarlem, 1910.—We learn that this show will be continued till May 29, 1910. The late Tulips and the many other May-flowering bulbous plants, which will be one of the special features of the show, will not be in full glory before the second part of May, and consequently the continuation of the show till the end of May seems necessary. Moreover, this will enable the visitors of the Brussels International Exhibition, and especially the members of the Botanical and Colonial Agricultural Congresses, to visit Haarlem and its Jubilee Flower Show, for which they will receive special invitations. We have already mentioned that three special temporary shows will be held. A fourth exhibition of this kind is now fixed for May 20 to 22, 1910, when the Dutch Horticultural and Botanic Society will hold its usual spring flower show in the excellent buildings of the Haarlem Jubilee Show.

Mr. F. W. Moore, V.M.H.—It is a pleasure to know that the degree of Master of Arts has been conferred on Mr. F. W. Moore, the curator of the Glasnevin Botanic Gardens, by the University of Dublin. Mr. Moore is not only a botanist of distinction, but a lover of garden plants in general. The gardens which he superintends with such ability are among the most beautiful and interesting in the world.

Colonial-grown fruit and English bottled fruit.—The exhibition of the above fruits, arranged by the Royal Horticultural Society and held in the society's hall, was opened by Her Royal Highness the Princess Louise and His Grace the Duke of Argyll, K.T,, G.C.M.G., G.C.V.O., on the 1st inst. Her Royal Highness and His Grace were received by the president (Sir Trevor Lawrence, Bart., K.C.V.O., V.M.H.), the council and secretary of the society, Lord Strathcona, K.C.M.G., and other Agents-General and representatives of the Colonies concerned. The exhibition was an interesting one in several respects, and was on a larger scale than previous shows of its kind. Generally speaking, the Colonial exhibits were of the usual character, and we do not propose to go into details of these. The Apples, which formed the bulk of the fruits, were, as usual, splendidly graded and of very rich colour; but we noticed that some soft-fleshed varieties were badly bruised. Two of our leading home growers, viz., Messrs. J. Veitch and Sons, Limited, of Chelsea, and Messrs. G. Bunyard and Co., staged excellent groups of English-grown fruit, which compared favourably in every respect with that from the Colonies except in colour, which, of course, is due to climatic conditions. A feature of the show which appealed to us most was the English-grown bottled fruit. A decade or so ago the bottling of fruit was but little understood in this country, and even last year the exhibits at a similar show were of a meagre character; but this year they were shown in abundance, and proved that knowledge respecting their preparation is being gradually spread among growers. This is as it should be, and we think the Royal Horticultural Society is doing excellent work in arranging these exhibitions of bottled fruits. The demonstrations by Miss E. M. Bradley were also of a most instructive character, and should do much to forward this work. Every year there is a great deal of fruit wasted in this country owing to a glut at a certain period, and if this can be bottled and thus preserved for use when fresh fruits cannot be obtained, nothing but benefit can be the result. We were pleased to note that various kinds of apparatus for this work were being shown, a fact which proves that our manufacturers are alive to the demand for these goods.

Iresine Herbstii in Fiji.—In a very interesting and exhaustive paper communicated to the Linnean Society by Miss L. S. Gibbs, and recently published in the Journal of the society under the title of "A Contribution to the Montane Flora of Fiji," is a list of plants collected in August, September and October, 1907, from an elevation of 2,700 feet at Nadarivatu in the island of Viti Levu, Fiji. Speaking of the interest with which the natives cultivate their gardens, the writer says: "The South Sea Islander is a born gardener. All trees and plants are known by name and their utility or beauty appreciated. Their villages are a blaze of colour from the many-hued foliage plants grown round their houses, and magnificent specimen trees shade the levelled grass areas on which their 'towns' are built. Favourite species for beauty or use will be planted along their roads or tracks, and the wandering native will preserve seed for future planting of any particular species that may strike his fancy." As an illustration of their love for foliage plants, Miss Gibbs describes the discovery of the well-known bedding plant Iresine Herbstii, which is a native of Brazil and first flowered in this country at the Kew Nursery, Richmond, by the late Mr. Herbst in 1864. She says: "This beautiful plant has taken possession of many of the broad telephone cuttings through the forest which intersect the Luva road as it winds up the spurs of Mount Victoria between Yasogo and Navai. It would be difficult to exaggerate the magnificent effect of these straight lines about 5 mètres wide, one dense mass of brilliant carmine foliage, bordered by the dark green forest. It runs up through the bordering trees and shrubs to a height of 3 or 4 mètres, and each branch is terminated by a delicate feathery panicle of white flowers which enhances the general effect. It is of recent introduction, and its extraordinary rapid increase has been noted. Could people only see such a plant growing naturally and unrestricted, with the added grace of the flowers, it would sound the death knell of horticultural traditions, which would restrict everything to bedding out limits."—JOHN R. JACKSON, *Claremont, Lympstone.*

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Musk Roses.—Some of these are very useful for pillars and arches, and are very hardy. Not all of them possess the Musk-like perfume so strongly as Princesse de Nassau, which is straw yellow in colour. Brunonii (moschata) is also very sweet and can be had in single or double form; it is, perhaps, the finest white. There are several hybrids of this, and a few heps sown at any time now or early in spring often produce great variety. A new white, Snowstorm, is one of the most happily named of all Roses. The flowers are semi-double, pure white, in large bunches, and continue throughout the season. Mme. d'Arblay is one of the earliest Roses to flower; delicate flesh in colour. The Garland is a very rampant grower, and produces fawn-coloured flowers about mid-July in an ordinary season. Rivers's Musk, an old favourite, is one of the most fragrant pink and buff varieties.—A. P.

Grease-banding fruit trees.—My attention has been drawn to a note in your "Answers to Correspondents," Fruit Garden section, giving advice *re* grease banding. It may not have come to your notice before, but there is very great danger to the life of fruit trees incurred by the use of cart-grease. This grease, being mineral, blisters the bark, both outer and inner, destroying the cellular action, and has to my knowledge been the cause of the destruction of some twelve year old standards. Not only is the above enough to condemn the use of such a grease, but there is another factor to be considered, *i.e.*, the quickness with which it dries. It can be readily understood that you must have the bands sticky for at least five weeks, and in some cases two months. Cart-grease will usually dry board-hard in a week, or at most two weeks, necessitating a further greasing. The whole idea of making a special grease for banding is, first, to prevent the destruction of bark, and, what is most important, to get a compound that will remain sticky under ordinary conditions for some considerable time.—P. CLAYTON. [We gladly publish the above letter from our correspondent, but at the same time would point out that cart-grease, if used in a proper way, will not injure the trees. Its liability to dry is, in our opinion, the greatest drawback to its use.—ED.]

Polygonum baldschuanicum not flowering.—I think your correspondents who are of opinion that there are two varieties of

Polygonum baldschuanicum are correct. For some time back I have been studying the plants I have seen in various gardens, and under similar conditions some plants were masses of bloom, while others produced few flowers indeed. In other places both forms were a long time before they flowered, but what one may call the floriferous one in the end far surpassed the other. The floriferous one is, in some gardens in the South of Scotland, a mass of bloom in its season; while the other flowers very sparsely. In other districts I have observed the same.—S. ARNOTT, *Dumfries.*

—— I should like to give my experience of this. I have had a plant for six years on a dead tree, and while there it did nothing. It was moved to a pergola, where it grew most vigorously but never flowered. I moved it to a south wall, where it has grown yards but has never bloomed. How is one to know the difference between a plant that will flower and one that will not? Surely the nurserymen ought to know the difference.—M. B., *Penrith.*

Hybrid Streptocarpus.—I was much interested in the article which appeared in THE GARDEN of November 13 from Mr. E. Beckett of Aldenham Gardens dealing with these remarkably free-flowering plants. I was privileged to see the collection at Aldenham during the past summer, having formed one of a party of the London Branch of the British Gardeners' Association who visited these famous gardens. The plants in question filled a span-roofed house, and it was noted that Mr. Beckett's efforts in the improvement of this family had been rewarded in the production of some exquisite shades of colouring. Mr. Watson of Kew was present and was impressed with their beauty, and suggested that they were well worth photographing, and the hint was promptly acted upon by the writer. I may take this opportunity of saying that each and all of our party spent a very pleasant time at Aldenham, in spite of the somewhat inclement weather; also that we were deeply impressed with the condition of the gardens. It goes without saying that they are controlled by a past-master in the art of gardening. We also felt it an honour to be escorted around the grounds by the genial and gifted owner, the Hon. Vicary Gibbs, who was very keen in pointing out objects of unusual interest or rarity.—WALTER H. AGGETT.

Hybrid Tea Rose La France de '89.—Several notes have appeared in THE GARDEN this autumn from correspondents in praise of this grand Rose. I have a dozen plants here under my charge, so would like to mention my own opinion. The present year has been anything but a good one for the Queen of Flowers, but this old favourite of mine was well in the fighting-line at our local exhibition. I staged it in every class in which it could be shown, including a class for six of any one variety, and I was awarded first prize in each instance. I also gained the National Rose Society's silver medal for the best Hybrid Tea with this variety. Of its merits for exhibition no more need be said; but, then, it is a good garden Rose, strong in growth, with magnificent foliage, and, judging from the long shoots it sends up each year, I do not hesitate to say it would make a good climber; but I have not tried it as such. To show that this fine old Rose is little known or cultivated, several visitors when referring to it at the exhibition spoke of it as "that new Rose of yours," and expressed surprise when I informed them of its age. I quite agree with one of the correspondents that its odd name has much to do with its unpopularity, and were it possible for it to be re-christened with a more suitable name, it would soon be held in great esteem.—GEORGE BOYD (gardener to S. F. Jackson, Esq.), *Danehurst, Epsom.*

Rosa Seraphini.—Although this miniature Rose flowered for the first time in this country in 1900, its peculiar beauty seems to have been overlooked amid the wealth of so many now at the command of the planter. There is a beauty in suitability for given purposes, but few seem to have considered the propriety of introducing Roses among the occupants of the rockery, though one may occasionally see R. alpina in such a situation. R. Seraphini is a mountain Rose in its native habitats in Corsica, Sardinia and Sicily, being found above 1,600 feet of elevation in the Apuan Alps. Two varieties of it are also found on the Maritime Alps. It flowers profusely while only 12 inches to 15 inches high, and the thorny stems are furnished with numerous short shoots, each terminating in a bright rose flower 1½ inches in diameter. A little bush thus gets covered with brightly coloured miniature flowers that would associate well with the usual occupants of the rockery. The leaves are only 1½ inches to 2 inches long, and made up of seven ovate or roundish leaflets. A full-sized plant would neither overcrowd its neighbours nor grow so tall as many things planted on rockeries even of moderate size. From a spectacular point of view, it is far more effective than hundreds of subjects considered appropriate for this particular form of gardening. I note it is catalogued by one firm of Rose-growers, and hope it will soon find its way into many gardens, where it might be grown as an edging to Rose-beds or planted on the rockery.—J. F.

Gilia coronopifolia.—This handsome plant has proved itself of more than average merit as a decorative subject in the autumn garden. The unfavourable conditions which have generally characterised the past season have had little or no adverse influence upon this plant, as on November 12 it was still flowering profusely; the first flowers opened in the beginning of August, so that the display has now lasted over three months. It is an easy subject to grow, being most satisfactory when treated as a biennial. Seed is sown about mid-July in the open, choosing a border lightly shaded and sowing in shallow drills. The seedlings are allowed to remain in the seed-beds till September, when they are potted up in 3-inch pots and placed in a cold frame to winter. In March or April they are planted out in their flowering quarters, choosing a warm, sunny position and allowing from 18 inches to 24 inches between the plants. Once established and when about 9 inches in height, the points of the shoots are pinched out in order to force the plants to develop lateral branches. As many as a dozen laterals will replace the single lead, and these assume the same erect habit of growth. Pinching favours early flowering, as those so treated commenced flowering quite three weeks ahead of unpinched plants, although treated similarly in all other respects; it also produces dwarfer and more compact plants, and owing to the greater number of stems, the effect when in flower is much more solid and splendid. Pinched plants require early staking, as the lateral branches are readily torn from the main stem by winds. In this district, Gilia coronopifolia is of no practical garden value when treated as an annual in the open; the flowers come too late in the season and the colour is not nearly so bright. It will interest readers of THE GARDEN if they refer to Vol. LXXI., page 564, where Mr. S. W. Fitzherbert details his experience with this plant treated as an annual. Probably in many favoured districts it would succeed as such; in pots it certainly would without question. Gilia aggregata and G. coronopifolia both succeed in ordinary chalky soil; natural-grown plants attain a height of rather more than 5 feet; those pinched average a height of 4 feet. G. coronopifolia forms a shapely and effective specimen when given pot culture; the temperature of a cool orchard-house meets all its requirements, and plants raised from seed sown as already indicated come into flower the beginning of July. Plants grown under glass are very bright in colour, remaining effective for at least two months, and from these a crop of seed is practically certain.—THOMAS SMITH, *Walmsgate Gardens, Louth.*

AN OLD FAVOURITE: NARCISSUS BARRI CONSPICUUS. (*See page 601.*)

TREES AND SHRUBS.

WINTER WORK IN THE SHRUB BORDER.

IN the majority of gardens it is safe to assume that any planting or rearranging of deciduous shrubs that needed doing has by now been carried out, and where such is the case, other work in the shrub border should have attention as early as possible. Generally peaking, the pruning of flowering shrubs is but ttle understood, as manifested by the numerous eries one receives on the subject, and frequently ey are allowed to grow as they please, with e result that they become overgrown masses vegetation that cannot be regarded as useful ornamental. Although it is not necessary or sirable to prune severely the majority of wering shrubs, it is necessary to keep them thin bounds and to so thin the branches that ey receive the full benefit of light and air. ten when any restriction is done it takes the rm of a cutting back with the shears, an opera- n that soon results in a dense mass of non- wering growth.

Although space will not admit of one going into details as regards the pruning of flowering shrubs here, there are one or two general rules that may be noted, and which will doubtless be useful to some readers at least. In the first place it cannot, in any case, be wrong to cut out any dead branches that may be present, and these should, if possible, be so cut that live wood is entered. When this operation has been attended to, we may, for the purpose of pruning, roughly divide our flowering shrubs into two sections, viz., spring and autumn flowering. Beyond cutting out dead wood and doing any thinning that may be absolutely necessary, the first-named set should not be pruned in autumn, as this would mean the cutting away of many flowers; the proper time to prune these is directly after flowering, and in the case of those which produce their blossoms entirely on young wood it will be a good plan to cut hard back each year after the available space has been filled. Those that flower in late summer and autumn may be pruned now, and, generally speaking, it is better to give a general thinning than to do much cutting back, unless, of course, it is desirable to restrict branches that are growing out of bounds. Avoid cutting hard back the various members of the Cytisus and Genista families except when young, as old plants do not usually break into new growth any too readily. Every cut should be made smooth, and any an inch or more in diameter coated with Stockholm or ordinary coal-tar.

When the work mentioned above has been completed, the border should, where possible, be dug over and thus made tidy for the coming season. Of course, where bulbs are planted beneath the shrubs, it is impossible to do more than clean off the weeds, lightly prick over the surface with a fork and throw some clean soil over to make up for any that may have been removed with the weeds. In all shrub borders and beds, however, it is usually possible to find vacant spots, and where a general digging between the shrubs cannot be given, deep holes may be taken out in these vacant places, and weeds, leaves and other rubbish be buried therein. This will save a vast amount of work that would otherwise be entailed in carting such rubbish away, and the cultivator has the satisfaction of knowing that he is returning to the soil, in the leaves, some, at least, of the nourishment that has been taken from it by the shrubs.

The question of manuring flowering shrubs is a moot one, but, generally speaking, it is better to under rather than over do this. Where a shrub has been in poor health for some time and has failed to make satisfactory new growth, it is a good plan, before digging the border, to remove a few inches of soil from its surface roots and replace it with well-rotted manure, just covering the latter with a thin layer of soil. H.

NEW SINGLE CHRYSANTHEMUM J. B. LOWE. (*Three-quarters natural size. See page 602.*)

COTONEASTER HUMIFUSA.

THIS is a peculiar species with long, thin, prostrate branches, quite different from any other known kind. It has been introduced from China within the last few years, and is now in cultivation in several gardens. Growth is rapid, and specimens three or four years old may be several feet across. It rises, in a young state, barely an inch above the ground, the wiry branches growing out in all directions and forming roots in many places. The leaves are ovate and up to an inch in length, deep green on the upper surface and paler beneath. The flowers are white, borne during May and June, and are succeeded by small red fruits, which ripen during August and September. It is essentially a plant for the rock garden, where its branches can hang over a large piece of rock, or it would thrive well if planted round the overturned butt of a tree. For the open border it is too prostrate in habit to make any show, and would be likely to become crowded out by coarser-growing plants. Anyone who possesses a single plant may soon raise a stock, as cuttings inserted in sandy soil in summer and kept close for a few weeks may be expected to root well. W. D.

PYRUS SINENSIS SIMONII.

THE Sand Pear (Pyrus sinensis) fulfils a somewhat similar mission in China and Japan to that which the common Pear (Pyrus communis) does here, for it has been improved by cultivation in much the same way, and a number of varieties are cultivated for their fruits. The type forms a tree 20 feet or more high, with dark green leaves and yellowish green fruits, marked with brown, about as large as a medium-sized Hessel Pear. When ripe they are sweet and juicy, but rather insipid and gritty. The variety Simonii is quite different from the type in appearance, for in the first instance the tree is of spreading growth, with long main branches sparingly clothed with branchlets, while the fruits are quite different in shape. In this instance, instead of being the ordinary Pear shape, the fruits are larger at the base, the upper or calyx end being small and constricted. They are from 1½ inches to 2 inches in diameter, yellowish green like the type, and covered with small brown dots. D.

THE FRUIT GARDEN.

FRUIT NOTES.

RASPBERRIES.—Those who are experienced in the culture of this valuable fruit will have completed all the autumn and winter attention that the plants demand long before these lines appear in print; but the novice may have let things slide under the assumption that if other fruits are dealt with in December, so also should these. This plant, however, is totally distinct from any other that we grow to such an extent, for the simple reason that it produces all its fruits on the new canes, and the old ones are worthless directly they have yielded their burden. Thus, with a variety that finishes in late summer, the correct practice is to immediately cut out the old canes from the base, for as long as they remain they will rob the new ones of light and food. With autumn-fruiting plants the principle is identical, but the cutting out is necessarily later. If any old canes still remain, clear them out forthwith and then consider the young ones; if there are more than six at a stool, all over that number should be pulled out. These things done, hoe and hand-weed until the plantation is scrupulously clean, prick over very lightly with a fork—if the tines are driven in deeply, it is certain that injury to the roots will be the result—and finish with a dressing of equal parts of half-decayed leaves and manure, or in the absence of the leaves use manure alone.

STRAWBERRY-BEDS. — These, too, ought to have been cleansed before this; but if the work has not been done, there must not be a moment's further delay, unless, of course, the weather is unsuitable for any work on the land. All dead and decaying leaves must be pulled off the plants, and some of the good ones may come as well, so as to fully expose the crowns. Weeds must also be absolutely cleared either with the hand or the hoe, digging them into the soil in the middle of the alleys if there is sufficient space. Then point over the entire surface and spread on long manure for the winter.

CLEANSING BARK.—Practically all our fruit trees are liable to get their stems coated with lichens and mosses, and it is most important that all this should be cleared off. In some districts the task is no light one at the outset; but after the preliminary scraping has been thoroughly done, the annual scrubbing with caustic soda will keep everything in perfect condition. The most useful form of scraper is one of triangular shape, as the point can be worked into the crannies of the bark and the forks of the main branches, thus clearing out accumulations and doubtless accounting for many hundreds of eggs. All vestiges of mossy growth should be scraped away, and then that portion of the bark that is thoroughly hard must be scrubbed with the caustic soda solution which has been frequently recommended in the pages of THE GARDEN and need not now be repeated. On the smaller wood and for those parts of the tree which are not readily accessible a knapsack sprayer should be requisitioned, for with its aid all the shoots can be coated with a fine film of the cleansing wash and the tree will be most substantially benefited.

PLANTING.—Whenever the weather is favourable let all planting be pushed along at the utmost speed consistent with sound work, so that if possible the entire operation shall be completed before Christmas. It is, however, the height of folly to attempt to go on the ground when it is sodden with water, as far more harm than good must inevitably be the result.

GREASE BANDS.—There is a possibility that those which were placed in position towards the end of September and at the beginning of October will be hardening, and when they come into that state they are valueless for their special purpose—arresting the upward progress of the female winter moths. The grower should make it a rule to examine the bands frequently, and directly it is seen that one is becoming ineffectual, an additional supply of cart-grease or other substance must be smeared on. It is no uncommon thing to hear sticky bands denounced as useless, and the reason is simply that they are often applied too late, and, more frequently still, never receive a second thought after being put into position; in these circumstances they cannot do themselves justice. If properly attended to they will do a vast amount of good.

FRUIT-GROWER.

ASCLEPIAS DOUGLASII IN A SOUTH DEVON GARDEN.

THE FLOWER GARDEN.

DAFFODIL REFLECTIONS.

SOME GOOD OLD MEDIOS.

WHEN the Editor sent me the accompanying illustration of our old friend Barri I had just read Mr. Watts's most interesting and suggestive notes about the modern Daffodil. Aye! aye! there are modern Daffodils, just as there are modern young ladies who can simper and smile, but who hardly know how to thread a needle or boil an egg. As he says, Daffodils should be "beautiful and useful." Barri (which is my familiar way of speaking of Narcissus Medio-Coronatii Barri conspicuus) is the very antithesis of *his* modern Daffodil. It is essentially a border plant. It wants no thumbing to add to its natural beauty, and if it were "boiled out" it would look so woe-begone and draggly that no one would know it, while its stalk will satisfy even Mr. Duncan Pearson.

The late Mr. Bourne is fairly near the mark when, on page 82 of his "Book of the Daffodil," he says, "probably the most useful of all the Narcissi, regard being had to its beauty, good constitution and rapid increase." Extremes meet in Daffodils as in other things. Some of the very best are to be found at either end of the scale of the dealer's price-list. Low down, very low down, is Barri conspicuus; but this does not detract from its merits—it only enables us to buy more for our money.

Two other old cheap varieties of a similar type are Autocrat and Frank Miles. The former is a very lovely yellow self with an almost ideal perianth and cup, and as good in the garden as on the show-table. Frank Miles is a paler yellow and has long, twisted perianth segments. It is one of the very best Daffodils for cutting. Both these are "beautiful and useful," and do well anywhere. In grass they are splendid. I am not sure if I do not like them better than trumpet varieties for this purpose. There is a peculiar gracefulness about their carriage which harmonises so well with their carpet of green. A fourth variety that I should like to mention is Queen Bess. Its particular merit consists in its being about the first Medio to flower. It has a white perianth and a yellow cup, and, accordingly, is a good contrast to the three kinds mentioned above.

JOSEPH JACOB.

ASCLEPIAS DOUGLASII.

THIS is a noble plant, but seldom met with in gardens, yet its stately appearance undoubtedly renders it a valuable plant for the herbaceous border, it being well worthy of culture for the sake of its foliage alone. When enjoying perfect health it will often exceed 6 feet in height, and its large and handsome leaves, on strong plants, attain a length of a foot and a breadth of 4½ inches. A well-grown specimen is thus an ornamental object as a foliage plant. Its flowers can scarcely be said to compare for effectiveness, with the blossoms of Asclepias tuberosa,

they have a quiet charm of their own. The nt flowers during August and bears large, nded heads of small blossoms, some of the ver-clusters having a circumference of close on inches. The corollas, which are less than f an inch across, are yellowish in colour and the lexed petals are of a dull reddish tint, the nded flower-heads appearing at a little tance to be flesh pink in colour. Somewhere out 200 blooms are carried on a single flower-ad. The blossoms are sweetly perfumed, and numerable insects, butterflies, bees and bumble-es settle on them, and soon becoming stupefied the nectar, cling helplessly to the heads of oom. Asclepias Douglasii is a native of estern America, whence it was introduced in 46, and is perfectly hardy. It is very tenacious life, and however carefully a plant is lifted, oots will spring up for years afterwards from rtions of the roots that were left behind.

South Devon. WYNDHAM FITZHERBERT.

EW CHRYSANTHEMUM J. B. LOWE.

IS is one of the most attractive single varieties have ever seen, and as shown by H. J. Jones, mited, Lewisham, before the Royal Horticul-

A BORDER OF CANTERBURY BELLS IN A HIGHGATE GARDEN.

ral Society on the 23rd ult., was a flower of ry high quality indeed, and fully deserved the ward of merit granted on that occasion. The ep rich crimson colour, shaded with scarlet, is ost pleasing, and produces that warm effect so sirable in the dull autumn months.

ORNITHOGALUM NARBONENSE PYRAMIDALE.

AM a constant reader of THE GARDEN. It is a rprise to me that Ornithogalum narbonense ramidale is so little grown. It is of easy lture in light soils if taken up in July and dried d replanted in October, and increases rapidly. does well in water, takes most graceful shapes, d flowers to the last buds. The photograph, ken by a friend, does it poor justice, but I ought you might like to have it. The dis-vantage is that the leaves become shabby fore the plant flowers, but that can easily be ncealed. MARIA THERESA EARLE.

Woodlands, Cobham, Surrey.

BORDER OF CANTERBURY BELLS.

E Canterbury Bell is a well-known plant and longs to one of the most useful of plant nilies; but I question whether it gains so much recognition as many other far less beautiful plants. Perhaps that may be on account of its beauty being somewhat short-lived when compared with most other flowers. Be that so or not, a good border or mass of this Campanula in flower is not easily forgotten. The four chief colours are rose, violet, white and lilac. The illustration shows a border of these plants 50 feet long by 4 feet wide growing this summer at Ken View, Highgate. At the far end a portion of a rockery is noticeable, on the top of which is a good specimen of Linum narbonense, covered with its pretty sky blue flowers. The whole view is looking between the poles of a Rose pergola that runs parallel with the border.

Highgate. C. T.

THE ROSE GARDEN.

NOTES ON NEWER ROSES.—XII.

HYBRID TEAS.

(*Continued from page 589.*)

YVONNE VACHEROT (Soupert et Notting, 1906). This Rose, while purely an exhibitor's flower, appeals to all those who prefer beauty of form to substance or size. I overheard the remarks at a local show of one of the old school of exhibitors (I hope I am not libelling anyone in so styling him, but he exhibited his Roses in the days when they insisted on Roses being big irrespective of almost anything else) when he saw a pretty flower of Yvonne Vacherot that was in the front row of the winning thirty-six: "Call that a Rose! I call it a poor thing." Then he murmured something about Paul Neyron, "Why, we got 'em as big as tea plates!" By so much have our standards altered—Yvonne Vacherot and Paul Neyron!—neither Rose a typical example of either the old Hybrid Perpetual or the new Hybrid Tea; but could you have a greater contrast? The form of Yvonne Vacherot is exquisite—that beautiful shell-like guard petal, the turn of the next petal just leaving its place to bring its inner surface to the sun, the remaining petals so tightly grasped that the pressure seems to have forced them up to a needle point. At its best there are not many Roses of finer—in both senses of the word—shape. Its colour is indistinct porcelain white, suffused pale pink; its size medium rather than large; its growth moderately vigorous. Only the early flowers come large enough for exhibition, which rather points to the fact that it is likely to be good or at its best on maidens.

As there are no "Z's," I believe I have reached the end of the Hybrid Teas—from Albatross to Yvonne Vacherot. It is a varied gallery, something to suit all tastes; and all may pick and choose therein. Yet who can believe that finality or anything approaching it has been reached. They are but the flowers of to-day. Some of them will still be flourishing ten or twenty years hence; but of how many will it then be said the place thereof knows them no more. It is as it should be—the survival of the fittest. Even the less fit will have had its day; and if it has ceased to be, may be remembered possibly as the parent of a nobler child, possibly for something even less than that, but still remembered. *Floreat regina florum.*

TEAS.

One passes on to the Teas, and here we find a class that everyone would like to grow, if they could; it is gradually improving in constitution, possibly owing to its no longer being kept quite pure, the crossing with the Hybrid Tea that has undoubtedly taken place being a help in this respect. But a severe winter will always, I am afraid, play more or less havoc with the Teas. Last year they suffered badly, and if not killed outright, as they were in many cases, were so crippled that they have had this year to devote their energies to wood production rather than to flowers. Consequently, this has not been a Tea year by any means; in fact, I do not think I should be overstating the mark if I were to say there have been no good Teas exhibited throughout the entire season. Mr. Mawley's Analysis is not yet published, but there must be a terrible falling-off in the number of blooms, to say nothing of the quality. One or two Teas stood out as suffering less than their neighbours, Mme. Jules Gravereaux in particular; but the White Mamans and the Cochets of former years were conspicuous by their absence—at any rate, in my own garden and the shows I visited. If this is true of the class, how much truer must it be of the newer varieties among them? So that I feel bound to emphasise again what I said when I commenced these notes—no Rose should be judged on its 1909 record; truly a year of North Pole fame. Good Teas are still scarce, and I find my notes only include some fifteen varieties. Of these barely half can claim to be exhibition flowers.

Freiherr von Marschall (P. Lambert, 1904) seems to be the first in alphabetical order. It has been rather a long time getting recognition, but I think it deserves it, if only for its colour. It may fairly be said to belong to that select class of "red" Teas that can almost be numbered on the fingers of one hand. It is quite a good grower; colour, dark carmine; buds nice shape, opening out into a large flower; rather loose, imbricated form; fragrant. Messrs. F. Cant and Co. had a fine row of it at Colchester that was full of flower when I was there this autumn, and they thought highly of it. I have had two plants of it for the last three years and, without producing anything striking, they have done well.

Harry Kirk (Alex. Dickson and Sons, 1907).—A gold medal Rose of the National Rose Society of a very striking colour, deep sulphur yellow, passing to a lighter shade until it becomes almost white at the edge of the petals. It is the first Rose to have a challenge cup offered for the best stand of nine blooms; this was done at the provincial show of the National Rose Society at Luton, and there were some half-dozen entries, the raisers generously not exhibiting. The blooms exhibited, except, perhaps, some flowers in the winning stand, hardly did justice to the flower or the cup. I have seen it very fine, and it is, I think, the best Rose of its colour, and will make a fine bedder, as it is a good grower, quite first-rate.

Lady Meriel Bathurst (Jefferies and Son, 1908). Quite a pretty little flower, yellow, shaded pink, flowering freely and continuously in large trusses. Was awarded a card of commendation. Should make a useful Rose for table decoration.

Lena (Alex. Dickson and Sons, 1908).—A beautiful button-hole Tea. It is of very pure colour, a bright clear apricot that does not fade to white, as so many of these yellow Roses do. It is a pure Tea, so the growth is not vigorous, but planted closely together should make a very pretty bed.

Lady Wenlock (Bernaix, 1905).—This is a beautiful bedding Tea that should be more grown. It is very free-flowering, at its best in the autumn, and I can recommend it.

Mme. Constant Soupert (Soupert et Notting, 1906).—This is a real good exhibition Tea; the season has been all against it, but it is a good grower. The flowers are large, of good substance, and I consider it the finest yellow exhibition Tea now in commerce. It is already in the first six Teas for exhibition. The plants I had of it, some half-dozen, passed through the winter, so I think it can be considered hardy for a Tea. The texture of the petal is, perhaps, not quite all that could be desired, and it undoubtedly requires heat to open properly, but it is quite indispensable to the exhibitor. It missed the gold medal of the National Rose Society, but it has proved since that it deserved it.

Mme. Pol Varin-Bernier (Soupert et Notting, 1907).—Described in the catalogues as melon yellow. There is something rather out of the common about this Rose. I have only one plant of it, so can say little about it; but I think it worth trying. It has a delicious scent, and though the flowers are not large, they are of good shape and freely produced. Purely a garden Rose.

Mrs. Hubert Taylor (Alex. Dickson and Sons, 1909).—Awarded the gold medal of the National Rose Society; this is likely to be a useful exhibition Tea. Colour, pale shell pink, shading to white; full flowers reminiscent of Mme. Cusin, of which it may be a sport. It is a better grower than that fine old variety; at any rate, at Newtownards, where I have seen it for some years, the raisers, I know, think highly of it.

Mrs. Myles Kennedy (Alex. Dickson and Sons, 1906).—The past season has not suited this Rose. It is a fine grower, but the buds get to a certain stage and stop, with the result that the flowers that are perfect are few and far between. Still, it is indispensable to the exhibitor, and in a more congenial season its behaviour will perhaps be different.

Mrs. Sophia Neate (Bide, 1908).—This, too, must wait for a verdict. So far it has only proved itself not an exhibition Rose.

Molly Sharman Crawford (Alex. Dickson and Sons, 1908).—I can write with more confidence with regard to this Rose, as I have known it for a good long period—seven or eight years, at any rate. The colour is a good white; the flowers are quite up to exhibition standard and it is fragrant. Vigorous for a Tea, it is one of those Roses all exhibitors will have to grow, especially the Tea men. The flowers have come split rather more than usual this season. I mention this, as those growing it for the first time might be disappointed, but I am convinced it is a good Rose and worthy of an extended trial.

Mrs. Stephen Treseder (Treseder, 1903).—Not a new Rose by any means, but one that has got rather overlooked. It is a sport from Anna Olivier, of a distinct pale lemon shade that makes a beautiful button-hole. It is quite free-flowering and should be more grown.

Nita Weldon (Alex. Dickson and Sons, 1909).—I believe this Rose was staged for the gold medal at the same time as Mrs. Arthur Munt. Nita Weldon secured the coveted award and Mrs. Arthur Munt did not, and yet I think the latter will prove the better Rose of the two. How was this? Simply, Nita Weldon was shown in better form on the day and is a Tea. I have not grown this Rose, but I have strong recollections of some very fine flowers of it at Newtownards. It is not, I should say, likely to figure often on the exhibition bench, but it has a charm of its own, and its fragrance will not allow it to be ignored.

Souvenir of Stella Gray (Alex. Dickson and Sons, 1907).—This is a very fine colour and a beautiful button-hole Tea. Colour, deep orange, veined salmon, and other shades, a combination not easily described, but most attractive. I should like to have a big bed of it so as to make sure of always having some of its delightful flowers. It is a medium grower, so the plants can be planted closely.

W. R. Smith (Smith, 1908).—I think very highly of this Rose. The half-dozen plants I had from Messrs. Hugh Dickson of Belfast (who are distributing this Rose in Europe for the raisers, an American firm; so, Mr. Editor, this Rose should not have been included in your recent list of British-raised Roses) did remarkably well this year, and I cut many fine flowers from them. It is quite a good grower, producing a fine large flower at the end of each shoot, but which will sometimes be found to have a split in it; white in colour, with a beautiful pink tint on the outside petal. It has been likened to White Maman Cochet without due reason, as the flowers are quite distinct in colour and shape. I am inclined to say it is quite one of the best Teas of recent introduction, and I should place it high up among the Roses mentioned in these articles on the newer Teas, certainly in the first three. Those growers who have not got it should certainly try it.

Purley. HERBERT E. MOLYNEUX.

SPRAYS OF ORNITHOGALUM NARBONENSE PYRAMIDALE.

PROTECTING ROSES IN WINTER.

As I write a sharp frost is being experienced more or less all over the country, and it will be well to see about what protection we intend to afford our plants. The late growth, especially upon the more vigorous varieties, has ripened with me better than I expected; but many succulent shoots are quite black and frozen through. Here (East Sussex) we do not protect much, but I am convinced we should do it early rather than during midwinter, even if only to assist in the more steady or gradual ripening of the wood, to say nothing of having the necessary material at hand should an extra sharp frost prevail. Over-protection, so as to keep the growth soft, is bad; hit the medium as far as possible. Roses are as hardy as the majority of flowering shrubs, and only need the keenest frost-laden winds warded against. On no account use wet manure or even short litter. When it is most needed it either blows away or is so saturated as to do more harm than good.

The easiest and most simple plan with dwarfs is to draw some of the surrounding soil up to the base of the plants. This acts in two ways—it covers the bottom and most valuable eyes, and also throws off superfluous water that would otherwise stay around the base and do great injury when frozen. Twigs of Spruce, Birch and other shrubs recommend themselves to me more than Bracken or straw. Stuck into the ground these remain in position and are there when most wanted. They break the wind, which is, after all, the worst part of frosty weather, and are easily fixed or removed, while one avoids the littery mess of material drifting about into sheltered corners where it is not wanted. A little Bracken or litter tied among and around the heads of standards is useful, and being partly secured answers its purpose very well. Here, too, I prefer a few twigs at the outside; they bind the whole without shutting out so much air and light. The most fatal part of standard Roses lies where they are budded upon the Briar stock, and I would advise that this tender portion always be covered where protection is practised.

Plants on warm walls need as much protection as those in the open. We generally place our more tender varieties in such positions, and should not lose sight of this fact. Then, again, the sudden thawing of frozen growth is very injurious, and upon warm, sunny walls this frequently takes place daily during a spell of sharp weather. If one possesses any choice Roses in such a position, they can be protected quickly and most efficiently by nailing a mat or some coarse tiffany at the top of the plants and allowing this to fall over them. With the nails ready fixed it is very little trouble to hang up the mat when required. Most of us know it is wisest to place plants in a cool cellar, or bury them in soil if possible, when they are received during frost; even if the plants are frozen they do not come to much harm if treated thus without unpacking. It is altogether a mistaken idea to thaw them suddenly, and this is what I would try to avoid with plants upon a warm wall.

Uckfield. A. PIPER.

GARDENING FOR BEGINNERS.

INCREASING GOOSEBERRIES AND CURRANTS.

GARDEN WORK WEEK BY WEEK.

GREENHOUSES AND FRAMES.—At this time of the year cold, frosty weather is usually experienced, and many beginners in gardening who own a cold greenhouse are sorely puzzled as to the best means of keeping frost at bay. Usually resource is had to an oil stove of some kind, and time was when this usually turned out to be a worse evil than the frost. Thanks to the efforts of one or two of our leading stove-makers, whose goods are frequently advertised in THE GARDEN, there are now several oil stoves to be obtained which, if properly attended to and the best oil only is used, answer the purpose for which they are intended admirably. In addition to using the best oil obtainable, it is essential that the burner and wick be cleaned daily. It is a great mistake, now that properly constructed stoves can be obtained, to use ordinary cooking oil stoves for heating greenhouses or frames.

Fruit Garden.—Where it is intended to plant new Vines, the work should now be proceeded with, as the sooner they are in position the better. Assuming that the border has been properly prepared, with, of course, perfect drainage, the actual work of planting will not entail a great amount of time or work. Usually young Vines are supplied by nurserymen in pots, and to get them out of these it may be necessary to smash the pots, as it often happens that the mass of roots becomes firmly wedged therein. After taking out a hole 2 feet in diameter and about 6 inches deep, shake all the soil from the roots of the Vine, and carefully disentangle them so that they can be laid out their full length. Then place the Vine in the hole so that the rod is well away from the hot-water pipes, and gradually fill in the hole with some of the finest soil from the border, taking care to let each root lie at nearly a right angle to the rod. After the hole is filled in and well firmed, the latter being done as the filling in proceeds, the rod should be pruned back to a plump bud situated about 18 inches from the base, and then loosely tied up out of the way. Firm tying must be avoided until the soil in the border has had ample time to settle.

Flower Garden.—During frosty weather work in this department will be practically at a standstill, and at such time advantage should be taken of the slack period to renew any labels that need it. In the case of the ordinary wooden labels, which are still used chiefly for border plants, they should be purchased unpainted. When required for use give the smooth writing surface a thin coat of good white paint, rubbing it well into the wood with a piece of soft rag. Before this dries the name of the plant and any other particulars should be written. If this course is adopted the writing will last as long as the label, and an ordinary good lead pencil may be used for the purpose. All stakes should also be overhauled, the decayed ends cut away, resharpened and painted a dull green colour; after this is dry, tie them neatly into bundles of two or three dozen to each, according to their length.

Vegetable Garden.—Where a warm house or frame is available, the forcing of Seakale may now be commenced. Lift some of the strongest crowns, trim off all the small side roots and retain them for making into cuttings, and then plant the crowns from 4 inches to 6 inches apart in a deep box, using ordinary soil containing a good amount of sand and leaf-soil, and placing the crowns so that their tops are just visible through the surface. Then give a good watering, and after a few hours cover the box so as to entirely exclude light, and stand in a warm place. Where plenty of roots are available, repeat the process at intervals of ten days or a fortnight. The side roots may be cut into lengths 6 inches long, making the top cut level and the bottom one sloping, and tied into small bundles and laid in sand outdoors, there to remain until early spring, when they can be planted to provide crowns for forcing another winter. Rhubarb may be treated in a similar manner, but in this case it will not be necessary or desirable to trim off the side roots of the clumps, but rather to lift them with as little disturbance as possible and leave them exposed to the frost for a few days. Do not omit to dig and trench every vacant foot of ground whenever the opportunity occurs, as nothing but good can result from such work. An excellent substitute for natural manure at this season is Wakeley's Patent Hop Manure, which I have now used for several years with excellent results. H.

1.—BLACK CURRANT CUTTINGS. THAT ON THE LEFT IS A SHOOT AS CUT FROM THE BUSH AND ON THE RIGHT IT IS SHOWN PREPARED FOR PLANTING. NOTE THAT THE LOWER BUDS HAVE NOT BEEN REMOVED.

2.—RED CURRANT CUTTINGS. ON THE LEFT IS A SHOOT AS CUT FROM THE BUSH AND ON THE RIGHT PREPARED FOR PLANTING. NOTE THAT THE LOWER BUDS HAVE BEEN REMOVED.

3.—GOOSEBERRY CUTTINGS TREATED IN A SIMILAR MANNER. NOTE THAT THE BUDS AND SPINES HAVE BEEN REMOVED FROM THE PREPARED CUTTING ON THE RIGHT.

PROPAGATING CURRANTS AND GOOSEBERRIES.

THE cold, dull days of winter remind us of the season when pruning of a somewhat drastic nature has to be done with Currants and Gooseberries. Only so far as the pruning provides us with the necessary material for propagating purposes are we really interested at this period in this important operation. We are glad to take advantage of the opportunity which winter pruning affords of acquiring the necessary cuttings for perpetuating the different stocks, and by these means provide ourselves with a batch of young trees to take the place of the older ones as they lose their vigour, or as new plantations are required from time to time. When the weather is free from frosts, propagation by cuttings may be done with the sure prospect of success, and at any time before the sap begins to rise in the early spring the bushes may be pruned and thus provide us with the necessary shoots for this purpose.

We will first of all consider the Black Currant, as the cuttings of this bush fruit need to be treated in quite different fashion to those of Red and White Currants. Cuttings should be made from clean, healthy shoots of the present year's growth, and should be from 12 inches to 15 inches in length. There will be no difficulty in procuring shoots of this character and in sufficient quantity to make up useful little nursery beds. A sharp knife is necessary for "making" the cuttings, as each one must be cut through immediately below a joint, and the cut should be a

clean one. It is from this point that the roots are emitted, and a jagged or torn cut or an abrasion of the bark may cause the cutting to fail. To complete the preparation of a Black Currant cutting, the bud at the point of the shoot should be removed, as this has the effect of inducing growths to develop at the base, which is essential in trees of this hardy fruit. The whole of the buds are retained on cuttings of the Black Currant, as the lower buds make strong basal shoots that spring up and take the place of the older growths as the trees develop. We should remember that Black Currants fruit on the new growths. To make the case quite clear, two cuttings of the Black Currant are shown in Fig. 1. That on the left is a cutting just as it is detached from the bush, and that on the right portrays the horizontal cut at its base, just below a joint, and the bud at the point of the shoot removed.

In the case of Red and White Currants the treatment of the cuttings differs very materially from that accorded to those of their Black rival. Clean, healthy shoots are just as necessary, and their length should be much the same. They must, however, be prepared in different fashion. Basal shoots in Red and White Currants must be guarded against at all costs, as they rob the bushes of much-needed vigour. For this reason each cutting as it is prepared should have the horizontal cut made at its base, just below a joint; the bud should be cut out of the point of the shoot, the three or four buds immediately below this should be retained, and all other buds below those retained should be rubbed out. The removal of the lower buds will prevent the development of sucker growths. To simplify these points for the beginner, two cuttings of Red or White Currant are shown in Fig. 2. On the left there is represented a strong, clean, healthy shoot just as it was cut from the old bush when the pruning was done. Note the buds as they are represented at intervals up the stem. On the right there is shown a cutting properly prepared and ready for insertion in the nursery bed. In this case, it will be observed, the bud at the apex of the cutting has been removed, and immediately below this three or four buds have been retained. All buds below this latter point have been rubbed out and a clean cut below a joint made at the base to complete the operation.

Gooseberry cuttings should be prepared in much the same way as that recommended for Red and White Currants. The length of the cuttings should be about 1 foot or rather more, and to complete their preparation a cut should be made cleanly across just below the joint at their base. Not only should the lower buds be removed, but the thorns should be shaved off also. To make these points quite clear, an unprepared and a prepared Gooseberry cutting are shown in Fig. 3. On the left is seen a promising shoot of the past season's development with thorns and buds intact, just as it was severed from the bush. On the right the thorns and eyes have been removed from the lower part of the shoot, the bud at the apex also removed, and the necessary clean cut at the base to complete the operation.

Our next concern is the preparation of the nursery bed and the actual insertion of the cuttings. Select, if possible, a fairly open position of the garden where the soil has been well worked and where no manure has been recently dug in. No better quarters could be afforded than those where the ground has been treated liberally with manure for the previous crop. Fork over and break up the surface soil, raking over subsequently to obtain a satisfactory finish. A trench not more than 6 inches deep should be cut with a spade and the cuttings inserted in this about 8 inches to 1 foot apart, observing a distance between the rows of 1 foot also. By these means the cuttings can be inserted one-third to a half of their length deep. See that the cuttings are inserted in an upright position and take special pains to see that the soil is made firm at their base. To ensure this being done satisfactorily, the cuttings should be made firm by treading in the soil as the rows progress. In heavy and retentive soils a layer of sand should be placed at the base of the cuttings. A small nursery bed of cuttings is shown in Fig. 4. Here there may be seen a row of Gooseberry cuttings on the left, the beginning of a row of Black Currants in the middle row, and a row of Red or White Currants on the right, showing the small trench taken out and the method of adjusting the cuttings in position. D. B. C.

HOW TO PROPAGATE EVERGREENS FROM CUTTINGS.

In every garden where evergreen shrubs are grown there are some specimens that get bare and unsightly near the base; and though, in certain instances, cutting back will cause new shoots to grow which will eventually make the shrub more bushy, few are as satisfactory as nice young plants.

Propagation by Cuttings.—Various kinds of evergreen shrubs, such as Euonymuses, Aucubas, Veronicas, Laurels, Laurustinuses, &c., are all easily propagated by the insertion of cuttings. The Euonymus cuttings may be inserted in a cool frame, which will afford them some protection against the severe weather; but, failing an available frame, put the cuttings in an outside border which is suitable for the majority of shrubs. A border with a north or north-east aspect is the best for the cuttings to be rooted in. If the weeds are all carefully cleared off the surface, there will be no need to dig up the soil; in fact, it is much wiser not to dig the border. For all large-leaved kinds of shrubs, such as the Aucuba, a space of quite 18 inches must be left between the rows of inserted cuttings. Open a trench with a spade about 6 inches

4.—PREPARED CUTTINGS OF GOOSEBERRIES AND CURRANTS PLANTED IN A NURSERY BED.

deep and having one perpendicular side, against which the cuttings must be fixed with the base of each resting in a thin layer of coarse sand. Put the large-leaved kinds 10 inches apart in the rows and the smaller-leaved ones 6 inches apart. The cuttings should be about 9 inches long, except those of smaller kinds of shrubs, which must be 7 inches long. In preparing the cuttings, sever them below a joint and cut off the lower leaves. SHAMROCK.

THE TOWN GARDEN.

STOCKS OF BEDDING-OUT PLANTS.—This is the most trying time of the whole of the winter season for the stocks of bedding-out plants. Fog and frost combined do much damage to the tender plants unless the latter can be duly protected by a good heating apparatus; then the cultivator need not be alarmed, as he can easily combat the very worst weather. Those persons, however, who have to depend upon glass porches, dwelling-room windows or, at best, an indifferently heated conservatory or greenhouse, must be on the alert constantly to prevent frosts and excessive moisture from damaging the plants. Newly rooted cuttings of Zonal Pelargoniums, Heliotrope, Verbenas, Lobelias and Coleuses must be very carefully examined and all fading leaves removed at once. Even one rotting leaf, if allowed to remain in touch with a sound stem for several days, will so contaminate the latter that it will soon decay and be lost. So we see the great importance of keeping all plants free from fading leaves. Then there is the question of ventilation. It is quite a mistake to allow a glass structure to be kept closed in both fine and unfavourable weather. Whenever an opportunity occurs the ventilators must be opened, and if the pipes are warmed at the same time it is wonderful how soon the interior of the house will become dry. I may also say here that all lovers of winter-flowering Zonal Pelargoniums must treat their plants in a similar way; then there will be fewer decaying trusses of blooms. Water should never be given too frequently nor in excess. There is not as much evaporation from the soil in winter-time as in the summer, neither do the stems and leaves of the plants dry as quickly, and so water must be applied in such quantity as to maintain the roots in a fresh, healthy condition; then the plants will grow into fine specimens in due season. When water is needed, sufficient must be given to thoroughly saturate all the soil in the pot or box, as the case may be; mere surface waterings would do harm—they often result in the premature and rapid decay of basal leaves, and sometimes of the whole plant.

PANSIES.—In gardens where the soil is quite light and naturally well drained, Pansy plants will survive very severe weather nicely and bloom freely the following spring; but in clayey soils the case is different. A friend of mine, who is a horticultural journalist of the first rank and an enthusiastic gardener, too, told me, when I recently visited him, that he should winter his Pansy plants in a cool frame owing to his soil being of a close, heavy nature. My own plants are growing in a much lighter soil, but I intend to afford them some temporary protection during severe spells of weather. It is only at such times that any protection is necessary. Undue covering up of the plants would certainly weaken them; at all times, except when there is severe frost, plants growing in frames must be exposed, the glass lights being removed altogether. The same kind of treatment must be meted out to Antirrhinums, Pentstemons and similar kinds of border plants recently propagated from cuttings; then they will not suffer from checks.

GAPS IN BORDERS.—Cultivators who have, several weeks ago, finished the work of filling beds with spring-flowering subjects must now closely examine all such borders. Probably some bulbs may have been destroyed; then it is advisable to put in more sound bulbs of the same kinds. Perhaps a few plants used to form a groundwork to bulbs and tall-growing subjects have died. In such instances the gaps should be filled; and especially must all gaps be made good in edgings, as when the plants are flowering in spring such openings appear so very conspicuous. Even when gaps are filled at the present time it is a wise plan to keep some stock plants until spring, so as to be sure of them if required. AVON.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

BEDDING CALCEOLARIAS, Penstemons, Violas and other somewhat hardy plants wintered in cold frames will need all the air possible in mild weather; but when frosty and the wind is keen, keep the lights drawn over them. Alternantheras, Iresines, Coleuses and similar plants should be given a warm position in the stove and near to the light, to prevent weak growth. Do not keep the plants too wet, but as soon as they show signs of fresh growth give more tepid water. Examine the bulbs of Begonias, Dahlias and Gladioli, and if any are rotten remove them at once to prevent others from going bad.

Laurels.—When the weather is unfavourable for planting, much other work may be done. Laurels which have become very bare at the bottom may be cut down to within a foot or less of the ground level. Although for a short period they may look bare, in a season or two this bareness will be replaced with a beautiful lot of healthy, robust growths, and a very pleasing effect will be the result. All leaves may be raked out from among other shrubs, and the surface of the soil forked over. Top-dress choice specimen trees with suitable compost. These are important matters which must not be overlooked where there are a quantity of choice specimen shrubs and trees. Collect quantities of leaves for leaf-mould, which, when well rotted, will be found exceptionally useful.

HARDY FRUITS.

Pear Trees will have shed their leaves and may now be pruned. Keep the centres of bush-trained specimens well open. Spur the side shoots back to a couple of eyes and shorten the leaders more or less according to the growth and height required. Those about to plant cordons should see that the borders are perfectly prepared. If the soil is heavy and deep, I would advise those trees worked on a surface-rooting stock; but on a light land use the deeper-rooting stocks, and the same remarks apply to Apples. When trained as horizontal cordons by the side of paths they (both Apples and Pears) have a pleasing effect, and if lifted occasionally (should the wood grow too strong) fruit freely. I have seen some of the finest exhibition fruits taken from cordons.

KITCHEN GARDEN.

When the weather is suitable push forward the trenching and digging of vacant plots, regulating the manure according to the soil and crop it is intended to bear next year, it being both an error and a waste to use manure indiscriminately without first considering the future crop. For Potatoes, I prefer manuring rather heavily for some previous crop, and very sparingly, if at all, at the time of planting the Potatoes, believing that the tubers are superior in quality and less liable to be attacked by disease. Lift Rhubarb for forcing, placing the roots in some dark place where the temperature stands at 55°. Seakale may now be forced with ease. Roots with well-ripened crowns placed in the Mushroom-house will soon grow and bleach perfectly white. Gather leaves and manure, to be well mixed to form beds for forcing the Seakale under pots. A gentle heat will suffice to start the crowns into growth. Take up plenty of Horseradish in readiness should the weather prove severe. Protect Celery with a little Fern or long litter, mulch Globe Artichokes with strawy litter, and protect Beet and other root crops.

H. MARKHAM.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

INDOOR FRUIT DEPARTMENT.

STOVE PLANTS.—The annual winter examination and cleansing of these should now be carried out. The practice of top-dressing at this season is not approved universally, but its beneficial effects upon plant-life in general, and more especially upon those much restricted at the roots, is little short of marvellous. The necessary vaporising and after-sponging of the foliage should precede the removal of the surface soil, which should be done to a depth commensurate with the size of the pots or other receptacles and the condition of the root system. By the aid of a pointed stick the surface may be raised and removed until the roots are laid bare, when a compost of fibrous loam, peat and sand, well mixed, should be at hand ready for replenishment. Patent manure, at the rate of ½lb. to every peck of the above compost, may be added if thought necessary.

Fern-House.—The last-mentioned treatment may be followed here, previously cutting away all damaged or decaying fronds. Though very few species are improved by getting dust dry, considerably less water should now be given, which will result in a hardening of the fronds, and, combined with somewhat reduced temperatures, will tend to a period of rest.

THE GREENHOUSE.

Primulas, Cinerarias and Cyclamen will, from now onwards, make a display of bloom. Where possible, give each plant sufficient space for development and encourage growth by applying weak liquid manure occasionally. Succession plants will need much care, as, if kept too warm, they will advance too rapidly and the leaf-stalks become unduly attenuated.

Chrysanthemums, being at their best, should be frequently inspected, and if green-fly is discovered, the vaporising outfit should at once be requisitioned. It is of much importance to see that all the plants are correct to name, otherwise much annoyance may be caused another year owing to this mischance. Cuttings may now be taken and inserted as they become fit, though this work may well be spread over several weeks; but as some varieties are chary in producing cuttings, opportunities of obtaining these should not be lost. A compost of fresh loam and leaf-soil in equal parts and sufficient sand to make it friable answers well. A small frame placed within a house from which frost can be readily excluded is better than an excess of heat.

PLANTS FOR FORCING.

Azaleas, Rhododendrons, Kalmias and others very similar that are expected to flower in early spring should now be removed from the outside plunge-bed to a position under glass, or if planted out, potting should be done without delay.

THE KITCHEN GARDEN.

Trenching.—It goes without saying that all cropped ground must be dug once a year at least, but in addition an effort should be made to deeply trench a portion yearly. After removing the customary 3 feet space of soil from one end of the plot selected to the other, most of the season's accumulation of decayed or decaying rubbish may be placed thereon, together with a fair amount of manure. The interment of this may raise the ground at first inordinately high, but by the next cropping season it will be scarcely noticeable. Commencing within the trench mentioned, thoroughly break up the subtratum as deeply as possible previous to putting in the vegetable refuse with a layer of manure above it. Upon this turn the good soil from the next space and dig the lowest spit as before, but still keep it below. By covering all bare ground with *débris* on the approach of frost, useful and pleasant work may be carried on when most other outside operations are perforce at a standstill.

JAMES DAY.
(Gardener to Sir Malcolm M'Eacharn.)
Galloway House, Garlieston, Wigtownshire.

BOOKS.

The Book of the Sweet Pea.*—The past two years have witnessed the publication of several books on the Sweet Pea, but, apparently, there is a demand for them all, and this latest addition is certainly worthy of a place on the bookshelf of all lovers of this charming annual flower. The author deals with the subject in a very thorough and generally pleasant manner, although the phraseology is sometimes of a redundant character. All aspects of culture are fully gone into, and we note with pleasure that in dealing with propagation by cuttings the author advises care to be taken, a point that should be emphasised. The chapter on the history and evolution of the Sweet Pea is an exceedingly interesting one, and those devoted to the exhibition of the flowers, and also their use for table and other decorations, are full of valuable information. Pests and diseases, too, are dealt with fully, and the advice given on these matters is of a very useful character. The culture of Sweet Peas under glass for early flowers is a chapter that will appeal to many, this system of growing these flowers being as yet but little understood. There are quite a number of illustrations, but the majority of these are poor and really of little value or interest. They would have been rendered more useful had the colour been included in the title, as is done in a few cases. Then, again, we do not see the necessity for illustrating sprays of the variety Evelyn Hemus in two places, viz., facing pages 12 and 94. The vase of blooms supposed to be arranged for exhibition would have been better omitted. In the raising of new Sweet Peas, which the author deals with in a practical and intelligent manner, we think fuller information should have been given on the fixing of new sorts. However, the above-mentioned defects are not serious, and many could be remedied in a second edition, this being the main reason for drawing attention to them here. The book is one to buy and read, and even the specialist will, we think, find something of interest in its pages.

The Flowers and Gardens of Madeira.†—This is a charming book worthy to rank with "The Flowers and Gardens of Japan" by the same author, and the coloured illustrations are not only instructive, but gems of their kind. They are well reproduced, and without detracting from the good work of the author are the chief feature. The plates depicting "Wistaria, Santa Luzia," "A Drinking Fountain," "Almond Blossom" and "Azaleas in a Portuguese Garden" are delightful, but not one illustration is really less worthy of praise than those mentioned. Madeira, as those are aware who have visited the lovely island, is an island of flowers, and one gains a deep impression of its beauty and the luxuriance and variety of its vegetation from the author's descriptions. The following extract shows the character of the book: "Any feeling of disappointment that the traveller may have experienced from his first cursory glance at the island must surely be quickly dispelled on landing, especially if this should be in the month of January, when, having left the snows and frosts of Europe behind, after travelling for four days he is basking in the almost perpetual sunshine of so-called winter in Madeira. Lovers of flowers—and to those I most recommend a visit to the island—will find fresh beauties at every turn of the street. The gorgeous-coloured creepers seem to have taken possession everywhere. Hanging over every wall where their presence is permitted will come tumbling some great mass of creeper, be it the orange Bignonia venustus, whose clusters of surely the most brilliant orange-coloured flower

* "The Book of the Sweet Pea," by D. B. Crane. Mr. John Lane, The Bodley Head, Vigo Street, London, W. Price 2s. 6d. net.

† "The Flowers and Gardens of Madeira." Painted by Ella du Cane; described by Florence du Cane. A. and C. Black, London. Price 7s. 6d. net.

that grows completely smother the foliage; or the scarlet, purple, or lilac Bougainvillea, whose splendour will take one's breath away, with its dazzling mass of blossoms. The great white trumpets of the Datura, combined possibly with the flaunting red Poinsettia blossoms, will quickly show the fresh arrival the bewildering variety of the vegetation—so much so that I cannot fail to sympathise with Mr. Bowdick, who, writing on the subject, says: 'The enchanting landscape which presents itself flatters the botanist at the first view with a rich harvest, and not until he begins to work in earnest does he foresee the labours of his task. What can be more delightful than to see the Banana and the Violet on the same bank, and the Melia Azedarach, with its shining leaves, raising its summit as high as that of its neighbour, the Populus alba?" "The Flowers and Gardens of Madeira" should be in every library.

English Leadwork.*—In giving a full and careful account of the English craftsman's various and successive modes of dealing with lead, Mr. Weaver rightly includes fonts and steeples, roofs and rain-water-heads. But it is the section that deals with such garden adornments as statues, vases and cisterns that will attract the reader of THE GARDEN, and it is by way of whetting his appetite for the solid yet skilfully prepared and appetisingly served repast which he will find in Chapters IV., VIII., IX. and X. that we propose to say a few words on the subject. Mr. Weaver is right in pointing out that lead, owing to its own texture and to the colour our climate gives to it, assimilates excellently with the general tone and character of our gardens. "It has a gentle unobtrusive quality which harmonises with the domestic air of gardens." It therefore became very popular when formal gardens were in the minds of Englishmen and when there was money in their pockets for an extensive indulgence in this splendid hobby. The large use of lead for this purpose arose under Charles II., and decayed under George II., while the reign of Queen Anne was the heyday of the art. The Landscape School played sad havoc with all that had been done by the Formalists, and the denizens of Olympus, from Jupiter to Cupid, crowded the melting-pots. Yet, very happily, many fair specimens of the garden lead-worker's craft survive, some even in their original sites and with little-altered setting. Such is the case at Harrowden, where three out of four fine heroic groups survive. The fourth pedestal is vacant. Tradition states that its glorious burden was removed as fit material for roof mending! These may have been the work of Peter Scheemakers, one of the many foreign sculptors who found a rich field for their art in England. Another was John van Nost, who in 1706 cast the lavishly ornamented urn at Melbourne, whose great bulk gives such distinction to the meeting point of the "crow's foot" alleys. Statues by him richly adorn this remarkable surviving example of the garden art of Henry Wise, and here, too, we find the kneeling figures of a "blackamoor" and of an Indian. Both were popular subjects under Queen Anne, especially the blackamoor, who was represented in flesh and blood in the household of every eminent lady of fashion. At Melbourne these two figures support vases, but their burden is more often a sundial, as it is at Glemham. Glemham for a while was rich in leadwork, for here stood not only a "Winter" and a "Pan," but also exceedingly fine portrait statues of Prince Eugene and of the Duke of Marlborough—dating, no doubt, from the day of the battle of Blenheim—bought at a sale at Campsey Ash. Alas! they are again on the move, a fate which only the other day befel the leaden ornaments of Enfield Old Park. The parish of Enfield was notable for its good houses and stately gardens in Defoe's time, but the collection of objects at Old Park was made in the nineteenth century. Their recent dispersal attracted much attention, as will the destiny of the Flying Mercury, of which so fine a representation is given as the frontispiece of Mr. Weaver's book. It is at Holme Lacy, but is no doubt one of the lots in the forthcoming sale. The quick changes and unstable ownerships of to-day are very forcibly brought to our minds by these numerous transferences since the quite recent day when Mr. Weaver revised his proofs. This transitoriness even of ponderous lead makes the book of great value as a record of the *locale* of lead objects in 1909, as well as of a history of the art of lead-working. In both respects it may be relied on, for it is laboriously compiled and correctly arranged. It shows also intelligent appreciation and just criticism, and all who take an interest in leadwork—modern as well as ancient—as garden adornments will derive sure knowledge from its pages.—T.

* "English Leadwork," by L. Weaver, F.S.A. Batsford, 1909.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR *of* THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Propagating Dahlias (*Odersfelt*).—Without a greenhouse or frame you can do little so far as increasing the stock of these flowers is concerned, your only remaining way being by division of the roots during winter or spring. If, however, you purchased a few bell-glasses, say of a size to fit inside a pot of 8 inches diameter, you might in spring try rooting cuttings of the Dahlias in a window by first inserting them in a pot 5 inches across and plunging this within the larger pot named, using sand to fill up the interstices and covering them with the bell-glasses. The rooting is not impossible by these means, but it may be found rather slow, and only heel cuttings would be likely to do much good. You may keep the roots during the winter in any shed, outhouse or cellar from which frost is excluded. When the frost has cut down the plants the latter should be lifted and the bulk of the soil removed, the stools being presently stored away. Many roots are kept in sheds, lofts, coal-cellars and similar places, and so long as frost does not reach them all will be well. During the winter the soil may be shaken from the roots, and you would then be able to see whether division was possible. This operation or its successful performance will depend to some extent on the size of the plants, and not a little upon the operator.

Gentiana acaulis blooming in autumn (*L. B.*).—Although not common, the flowering of Gentiana acaulis in autumn is not rare, and we have seen it do so several times, especially in a dull autumn and in wet districts. Probably the character of the season has been responsible for this.

Winter Violets in frames (*M. C. E. W.*).—We have not grown Violet plants for sale, only for private supply. As regards the number of plants it will take to fill your frame, this will depend entirely on the size of the plants. We suggest that the best thing for you to do in ordering your plants would be to give the size of your frame to the person from whom your plants are purchased.

THE GREENHOUSE.

Heating two greenhouses (*X. Y. Z.*).—With such a limited amount of piping and such a small boiler you cannot hope to keep out severe frosts without a good deal of covering, and even then, should the weather be very severe, you might not succeed. The first house will need a 4-inch flow and return pipe along the front in addition to the one already there, and the second should at least have all 4-inch pipes. Even then it is more than probable that the boiler is far too small, and we think that for the successful culture of the plants mentioned the heating apparatus altogether requires remodelling. A great drawback to a house with an insufficient amount of piping is that in severe weather it is necessary (in order to keep out the frost) to make the pipes too hot for the welfare of the plants in the house.

Stephanotis floribunda fruiting (*S. B.*).—It is decidedly unusual for Stephanotis floribunda to bear fruit, yet, at the same time, it cannot be regarded as a rare occurrence. We have, however, met with it several times. If you have "Nicholson's Dictionary of Gardening" you will find there an illustration of one of the fruits. When the fruit is ripe it will split and disclose the seeds with their silky appendages. The Stephanotis belongs to a very poisonous family, namely, Asclepiadeæ, so do not be tempted to taste it. Seeds have been ripened and plants raised therefrom, but in the instances that have come under our notice the results were not sufficient to pay for the trouble, as seedlings take a much longer time to flower than do plants raised from cuttings, which will root readily. Again, one may reasonably expect a certain amount of variation in the case of plants raised from seed; and though there is just the possibility of raising an improved form, the probability is that the progeny will be inferior to the best garden kinds such as the Elvaston Castle variety.

Name and treatment of plant (*H. M. M.*).—The name of the enclosed flower is Crinum Moorei. The flowers vary somewhat in colour, that sent by you being a particularly good pink form. This Crinum sometimes produces offsets by which it can be increased, or, if the plant is kept in a greenhouse and the flowers fertilised with their own pollen, some of them will probably produce seeds, which must be sown as soon as they are ripe. The seeds of this Crinum are, when full grown, as large as a small Chestnut.

Verbena Miss Willmott (*E. E. F.*).—The variety of Verbena alluded to by you does not produce seed; hence the greater part are propagated from old plants kept over the winter and put into heat early in the year. These soon push out a number of new shoots, which, taken off as cuttings while quite soft, will root in a few days. In many districts, however, Verbenas winter badly; therefore we think your better way will be to obtain young plants when the bedding season comes round. Any nurserymen who make a speciality of bedding plants would be able to supply them.

Plants for hanging baskets (*E. M. L.*).—An exceedingly difficult question to answer, as the climatic conditions in South Africa are widely different from those experienced in this country. If properly planted and due attention is given, Maiden-hair Ferns will keep for years in good condition when grown in hanging baskets; but as yours were taken from the forest, the check of removal was probably too great for them, and they ultimately perished. As we know nothing of the conditions under which your hanging baskets are situated, we can only give you a few hints applicable to this country. In the first place, the basket must be effectually lined with flaky moss, so that no soil, however fine, can escape therefrom. The compost selected should be of a fairly fibrous nature, say, a mixture of turfy loam and peat or leaf-mould with a little sand. The subjects selected should be planted at such a depth that the upper parts of the balls of earth are below the rim of the basket. This will facilitate the watering, which must be thoroughly and regularly done. In this country hanging baskets are often filled with plants suitable for outdoor decoration on verandahs, &c., during the summer; while another class of plants is needed for those baskets which are to be kept in the greenhouse. For outdoor culture in the summer the subjects generally employed are Ivy-leaved Pelargoniums, Fuchsias, Petunias, Trapæolums of the lobbianum section, Lobelia tenuior and drooping Begonias; while in the greenhouse may, of flowering plants, be grown Achimenes, Oxalis Bowiei, Alonsoa incisifolia and Lachenalias; of foliage plants Ferns of different kinds, especially Maiden-hairs, Davallias of different sorts, Nephrolepis in variety, particularly some of the newer plumose forms, and the loose growing kinds of Pteris. Some of the forms of Selaginella are also very pretty grown in this way, while a very fine basket plant is Asparagus Sprengerii. That delightfu

little trailing Grass known in gardens as Panicum variegatum is seen at its best under these conditions.

Glazing a greenhouse (*D. Allan*).—In glazing the sides and ends of a greenhouse the glass may be butted instead of overlapping; indeed, this is the method generally employed, as it is neater in every way and equally effectual. Of course, it is very necessary that the glass be cut quite true, so that the squares butt closely together. We do not know the glass to which you refer, but ordinary 21oz. glass is very suitable for greenhouses.

Poinsettia leaves turning yellow (*B. J. G.*).—The Poinsettias are undoubtedly suffering from a severe check of some kind, but what that is we are, of course, unable to say. If the plants have been grown in frames during the summer, as is often done, they may have been left out too long and got a chill. Such a check might arise from cold draughts, drought, an excess of moisture or too cold a structure. The temperatures given by you are very suitable; but does 50° represent the very lowest night temperature? If not, a low night temperature may be at fault. An occasional dose of weak liquid manure is very beneficial in the case of the Poinsettia.

Treatment of Chironia ixifera (*R. A. L.*).—In order to flower Chironia ixifera successfully it needs much the same treatment as Heaths and Epacrises; that is to say, it should be grown in the greenhouse during the spring and early summer, then, towards the latter part of the summer, it may be stood in a frame or out of doors in order to ripen the new growth and assist in the formation of flower-buds. Lotus peliorhynchus requires full exposure to the sun to induce it to flower well. We have seen it planted out during the summer on a sunny rockwork, where it flowered profusely. The long, rambling shoots of this Lotus may be trained near the glass in the sunny part of the greenhouse, or it may be grown in a suspended basket or stood on a shelf or some elevated position and the flexible shoots allowed to depend therefrom at will.

MISCELLANEOUS.

Origin of Rose William Allen Richardson (*H. R. W.*).—This Rose was dedicated by its raiser, M. Ducher, to a wealthy American amateur; hence its English sound. The original Carnation Souvenir de la Malmaison was given this name in memory of one of the castles of the Empress Josephine, which was known as La Malmaison. There is now quite a family of Malmaison Carnations, all springing from the original blush form.

Lawn manure and vegetable culture (*W. E. M.*).—A good lawn manure to apply now to wash in during the winter is basic slag, dressed on at the rate of 6lb. per rod area. It dissolves slowly, therefore should be applied early. Then in March add a dressing of sulphate of ammonia, 3lb. per rod area, finely crushed. This washes in and dissolves quickly. Such dressings should do your lawn good. You may, if preferred, dress it with Native Guano (dried sewage sludge), ground fine. This costs about 5s. per cwt. and should be applied at the rate of about 25lb. per rod area. This soon washes in also. You may give one dressing one year and the other in a second year; but lawns on poor soil need to be well manured yearly. If you want a large book on vegetables you should get "Vegetables for Home and Exhibition," by E. Beckett, F.R.H.S., price 5s., published by Simpkin, Marshall, Hamilton and Co., London. If a cheap book will suit you, then get "Vegetable Culture," by A. Dean, F.R.H.S., price 1s., published by Macmillan and Co., London. Any bookseller should be able to get these for you.

Rust on Grapes (*Grapes*).—Rust on Grapes is one of those mysterious Vine diseases of which no one as yet has been able to discover the real cause. It is a fungoid growth, like the rust on Wheat, and it can be killed, as mildew can be killed, by the application of sulphur, but its marks cannot be obliterated. From our experience of its attacks we are convinced that the most frequent cause of its presence is to be found in injudicious ventilation in spring, when the wind is cold and the young berries tender and sensitive. We hold that no front air should be given while the weather is cold in spring, not even when the sun shines strongly. It is quite possible to keep the temperature low enough by opening the top ventilators alone.

Berberis Darwinii as a hedge plant (*S. M. C.*).—Berberis Darwinii is one of the most desirable of evergreen flowering shrubs suitable for a hedge, and as you speak of yours as supposed to be nearly evergreen, we are inclined to question whether the plants you have are really Berberis Darwinii. If so, the planting must be greatly at fault, or the Lime trees referred to in your letter so rob the ground that the Barberries are practically starved. If you mix in some plants of Sweet Briar, you cannot expect them to do much unless the hedge is replanted. The only suggestion we can make is to take up the plants of Berberis of which your hedge is composed and thoroughly trench the ground two spits deep, incorporating some manure with the soil. At the same time, however willing we are to assist our readers, a question such as yours can be answered in a more satisfactory manner by a personal inspection, so that we should advise you to get a practical person in your neighbourhood to look at the hedge and pass his opinion thereon.

Names of fruit.—*G. Boyd.*—Cornish Aromatic.——*Combe Hill.*—Apple Hoary Morning.——*J. F. L.*—1, Golden Noble; 2, Foster's Seedling; 3, Cox's Orange Pippin; 4, Rosemary Russet; 5, Boston Russet.——*J. Merrick.*—Pear not recognised.

Names of plants.—*G. Boyd.*—Gomphrena globosa.——*A. E. Burge.*—1, Juniperus virginiana; 2, Thuya orientalis variety pendula; 3, Picea Morinda; 4, Cupressus macrocarpa lutea.——*J. Merrick.*—1, Aspidium capense; 2, cannot recognise; 3, Ceropegia Woodii.——*A. K. Carnarvon.*—Calceolaria Pavonii.

SOCIETIES.

THE HORTICULTURAL CLUB.

"CANADA OF TO-DAY."

ON Tuesday, the 23rd ult., at the Hotel Windsor, after the usual monthly dinner of this club, at which Mr. C. E. Shea presided, Mr. Joseph Cheal gave a most interesting lecture on "Canada of To-day, horticulturally and generally, from the Atlantic to the Pacific," illustrating his address by a number of lantern slides of views taken by himself *en route*.

Commencing with a few views of New York City and of the Hudson River, he quickly passed on to Canada itself *viâ* Niagara, giving a vivid idea as he proceeded from city to city of the marvellous rapidity with which those cities had risen to importance—a few rude sheds by the side of a railway track being transformed in a very few years into a flourishing and populous town, with wide thoroughfares, tram lines, and all the paraphernalia of civilisation; views of the wild and splendid scenery of the Rocky Mountains taken in the train, and sometimes curiously evidencing the sinuous nature of the track by including the tail end of the same train at almost right angles, interspersed with groups of settlers and natives, glimpses of fruit farms and irrigation works, and of the associated buildings, vehicles, and other details, to which a constant stream of anecdote and personal recollections added interest. Mighty trees 40 feet to 50 feet girth, and estimated at about 200 feet in height, were shown both growing and felled in connexion with the vast forests there, the views of which showed also now and again the dire effects of forest fires, the gaunt, half-consumed trunks standing up, ghastly and bare, over scores of square miles. Mr. Cheal took the opportunity when there of visiting some of the settlers known to him prior to their leaving the Old Country. Most of them had done very well, and the moral undoubtedly to be drawn from their experiences is that, given a fair constitution, a fund of common-sense, and, above all, a determination to work hard, there was no better place than Canada for an energetic young man with a little capital to start with. Mr. Cheal's advice in this connexion was that the young man should refrain from investing at all until he had obtained practical experience by hiring himself out for a year or two, and so making himself thoroughly and personally acquainted with the nature of the climatic and general conditions; while, if industrious and frugal, his original capital may have been increased instead of being swallowed up in paying for the experience essential for its proper utilisation. One thing is certain—the resources of Canada are enormous as regards rich and fertile land, the main drawback being a low rainfall and the consequent need in many parts of a good system of irrigation.

The lecture was followed by a discussion, in which Mr. Griffiths, secretary to Lord Strathcona, High Commissioner of Canada, while confirming Mr. Cheal's observations, added some interesting data. These related more particularly to the vast areas of prairie land in Canada, which formed, in his opinion, one of the greatest future fields of agriculture in the world. Here there was required no laborious clearance of forest, since there were no trees at all. The whole level expanse of thousands of square miles consisted of rich alluvial soil 2 feet to 4 feet deep, resting on clay, and only requiring to be "tickled with a plough to laugh with a harvest." A vivid idea of this condition of affairs was shown at the Canadian Exhibition at the White City in 1908, where the prairie was shown in process of agricultural development, dotted with farms in all stages, from the wooden shanty to the comfortable family house, amid the waving crops that supported them. Mr. Griffiths referred to the contrast between the monotony of the prairie with an horizon like that of the ocean itself and the diversity of the mountain regions. The monotony, however, of the prairie, he said, was but a temporary sentiment; its magnitude eventually became attractive and the dweller therein came in time to love it fully as much as a mountaineer can love his Alps.

LONDON BRANCH OF THE BRITISH GARDENERS' ASSOCIATION.

A MOST successful smoking concert was held on the 27th ult. at Carr's Restaurant. Mr. E. F. Hawes presided over a gathering of ninety-three members, who thoroughly appreciated the excellent programme rendered by members and their friends. One of the objects of the social gathering was to provide a fitting occasion upon which to present a testimonial to the late secretary. This took the form of three handsome bronze figures, each bearing an emblem to represent Commerce, Horticulture and Agriculture. The large central figure, Commerce, is mounted upon a polished marble pedestal, to which is attached a brass plate bearing the following inscription: "Presented to Mr. A. J. Hartless by members of the London Branch of the British Gardeners' Association as a token of appreciation for services rendered as branch secretary from 1907 to 1909." In making the presentation the chairman spoke in the highest terms of the zeal and devotion with which Mr. Hartless had carried out his secretarial duties, and on behalf of himself and the members of the branch he wished Mr. Hartless every success in the new sphere of labour to which he has been appointed. Mr. Hartless, in replying, said that words failed him to adequately express his thanks to the branch for its kind appreciation of the slight service it had been his pleasure to render.

*** *Owing to the demand on our space, the report of the Royal Horticultural Society is held over until next week.*

National Chrysanthemum Society's Annual Dinner.—The annual dinner arranged by the above society was held in the Royal Venetian Chamber of the Holborn Restaurant on Monday, the 29th ult., the president, Sir Albert Kaye Rollit, LL.D., D.C.L., in the chair, and about 100 members and friends being present. After the usual loyal toast and the distribution of trophies, cups and medals won at the recent show, Mr. E. F. Hawes proposed the toast of "The Donors of Special Prizes," and said that, although the society did its best to give prizes, it always welcomed the special prizes, which did much to stimulate healthy competition among the members. Mr. R. F. Felton, in responding, said that the donors looked on it as a privilege to be allowed to present these special prizes. Mr. J. W. Moorman next proposed "The Exhibitors and Affiliated Societies," and said that the exhibitors were most important, as without them there certainly could not be a show. Both competitive and non-competitive exhibitors were therefore most welcome. They liked to see new exhibitors, and they must also take care to look after the small exhibitor. Without the non-competitive exhibits he did not know what the society could do. As regards the affiliated societies, there were now over 100 of these scattered over the whole globe, and their thoughts that night went out to these affiliated societies in far-off lands. Mr. H. J. Jones, in responding, said he had been an exhibitor at the society's shows for twenty years, and during that time had won seventy gold medals. He said they especially wanted the small exhibitors, and these must be looked after. They should all put their shoulders to the wheel and do all they could to help the society. The mother society had done good work in holding out a hand to the affiliated societies. Sir Albert Rollit, in proposing "The National Chrysanthemum Society," said the society was doing a great national work. It had been established over fifty years, and had the advantage of having on its committee a number of experts, who were, of course, indispensable. He was pleased to see that the standard regarding new varieties was a very high one. The show this year was a very good one. The trade exhibits helped materially to support home industries, and market blooms were, of course, of commercial value. He hoped the society would have a class for these another year. The conferences and literature of the society were important, and as they had an excellent foreign corresponding secretary in Mr. Harman Payne, they were able to carry on their work and thereby spread peace in other countries. The Chrysanthemum filled a niche in the season of Flora when other flowers were not easily obtainable, and could also be easily grown. They should all try and get more members, as organisation was the essential attribute of all great movements. There were both social and moral advantages to be obtained by the culture of flowers. Mr. T. Bevan responded, and said he hoped the time was not far distant when the society would again be able to hold several shows each year instead of one. He also hoped that the money would be forthcoming to enable them to exhibit at the exhibition in Brussels in October next, as he knew that home growers could hold their own against all comers. Other toasts were "The Chairman," "The Ladies and Visitors," "The Press" and "The Secretary." The musical and other arrangements were excellent and the tables beautifully decorated under the supervision of Mr. R. F. Felton of Hanover Square.

"Country Life" for December 11 contains, among other articles, an illustrated account of Combe Abbey.—II.; "Tale of Country Life: The Young Days," by Adam Lorimer; "In the Garden"; "By a Burmese River" (illustrated); "Wild Country Life."

*** *The Yearly Subscription to* THE GARDEN *is: Inland, 6s. 6d.; Foreign, 8s. 9d.*

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" columns a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and, where stamps are enclosed, he will endeavour to return non-accepted contributions.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

THE NATIONAL ROSE SOCIETY.

Annual Meeting.

THE annual meeting of this society is one of the most important and pleasant events of the horticultural year. It is a society composed largely of amateurs who are imbued with a love of the flower that has given beauty and fragrance to the English garden; and on the occasion of this meeting there was the same enthusiasm as in the years gone by. The president is the Rev. F. Page-Roberts, a rosarian who has accomplished much in the tournaments of flowers that take place yearly at the Rose exhibitions. After the reading of the minutes, the business of the afternoon began. The report of the committee and financial statement for 1909 are most satisfactory. We predicted a few years ago that the membership of the society would reach a total of 5,000; that has not been so far accomplished, but the number is 3,795, which is remarkable evidence of the love of the Rose in this country.

The meeting was held at the Westminster Palace Hotel, and was devoted to various matters dealing with the present position of the society. Several alterations were made in the rules, of which it is unnecessary to give details here, these alterations being for the most part, in a sense, technical and practical.

The society has developed enormously and is managed entirely by trade growers and amateurs; no one receives payment for the services rendered. The alterations in the rules, formulated by Dr. Williams, had become necessary to meet present requirements and to raise the society, in a sense, to a higher level. Thus "the general committee of the society" is now "the council," and other matters were dealt with that will place the society on an even surer foundation. Dr. Williams, who is responsible for the alterations, has rendered a great service to the society; but all the members take a keen interest in its management. It is always a pleasure to attend a meeting of this society and to watch the business way in which it is managed. Mr. E. Mawley, the hon. secretary, has earned the gratitude of all rosarians. He has occupied the position for thirty-three years, at one time with the Rev. H. D'ombrain, and this long and devoted service was warmly recognised by the meeting. Mr. Mawley's work for the society has been remarkable; and in paying this tribute we are not forgetful of the services rendered not only by the president and officers, but also by the hon. treasurer, Mr. G. W. Cook. The management of a society composed of nearly 4,000 members, and still progressing, demands enthusiasm and personal attention, and these are willingly given to promote a love for the Rose in its various phases.

The publications are of much interest, and they have had a great influence in developing the society. They have been compiled by special expert committees and are sent to each member. No society that we are acquainted with gives so much in return for so small a subscription—one guinea a year—and now there has been added the "Rose Annual," which is a record of the year's work, with invaluable advice for those who wish to excel in the cultivation of the Queen of Flowers.

After the usual vote of thanks to the officers and committee, the Rev. J. H. Pemberton, a vice-president of the society, was presented with the Dean Hole Medal in recognition of his devotion to the society, his skill as an exhibitor, and of the value of his recent work upon "Roses." Mr. Pemberton has achieved remarkable success in the exhibition tent, and we were delighted to know that the beautiful gold medal, in memory of one of the greatest rosarians of his generation—S. Reynolds Hole, Dean of Rochester—had been so worthily bestowed. It is such men as the recipient that have made the society what it is—a great organisation for promoting the cultivation of the Rose. A warm tribute was paid to Miss Pemberton, who has assisted her brother so heartily in winning the many triumphs in the show tent. The meeting closed with a vote of thanks to the president, to the secretary and to the hon. treasurer, Mr. G. W. Cook, who presented the balance-sheet, which was most satisfactory. The society is in a strong financial position.

After the meeting, in place of the usual dinner a conversazione was held, at which the president gave an interesting address. The room was kindly decorated, and beautifully too, by Mr. Felton of Hanover Square, chiefly with Roses; but we are afraid this afternoon gathering was not a success. The room was uncomfortably crowded, very hot, and the charming music was drowned by the din of conversation. We hope the time-honoured dinner will be restored.

THE NATIONAL SWEET PEA SOCIETY.

THE annual general meeting of the members of the above society was held at the Hotel Windsor, Victoria Street, Westminster, on the 10th inst., Mr. Horace J. Wright presiding and nearly 100 members being present. After the minutes of the previous meeting had been taken as read, the secretary read the report of the committee for 1909, which was of a most favourable character. The number of members up to date is 938 and affiliated societies 101 as compared respectively

with 799 and 51 last year, so that substantial progress has been made in this respect. No provincial show will be held next year, but the London show will be for two days, July 12 and 13. The financial position is sound, the society having a balance in hand of £84 18s. 9d. The chairman, in an able speech, moved the adoption of the report, and this was seconded by Mr. Alex. Dean, V.M.H., who suggested that the society might institute a duplicate set of trials in the Midlands or North. Mr. N. N. Sherwood V.M.H., was unanimously elected president for the ensuing year and Mr. Edward Sherwood hon. treasurer, Commander Humphrey being elected chairman of committee. Mr. Cuthbertson proposed the re-election of the hon. secretary, Mr. C. H. Curtis, and proposed that he be given the honorarium of £32 10s. plus the £20 in the balance-sheet for office, &c., this being carried. The committee were re-elected with the exception of fourteen who had not attended a meeting during the past year, four of these being subsequently re-elected on account of services rendered in other ways. In addition, Messrs. H. H. Lees, F. H. Chapman, Chalker, Herbert Jones, Leek and H. A. Perkins were elected to the committee.

A new rule was then proposed and carried, this being as follows: "That members of committee who make fewer than two attendances at committees during the year shall not be eligible for re-election the following year." It was also decided that all books and documents of the society not actually in use be placed for safety in a safe deposit.

In the evening a conference was held at the Hotel Windsor, Mr. Horace J. Wright presiding and between sixty and seventy members being present. Mr. William Cuthbertson, J.P., read a carefully compiled paper on "The Imperfect Seeding of Waved Sweet Peas." Mr. Cuthbertson explained in a most lucid manner and by means of illustrations the structure of a Sweet Pea flower, and compared an ordinary unwaved flower with one of the Spencer type. The female organ of the latter, he said, was pushed out at an early stage beyond the stamens or male organs, and, consequently, the chances of self-fertilisation were remote. After describing the germination of the pollen-grain, he dealt with the possibility of pollination by the agency of insects, and said he did not think this was done in many instances, giving his reasons for so thinking. In summing up, he said: "I must put as the first and foremost cause of imperfect seeding in Spencer varieties—the open keel in conjunction with the protruding stigma, otherwise imperfect fertilisation. Then the extreme sensitiveness of the type to adverse weather conditions. Its very shape, the large waved standard, makes it much more sensitive than the old type." An excellent discussion was opened by Mr. Charles Foster, who said that he thought they would find the Spencer forms altogether more succulent and the flowers of abnormal proportions, and he believed these affected the fertility of this type. Many Spencers seeded well in dry weather, and also when the standard and wings were clipped off. Inbreeding, too, was sure to affect fertility sooner or later. What they wanted was a greater degree of hardiness in the Spencer varieties. Mr. William Deal said that even in a normal season the Spencers did not seed so well as the plain or unwaved varieties; he had noticed that bees had been very prevalent in the Spencer varieties this year. Mr. R. Sydenham said that we may often get a plant on which a few blooms get crossed and the others remained true. The humming-birds in California visited the Spencer forms more than the others; he thought each pod from a plant and its progeny should be kept separate for two or three years.

Mr. Lumley thought the Rose-cutter bee assisted pollination, and believed overfeeding was a cause of non-seeding. Mr. J. Fraser said that under normal conditions the Sweet Pea was self-fertilising, but the Spencers were abnormal forms. Mr. F. W. Harvey said he believed the Spencer varieties, being more highly developed, were trying to shape themselves so that cross-fertilisation should be necessary, and so infuse stamina into the plants. Mr. Ireland said some experiments made at Mark's Tey resulted in plants grown on unmanured soil giving no seeds at all, and autumn-sown plants did not produce as much seed as spring-sown; but this must not be taken as conclusive, because he had seen the opposite happen. Mr. E. F. Hawes said that he thought high breeding was a cause of non-seeding. Mr. Weeks was convinced that bees did assist in crossing Spencer Sweet Peas. After Mr. Cuthbertson had briefly replied,

Mr. W. J. Unwin, Histon, Cambridge, read a most interesting and carefully-thought-out paper on "Sweet Pea Names and Naming." At the outset he said he did not propose to deal particularly with the naming of Sweet Peas, but rather to outline a scheme whereby growers might be safeguarded in making their selections of distinct varieties. The society ought to debar unfixed varieties from being staged in any of the competitive classes at the London show. He also thought that a more detailed account should be given by the society of all fixed stocks. At the present time the too-much-alike list of varieties was of little help to anyone, but with the proposed detailed report on fixed stocks would prove most useful. As there is such a marked difference in the colour of many varieties as seen growing and when seen in a bunch, Mr. Unwin suggested that a bunch of twelve sprays of every fixed stock (new and old) be brought from the trials and staged at the London show under numbers, there to be judged for colour effect and size; after judging, each bunch to be named or numbered as sent to the trials. This would prove a great attraction at the show. Mr. Unwin, in conclusion, drew attention to the fact that a seedsman, who was characteristic of several, was offering seeds of novelties certificated by the society last year, and which the raisers had not yet let seeds go out of their hands. If possible, something ought to be done to prevent this.

An excellent discussion was opened by Mr. C. Foster, who said that many of the so-called new varieties were not new at all, but were simply improved selections from old varieties. Mr. Cuthbertson said the society was determined to do all that it could to eliminate synonyms. He thought the offering of novelties by seedsmen before the raisers had parted with any seeds was very serious indeed. Mr. T. Stevenson said he was greatly in favour of putting up bunches of fixed varieties from the trials at the show. Mr. Clegg thought it would be a good plan to list in the "Annual" all those certificated novelties which had not yet been put into commerce by the raisers. The conference closed with votes of thanks to Mr. Cuthbertson, Mr. Unwin and the chairman.

NOTES OF THE WEEK.

FORTHCOMING EVENTS

January 11.—Royal Horticultural Society. Meeting of Committees, 12 noon.

Royal Scottish Arboricultural Society.—The council of the Royal Scottish Arboricultural Society has had under consideration a proposal to keep a list of consulting foresters for the benefit of proprietors who do not at present employ a trained forester, but who might, on payment of a reasonable fee, receive the services of a competent man when they desired advice. The proposal was viewed favourably and a committee appointed to further consider it. Several new members were also elected at the meeting, which was held on December 3, and a recommendation to the society was agreed upon that Mr. A. T. Gillanders, forester, Alnwick Castle, be elected an honorary member on the occasion of the first vacancy in recognition of the value of his recently published work on forest entomology.

Edinburgh Seed Trade Assistants' dinner.—This annual event, which is looked forward to with much interest by the members of the trade, was held on the evening of December 3 in the Carlton Hotel, Edinburgh. There was a large attendance, upwards of 100 gentlemen forming the company. The chair was taken by Mr. William Newton, who, after the usual loyal and patriotic toasts, proposed "The Seed Trade Assistants." Mr. Newton expressed the gratification he felt at occupying the chair on such an occasion. As one of the number of assistants formerly, and also as a guest within recent years, it gave him much pleasure to be present in the capacity of chairman and also to propose the toast. Mr. Newton referred to the care, thought and attention required by the seed trade, and spoke highly of the tone prevailing among the assistants in the Edinburgh seed trade. The toast was ably responded to by Mr. J. L. Forbes. The other leading toast was that of "The Nursery and Seed Trade," which was entrusted to Mr. John Anderson, who in an able speech referred to the importance of the trade, the growing interest taken in horticulture and the increasing number of persons who were supplied by the trade. He also referred to the importance of honesty and uprightness on the part of the trade and of the assistants engaged in it. Mr. J. Grieve replied in his wonted genial manner. Other toasts were also submitted, and a full and excellent musical programme was carried through. The evening's proceedings were most successful, and the seed trade assistants are to be congratulated on the success of this event.

Presentation to Mr. Donald Conning.—To mark the esteem in which he is held, and in recognition of the completion of his semi-jubilee as gardener at Lewis Castle, Stornoway, Mr. Donald Conning was the recipient of a testimonial, which was presented to him the other day. The subscribers assembled in the Royal Hotel, Stornoway, ex-Provost D. Smith occupying the chair and making the presentation. In handing the gift, which consisted of a purse containing the sum of £26, to Mr. Conning, Mr. Smith made a pleasing reference to the high esteem in which Mr. Conning was held and to the appreciation of his work at Lewis Castle, work which is abundantly evident to the public, who are allowed to visit the magnificent grounds under his care.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

The spraying of fruit trees.—In your issue for November 27, "X. Y. Z.," in his careful and interesting summarising on the papers and statements made at the Spraying Conference at the Horticultural Hall in October, 1908, asks me to name the wash I have found so useful for applying in the early stages to keep aphis, mildew, &c., in check before any trace of insects could be found. The insecticide I then referred to was that made by the Paddock Wood firm, and known formerly as Abol. Of late, however, the firm has put on the market an improved kind under the name of White's Superior. I may be permitted to say that during the past year Roses sprayed when the young growths had advanced, renewing the application in ten days or a fortnight for three times, kept the growth clean of aphis and mildew, although a plant of Celine Forestier was growing in a most draughty place. The same was applied to Morello Cherries growing on a north wall before any aphis could be seen, and they remained clean all the season. Soft-wooded plants, such as Cinerarias, can be kept quite clean

by this early spraying, and this is easily accomplished by using the Abol syringe with its bent nozzle, when every part can be reached. During the past autumn, having plants of Primula kewensis infested with fly through inattention, I applied this wash with the bent nozzle of this syringe, and removed all the insects with two applications. I then soaked a pan of plants in the solution I had used on both occasions to note its effect, and now (early in December) they are in the most healthy condition, thus showing the non-poisonous nature of the wash. It is almost impossible to over-estimate the value of early spraying, and it should be considered, as Mr. Getting puts it, as an insurance. To point this out induced me to give my experience with this insecticide after a continual use from its first being sent out, both under glass and in the open garden.—J. CROOK, *Camberley.*

Rock plants on flagged pathways.—Few things in gardens seem to me to be more undesirable than the practice of planting carpet or rock plants, Dianthuses, Saxifrages, Sedums, Aubrietias and myriads of other things between the flag-stones which form pathways beneath pergolas or in various parts of the garden. My sense of tidiness is revolted when I see such, especially when having been all one's life instructed or instructing others to keep all walks clean, free from weeds, moss or any young vegetation, and as smooth and as pleasant to walk upon as possible. The walking on one of these fantastically planted flagged footpaths resembles crossing a stream on disconnected stones, the greatest care being needed to step rightly. He would be a Philistine indeed who would ruthlessly tread a plank, however dwarf and humble; yet the specified purpose of the walk is that it shall be freely walked upon. Does not this form of planting lead to a species of gardening run mad? Next to a perfectly smooth grass walk, nothing can excel one of yellow gravel toned in colour and perfectly smooth.—A. D.

Cratægus Pyracantha Lelandii. A few days since I saw on the shrubbery margining the beautiful promenade that adjoins the Thames at Surbiton three large bushes of the Cratægus so richly and so perfectly fruited that they glowed in the declining sunlight like veritable burning bushes. How much more rich in colour are the berries of this Lelandii form. These shrubs were not in luxuriant growth, and it does seem as if too great luxuriance did not tend to such abundant fruiting. Either, could the berries be made to show their true colour, would have made a beautiful picture. Would that we had in our shrubberies—usually so dull and heavy in winter—more of these berried shrubs. We get abundant fruits on Aucubas now, but they are so largely hidden. Pernettyas fruit finely on peaty or boggy soil, but they do not give rich, bright colours. Cotoneasters and Berberis help somewhat; but amid the wealth of leaf and flowering shrubs we have there is ample room for more winter fruiting shrubs.—A. D.

A new Rose Acacia.—Robinia Kelseyii is closely allied to R. hispida, but especially the smooth-stemmed variety of it, for the subject under notice has no bristles on the stems and branches. It was discovered and introduced to cultivation in America in 1901, reaching this country in 1903. It flowered in 1908 and again this year, during the first half of June, in different parts of the gardens at Kew, for there are already many flowering plants a few feet in height. The plant makes a shrub 3 feet to 10 feet in height, and differs from R. hispida in having narrower leaflets and smaller flowers of a pleasing rosy pink. The young leaves are tinted with purple, which adds to the beauty of this hardy subject. It has not the rank growth of R. hispida, and the branches are, therefore, not so liable to get snapped by the wind. The Pea-shaped flowers are freely produced in short racemes of five to eight, and are not hidden by the foliage, which starts into growth late in spring, like that of its congeners. It is readily increased by grafting on the roots of the common or False Acacia (R. Pseudacacia), so that its easy propagation, neat habit and handsome flowers should ensure a speedy distribution in British gardens. The fruits are rather conspicuously covered with red glandular hairs, and when the bush is well established and flowering freely, its summer beauty will be considerably prolonged. It may be planted in beds and masses on the grass or in mixed shrubberies.—J. F.

A beautiful border Carnation.—Good border Carnations do not abound, although there are many varieties that are regarded with favour for garden embellishment. They are reputedly good, but when one gives them a prominent position in the border, most growers know only too well how very disappointing they often are in this position. Prominence is given to the variety under notice because of its beautiful white blossoms, which, I believe, are developed in profusion. It is a seedling raised by Miss E. H. Ekins of St. Albans, Herts, who is a very enthusiastic amateur gardener and who showed the result of her cultural skill at the first exhibition held under the auspices of THE GARDEN in July, 1908. I think this lady should give this new variety a name and that it should be distributed without delay.—D. B. C.

Freesia Armstrongii.—Although not actually stated, your correspondent, Joseph Jacob, page 591, suggests that Freesia Armstrongii first flowered with Mr. C. G. van Tubergen of Haarlem in 1902, and was then named Freesia Armstrongii. If the writer will refer to THE GARDEN for May 25, 1901, he will find this species therein figured, and the following note over the well-known initials of "W. W.": "A Freesia in which the dominating colour is rich rosy pink is a welcome addition to spring-flowering greenhouse bulbs. Such a plant has been in cultivation at Kew for about three years, and this year it has displayed itself to the full. In general characters it resembles the true Freesia refracta (aurea), differing only in the absence of purple from the leaf bases, and in the colour of the flowers. The tallest scapes are 20 inches high, with three or four branches, the racemes bent almost at right angles, and each bearing from six to eight flowers, set at a quarter of an inch apart, 1 inch long, exactly the same in shape as those of F. refracta, the tube white, with a splash of orange at the base, the segments heavily margined or laced with rich rose in which there is a suspicion of purple. The plants flower at the same time as F. refracta, that is, about a month later than the larger flowered F. alba; some of them are still in flower, May 14. Kew is indebted for this plant to Mr. W. Armstrong of Port Elizabeth, who found it wild at Humansdorp, Cape Colony. It has ripened seeds at Kew, and the seedlings are exactly like their parent." It will thus be seen that "W. W." refers to the popular white-flowered form as Freesia alba, not F. refracta alba, which fact has been before now pointed out in the pages of THE GARDEN.—H. P.

Roses and mildew.—The subject of mildew on Roses is one of such general interest that even the experience of the grower of a few Roses in a suburban garden may be useful. This year, with me, the Roses to suffer most were Grüss an Teplitz, Mme. Pierre Cochet, E. Veyrat Hermanos and Mme. Hector Leuilliot, all grown on a south wall. Lady Waterlow, Billiard et Barré and Mme. Jules Gravereaux, in the same situation, were untouched. In a Rose border in the open, Queen of Spain, Mme. Abel Chatenay and Celia were rather badly attacked; Lady Ashtown, George Laing Paul and Betty slightly so. Roses which I have so far found to be quite free are M. Joseph Hill, Paul Ledé, Mrs. Aaron Ward, Mme. Pol Varin-Bernier (a charming little Rose which deserves to be better known), Marquise Litta, Prince de Bulgarie and Amateur Teyssier. Of the dozen or so Hybrid Perpetuals grown, Heinrich Schultheis, Mrs. John Laing and John Stuart Mill are nearly always sufferers. Hugh Dickson, Ulrich Brunner and J. B. Clark have been free from the scourge. Mrs. Blair (page 574) seems to have found remedies of little avail; but I have certainly found that Mo-Effic, followed by Cyllin Soft Soap, as recommended last year by a writer in THE GARDEN, will very quickly check an attack.—W. ST. P. B., *Bedford.*

—— Mildew is certainly one of the most difficult diseases to combat among Roses, whether it be under glass or in the open ground. We can avoid some of its chief causes and fight against the results of mildew to better advantage when the plants are under cover; but outside we are more at the mercy of atmospheric changes. Taken all round, I do not think we suffered so much as usual during the past Rose season. Among varieties most subject to mildew are Her Majesty, Queen of Spain, Innocente Pirola, Bessie Brown, Lady Mary Fitzwilliam, Violette Bouyer, Abel Carrière, Maréchal Niel, Souvenir de Pierre Notting, Reynolds Hole, Camille Bernardin, Crimson Rambler, Climbing Niphetos, Climbing Devoniensis, François Michelon, Mrs. W. J. Grant, Lady Helen Vincent, Climbing Perle des Jardins, Rosslyn, Rev. Alan Cheales, Prince C. de Rohan, Ethel Brownlow, Mildred Grant, Mrs. E. Mawley and Mme. Margottin. Fortunately, with the exception of Maréchal Niel, we can replace much the same colours and general usefulness of growth by varieties not nearly so subject to this pest. A few that are especially free from mildew are Ulrich Brunner, Mrs. Rumsey, Tom Wood, Mrs. B. R. Cant, Mme. Antoine Mari, Boule de Neige, Lady Waterlow, Joseph Hill, Grüss an Teplitz, Dupuy Jamain and Captain Hayward. All of the rugosas are quite free with me, and, like the Penzance Briars, do not suffer from this or red rust, which so often spoil the majority of our early flowering Roses. The wichuraianas are also very free from these two diseases.—A. PIPER.

NEW PLANTS.

CHRYSANTHEMUM MRS. W. PARKER.—A remarkably good, free-flowering single variety, the naturally grown sprays producing eight to a dozen flower-heads each. The colour is white with a pink tinge, and the plant is about 3 feet in height. Exhibited by Mr. F. Brazier, Caterham. Award of merit.

Chrysanthemum Kathleen May.—The most brilliant single-flowered variety we have seen, a veritable gem of crimson and gold. In any light the brilliant crimson-scarlet florets are most effective, and seen in the large flower-heads, fully 4 inches across, appear quite unique, the clear golden yellow of the disc enhancing the value of a novelty of sterling merit and distinctiveness. Shown by Messrs. H. J. Jones, Limited, Ryecroft Nursery, Lewisham, S.E. Award of merit.

Cypripedium Lion (Boadicea × Sallieri hyeanum.—A very handsome hybrid, the broadly ovate dorsal sepal coloured rose and margined with white, the widely winged sepals having a greenish tinge in the lower half and a reddish bronze tone in the upper half, the pouch being mostly of the latter tone, interspersed with green. A very showy and striking flower. Shown by Messrs. Sander and Sons, St. Albans. Award of merit.

BOOKS.

Warley Gardens in Spring and Summer.*—This sumptuous work consists simply of collotype reproductions illustrating an intensely interesting and charming garden. The world of horticulture owes much to Miss

* "Warley Gardens in Spring and Summer," by Ellen Willmott, F.L.S., V.M.H. Published by Bernard Quaritch, Grafton Street, New Bond Street, London. Price £1 1s.

Willmott, who is not only enthusiastic herself, but inspires enthusiasm in others. In has been the privilege of the writer to visit Warley on several occasions, but perhaps it is in the springtime of the year, when the Daffodils and the Crocuses make glorious carpets of colour, that it appeals most to those who love their gardens. The illustrations are from Miss Willmott's own photographs, and set forth the many phases of gardening which are represented in this Essex home. The frontispiece is of the house itself, from which beautiful views of the surrounding country are obtained, the Thames winding in the distance, but in the spring of the year there are Daffodils in profusion in the grass. "Wild Crocuses," the first plate, portrays the beauty of the flower, the grass gemmed over with a carpet of exquisite colouring; then the Nut walk, with its fluttering Daffodils; and in Plate 3 is depicted the "Varied Planting of Rocky Slope," Yuccas, tree and shrub grouped in a way to show their characteristic beauty. The plate that follows, "Dog's-tooth Violets," has much teaching value; it shows this beautiful and neglected flower grouped among stones, and this, we think, is one of the most charming pictures of the book. Another gem is "Alpine Primroses," and then follows an open sweep, "On the Way to the Alpine Garden," "Californian Rockfoil by Margin of Water," "Flower Border in June," and "Ramondias in Alpine Garden." There are fewer more interesting plants for the rock or alpine garden than the Ramondia. It has characteristic deep green leaves and purplish flowers, which, however, in the variety alba are white. A delightful study is "Harebells and Mountain Pinks," and there is much to interest one in the plate showing a wealth of Foxgloves. Well we remember the pools in the alpine garden, of which two illustrations are given. "Rocky Pathway" is a beautiful reproduction. This teaches one the value of grouping and also the right position in which to place certain flowers. "Flowers which Grow in the Shade" is an illustration of great beauty, but it is more than this—it shows how much can be accomplished under these conditions. "The Garden House" and "Nankeen Lilies" are two exquisite pictures. "Warley Gardens in Spring and Summer" is a book worthy of the author and worthy of a garden that is full of rare plants. Miss Willmott has accomplished much. The Daffodil is one of the flowers that have a place at Warley, and is there represented in many forms, and the Rose, too. No one has done more during recent years to help forward the National Rose Society. Horticulture owes much to such workers among the flowers as the author of this beautiful book.

Fruit Ranching in British Colombia.*—This is a most instructive and thoughtful book, and should be read by all who contemplate settling in British Colombia. In the preface reasons are given for not attempting fruit-growing in these isles. It enters thoroughly into the business side of the matter, and no detail has been omitted that would be likely to assist those who intend to embark upon this industry in Canada. Many illustrations are given, and those of individual varieties are especially interesting, that of "Cox's Orange Pippin—Two Years Old" in particular (facing page 16).

Field and Woodland Plants.†—A charming book which all who love the country should add to their library. Unfortunately, want of space prevents a lengthy notice, but this is a book to keep close at hand whether one lives in the country or not. It is well written, free from needless technicalities, fully illustrated, and forms an additional volume of value to the young naturalist's "Outdoor World Series."

* "Fruit Ranching in British Colombia," by J. T. Bealby. A. and C. Black, London.

† "Field and Woodland Plants," by W. S. Furneaux. Longmans, Green and Co., London. Price 6s. net.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FRUITS UNDER GLASS.

STRAWBERRIES.—A number of these may now be cleaned, top-dressed and placed in a gentle warmth near to the glass to start into growth. See that the pots are well washed, and any worms which may have got into the soil should be removed. Do not keep the roots too wet. For some time very little water will be required, but after new growth and the roots have been set in motion more water will be necessary. Begin with a night temperature of 45° to 50°, rising to 55° by the time the trusses are visible. Admit a little air daily according to the weather, and should green fly appear, fumigate at once. Should the weather prove bright and sunny, slightly syringe the plants with tepid water; but this should be regulated according to the pitch of the house in which they are being forced.

Figs.—For the production of early dishes of these fruits, plants in pots or tubs will require attention, and the wood, if not done, should be washed with a solution of soap and sulphur. Top-dress with suitable soil and stand them in a gentle warmth, after which plunge the pots in a bed of leaves that will produce a lasting heat. Moderately low houses facing the south are the most suitable.

KITCHEN GARDEN.

Cucumbers.—Plants in bearing must be carefully attended to, keeping the night temperature at about 70°, or 5° less in preference to very hard firing. When the weather is very cold, cover the glass, if possible, with mats to help to preserve the heat. Keep the foliage clean and free from red spider (one of the most troublesome insects) by carefully syringing the plants in fine weather. Do not keep the roots too wet, and if they are plentiful, top-dress lightly with a little fresh, sweet soil and leaf-mould. Do not allow the plants to become too crowded, and attend to the stopping of the young growth; a fresh stock of young plants may now be reared. Sow the seed singly in small, clean, well-drained pots, using a rather light soil. The pots must be plunged in a brisk bottom-heat, and the soil need not be watered for some time, but when the seed has germinated more water in a tepid state may be applied.

Tomatoes.—Young plants raised from seed sown at the end of November will now be large enough to be pricked off into small pots, either singly or two or three in pots a little larger. Use the soil rather light and porous, and of the same temperature as the house in which they have been raised. Tomato plants require very little pot room and moisture at this stage and time of year, and they must be given a warm, light position near the glass.

PLANTS UNDER GLASS.

Keep on the dry side plants of Allamandas, Stephanotis, Clerodendrons and other kinds that are still at rest, but do not allow them to suffer through over-dryness. Gardenias to flower early will require a little stimulant at the roots at intervals, and any new side growths near the flower-buds should be removed. Keep the foliage healthy and free from insects, and syringe occasionally overhead during bright weather.

Streptosolen Jamesonii, with its long sprays of orange-coloured flowers, should be given a position where large quantities of flowers are required and suitable house room exists. It grows well in the conservatory trained to lattice-work on the walls, also on pillars and in pots. Young shoots made into cuttings root freely and quickly make useful plants.

H. MARKHAM.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

FRUIT HOUSES.

VINERIES.—Where ripe Grapes are expected in May next and pot Vines are not grown for the purpose, the earliest permanently planted house should be closed, or if this, owing to the severe weather of late, has already been done, a slight amount of fire-heat may be applied and the canes damped with tepid water whenever a bright day occurs to raise the temperature. As an assistance to the free bursting of the buds, and also a saving of fuel, a cartload of well-worked fermenting material—stable litter and fresh tree leaves in about equal parts—placed upon the border in a heap would soon generate a steady, genial heat, which, on being turned occasionally to liberate the accumulated ammonia, would prove very beneficial to the Vines. While this is going on another supply for its replenishment should be in course of preparation outside, so that, once started, the treatment is continued until leaves appear, when fire-heat alone will be safest. The practice of bending the canes so that the tops are in near proximity to the roots is worth following in the case of young and vigorous Vines, the result being a more even advance of the buds. Old Vines would be less affected by this, even could it be done, but the tops being depressed according to their rigidity and tied over the pathways is helpful in this way, and syringing is more effectively performed.

Peach-houses.—Trees that for several seasons have been forced respond quickly to extra heat applied, and this should be of very moderate degree at first. Having cleansed the house and the trees and tied the branches of the latter in position, it would be well to ascertain the condition of the border as to moisture, and water be given if necessary, a process which may not require repeating until the flowering period is past.

Figs in Pots.—These are best for early work, and presuming that any root disturbance considered necessary was carried out some time ago, the plants may now be placed in the most convenient structure available, and this, if possible, should be so constructed that a large bed of Beech or Oak leaves may be employed as a plunge-bed for the pots; failing this and fire-heat alone having to be depended upon, a night temperature of 50°, or even less when outside atmospheric conditions are unfavourable, will be ample for some time. Make the most of sun-heat and sprinkle the trees freely in bright weather, while the same about the walls and pathways will suffice under opposite conditions. Water at the roots must be very sparingly applied until growth is visible, more particularly so should much of the rooting medium be as yet unoccupied by roots.

HARDY FRUITS.

Pruning and Training.—This work should be proceeded with whenever the weather permits. Where summer pruning is well attended to, that of winter is much reduced, much to the benefit of the trees, and the work now will mainly consist of cutting away dead and effete snags and reducing in length unripened shoots. Training can be properly done only at this time, by carefully examining all ties and shreds and renewing any that are tight around the branches or that have become obsolete. At the same time, any shoots of the current year that were left for the extension of the trees should be trained close to the supports and as straight as possible. Apples.—In pruning these some consideration paid to the natural habits of varieties is helpful. Some, such as Lady Sudeley, Gladstone and Worcester Pearmain, produce flower-buds principally about the points of the branches, and a mere thinning out of these is preferable to hard pruning. Cherries and Plums, but more particularly the former, are impatient of hard pruning.

JAMES DAY.
(Gardener to Sir Malcolm M'Eacharn.)
Galloway House, Garlieston, Wigtownshire.

THE FRUIT GARDEN.

AMERICAN BLIGHT AND CANKER IN APPLE TREES.

UNDOUBTEDLY two of the most insidious pests that the fruit-grower in this country has to contend with are American blight and canker, known respectively to scientists as Schizoneura lanigera and Nectria ditissima, and as the winter season is one in which much may be done to combat these foes, it may be well to devote a little attention to them. The first-named is of animal character, and is often known as woolly aphis, and the latter lay eggs in autumn in the crevices of the bark, these usually hatching in spring. Not only the branches, but the roots also, of trees are attacked by this pest, and colonies of the insects, especially during the winter months, may be found on the roots.

Having thus briefly considered the history and character of this pest, we may now turn our attention to its extermination. At the present season nothing is better than the caustic wash made by dissolving half a pound of caustic soda (98 per cent.) and half a pound of commercial potash in five gallons of water. This should be forcibly injected into all crevices where the pest is lurking, and will kill all that it reaches. In old, badly infested trees it may be necessary to well work it into the wounds with a stiff brush. The roots are naturally more difficult to deal with; but if it is suspected that they are affected, they should be exposed and treated with the wash, during the using of which rubber gloves should be worn, as it has a burning effect on the hands. At Woburn successful experiments have been conducted by injecting carbon disulphide into the soil in which the roots are growing, 2oz. to 4oz. being used to each tree, a special pointed syringe being used for the purpose.

In summer the best treatment is to use a petroleum wash in the form of a soft soap emulsion, such being sold by several makers of insecticides. In the case of old trees, this should be scrubbed or brushed well into the wounds where the insects are situated, ordinary spraying being of little use owing to the woolly material with which the pests are protected. Young nursery trees, if any suspicion as to the presence of American blight exists, should be immersed for ten minutes in water at a temperature of 115° Fahr. This has proved most effective at Woburn; but it must be remembered that the placing of the trees in the water lowers the temperature, and this must be maintained by the adding of more hot water. Once this pest gains an entrance to an orchard, nothing but persistent efforts on the lines indicated above will exterminate it.

A VASE OF A WHITE BEDDING CARNATION. (*See page 611.*)

is a fungus; but, nevertheless, they not infrequently work in harmony, hence my reason for dealing with the two in one article. The wounds caused by American blight often afford a lodging for the spores of canker, hence this animal pest may be regarded as an assistant of its fungoid ally.

Taking American blight first, this is happily easily recognised by the woolly substance in which the colonies of insects are embedded. Under cover of this protection they pierce the bark and form ulcerated wounds, which, as stated above, provide excellent places of lodgment for canker. During the winter months the insects are in a more or less passive state, but in summer propagation goes on at a fast rate, winged viviparous females going from tree to tree and establishing new colonies, and egg-laying females

Canker is usually regarded as being due to poor cultivation or planting trees in badly drained soil, and although these may assist the disease, inasmuch as they weaken the tree, it often appears on trees that have been afforded good cultivation. It forms rugged-looking wounds on the branches, killing the bark as it goes, and if left alone will in time encircle the branch and so kill it. Where a branch is almost or quite dead, it should be cut out below the point of infection; but other less advanced wounds may sometimes be cured by paring them out with a sharp knife, taking care to cut well into live tissue. As mentioned at the outset, wounds caused by American blight and other means, such as the chafing of two branches, provide suitable points of entrance for the fungus, and all such should be pared smooth and painted with Stockholm or ordinary coal tar, this also applying to the wounds from which the fungus has been cut.

Cultural details must also be attended to. If it is found that the soil is at all water-logged, this must be remedied. A mixture of manures which has been found specially useful in combating this disease is made up as follows: Superphosphate, 6lb.; nitrate of potash, 5lb.; sulphate of lime, 2lb.; nitrate of soda, 1½lb.; and sulphate of iron, ½lb. This should be applied as a top-dressing in January or February at the rate of 4oz. to the square yard. During the winter months, when work is naturally slack, much good work on the lines indicated above may be done in fruit plots or orchards where either of the pests are present.

H.

JOHN GERARD.—I.

HIS LIFE.

JOHN GERARD, who was born at Nantwich, Cheshire, in the year 1545, may appropriately be called one of the Fathers of British Gardening.

At a very early age he was drawn to the study of botany. Very likely the seeds would be sown as he trudged the two miles to school at Willaston or spent his playtime in the lanes and fields, for he remembered some wild "Raspis" (Raspberries) that grew "among the bushes of a cawsey neere unto a village called Wisterson where I went to school," when years afterwards he was compiling his great work, "The Herball or Generall Historie of Plantes." As it is the existence of this book that has made him so famous, and as there are so many things of interest in connexion with its compilation and its contents, I propose, on the Editor's suggestion, to make it the subject of a second article.

Then, as now, a young man with ideas and aspirations would be sure to make his way to London on the earliest opportunity. In all probability Gerard, like Dick Whittington, thought the streets were paved with gold, and if he had heard the famous tale, he might very well have imagined that his love of plants and his desire to excel in his profession would be talismen in every way as efficacious as Dick's historical cat.

At any rate, in 1562 he was apprenticed to one Alexander Mason, a surgeon with an extensive practice in London, who rose to be both Warden and Master of the Barber-Surgeons. His pupil was admitted to the freedom of the company on December 9, 1569. It would be an interesting digression to trace the history of the "barbers" and the "surgeons" up to and after their union in 1540. It must, however, be sufficient to note that the commemoration of this event has been immortalised in the great work of Holbein, which is now "the company's chief treasure." It represents King Henry VIII. seated on a Chair of State and surrounded by eighteen kneeling surgeons, to one of whom he is handing a deed.

Gerard when a young man visited (probably as surgeon on board a merchant vessel) both the Baltic and the Mediterranean. He writes of having seen "wilde Pines grow . . . in the woods by Narua and all the tract of the way from Narua unto Moscouia," and of having talked with "the Merchants of the Factorie at Tripolis" about Cedars.

He settled down in London before 1577, as in his preface to the Herbal he says he had super intended Lord Burleigh's gardens in the Strand

and at Theobalds in Hertfordshire for twenty years. Here for his "very good Lord and Master he had added from forren places all the varietie of herbes and flowers that he might any way obtain and he had laboured with the soile to make it fit for the plants, and with the plants to make them to delight in the soile." All this must have taken up a great deal of his time, and, to some extent, must have prevented him exercising his calling as a doctor or surgeon. It must be remembered, too, that he had a garden of his own in Fetter Lane, and that he sometimes took long journeys in search of rare simples. In this way he became familiar with a very large number of plants, and so George Baker, "one of His Majesties chiefe Chirurgions in ordinarie," in the laudatory letter which he contributed as a "send-off" for the book, was able to write, "I do not think for his knowledge of plants that he is inferior to any," mentioning that in a friendly trial of naming with the celebrated French gardener Robin "my Frenchman did not know one to his fower." In a poem, contributed by his learned friend and loving brother in art, Thomas Thorney, the author, addressing him, says:

We see
How thou thy mind hast bent,
Thy bodie toyld, thy time bestowde
And many a pound hast spent,
In sleeplesse nights, in restlesse daies,
In places far and neere.

Of Gerard's family life we know nothing, except that he was married and that his wife was of very great assistance to him in his profession. From the solitary reference to her in his Herbal, I would suggest that she was able to take a considerable part of this work off his hands, thus allowing him more time for his gardening occupations.

He lived at Holborn, at that time a fashionable suburb of London. Here, doubtless, he would be visited by his many friends and acquaintances of high and low degree, for his nature was such that he was able in a remarkable manner to attract men. Quite casually in his Herbal he mentions more than fifty who helped him by sending plants. Robin of Paris, Camerarius of Nuremburg, Lord Zouch, Nicholas Lete and John Franqueville, two merchant princes of London, Thomas Edwards of Exeter, and James Garret, an apothecary, were among the senders of foreign plants; while for indigenous, the names he most frequently mentions are Thomas Hesketh, a Lancashire gentleman, and Stephen Bredwell, a West of England physician.

In one way the times may be compared to our own. Gardening was every day becoming more and more the fashion. The growing commerce and spirit of the times, the many novelties which were being brought to England by Raleigh and Cavendish and other travellers, the publication of such books (really monographs) as "Monardes on the Simples of the West Indies," which work was translated into English by James Frampton, a merchant who had resided for a long time at Seville, all combined to make the age a memorable one in the history of gardening and medicine.

No one realised this more than Gerard. No one did more to foster it. This was why he had a garden of his own. It must have been well known and highly thought of, for he published in 1596, at the request of many friends, a list of all the plants that he had in this little plot of his "special care and husbandrie." No less than 1,033 species are enumerated. This little badly printed book of twenty-four pages is the first complete catalogue of any one garden, private or public, ever published. Only one original copy exists to-day, and that is in the British Museum. However, in 1876 Mr. B. Daydon Jackson, F.L.S., published a reprint both of this first edition (1596) and also of the second edition of 1599, together with an excellent "life." This may be justly considered the standard work on the subject, and I wish to take this opportunity of acknowledging my indebtedness to Mr. Jackson for his so kindly placing a copy at my disposal.

A want of the day, both from a medical and horticultural point of view, was an up-to-date Herbal in English. Turner, although the complete edition had only been published in 1568, had become more or less obsolete; Lyte's Herbal, based on one written by the learned Dutchman Dodoens, was manifestly very imperfect; Lobel's writings were in Latin and could never become popular. There was a great opening. Gerard was sagacious enough to discern it, and so this want gave birth to "The Herbal."

His position as a doctor and his practical knowledge of medicinal plants are reflected in his standing as a member of the Barber-Surgeons Company. He became a Warden in 1597. He was appointed examiner in 1598 and again in 1607. He was elected to be Master in 1608. He was frequently nominated as one of a committee to carry out some special undertaking or to act as an arbitrator in some dispute. He died in February, 1612, and was buried at St. Andrew's, Holborn, on the 18th of that month.

A half-length portrait by William Rogers faces page 1 of his Herbal. As may be seen from the reproduction below, he holds a branch of the newly introduced Potato plant in his hand, while below are his own arms, those of the City of London and of the Company of Barber-Surgeons, from the first of which we gather that he was in some way connected with the Gerards of Ince in Lancashire, but there are no records to show his parentage or descent. He had undoubtedly a very great practical knowledge of plants. Through his connexion with the most powerful statesman of the Elizabethan Court he had exceptional opportunities of getting new and rare plants, and he certainly cannot be reproached with having neglected them.

JOHN GERARD.

As he himself admits, his acquaintance with Latin and Greek was but slight; nevertheless, his Herbal met a want, and although, as a consequence of his lack of classical learning, it contained many imperfections, it at once took a unique position among similar works of the age, so much so that when Thomas Johnson practically rewrote it in 1633 he dare not risk a new title. Although very hard-working and a man with a high reputation as a "herbarist," being appointed to act in that capacity towards the end of his life to King James I., he did not find the streets of London paved with gold, but died a poor man.

Preferring still the common good,
Neglecting still thine owne,
And art content that we shall reape
The seede which thou hast sown.
—T. THORNEY, in an introductory letter to the Herbal.

Attractive and lovable as his nature must have been, to judge by his many friends, he had a somewhat hasty temper, which led him into trouble every now and again, and caused him to be needlessly outspoken—on one occasion, at any rate. Shrewd and far-seeing in his work and profession, and making the most of his opportunities for acquiring new plants, John Gerard undoubtedly encouraged, by his own personal example, the cultivation and study of both native and outlandish plants; and, although his primary object was the enlargement of the British Pharmacopœia, he incidentally did much—more by far than any of his contemporaries—to encourage and improve the art of Gardening. JOSEPH JACOB.

(To be continued.)

PROTECTING EVERGREENS FROM WIND

OF all trees and shrubs requiring protection from wind, none need it more than evergreens recently planted; they are liable to be blown about, and when this is not guarded against the young roots are prevented from taking hold of the soil, and the mass of roots and soil becomes separated from the surrounding earth. Interstices are formed into which rain first and frost afterwards enter, while in spring the parching winds penetrate.

TREES AND SHRUBS.

RHODODENDRON GILL'S TRIUMPH.

RHODODENDRON griffithianum, or R. Aucklandii as it is sometimes called, is a well-known and very popular Himalayan shrub in gardens in the South-West Counties; but further North and in colder districts it has to be accommodated in a cold greenhouse. Its immense white, shapely blossoms, each 4 inches to 5 inches across, stamp it as distinct from all other Rhododendrons, and it is little wonder that the hybridist has endeavoured to obtain its size of bloom with the colours and larger trusses of other kinds. Mr. R. Gill, until lately head-gardener at Tremough, near Falmouth, has been one of the foremost of these hybridists, and he has succeeded in raising several very desirable novelties, one of the best of which is Gill's Triumph, shown in the accompanying illustration. As will be noticed, the trusses are larger than those of R. griffithianum, while the flowers are almost as much across, but more tubular, resulting, no doubt, from the influence of the other parent, R. Thomsonii. The colour is a particularly rich shade of red. Other showy hybrids of this type raised by Mr. Gill are Beauty of Tremough, pink, and Glory of Penjerrick, red. The late Mr. Mangles also raised a number of very showy kinds, using R. griffithianum as one parent, while several have been raised at Kew, the best one of which is appropriately named R. kewense. The last-named plant is hardier than most of the sorts, as it grows outdoors in most parts of the country, for it has to be admitted that, though these beautiful kinds are quite at home in the mild climate of the South-West Counties, they are a qualified success out of doors further North. D.

LIBOCEDRUS MACROLEPIS.

THE genus Libocedrus is represented in gardens by a few species, only one of which can be said to be really well known, that being L. decurrens, a Southern Californian tree of stately, columnar habit, of which fine examples are met with in several parts of the country, a number of noteworthy examples occurring in the grounds at Frogmore and Windsor. The Chilian L. chilensis is also occasionally met with out of doors, while the New Zealand L. doniana sometimes finds a place in a cool greenhouse. A few years ago Messrs. Veitch succeeded in introducing a fourth species, L. macrolepis, from Yunnan; unfortunately, however, it has to be classed with the New Zealand plant, for it is not sufficiently hardy to stand out of doors in the neighbourhood of London. L. macrolepis was originally discovered by Dr. Anderson, who accompanied the expedition of Major E. B. Sladen to South-Western China as medical officer and naturalist for the purpose of opening up new trade routes early in 1868. A description of the species was made by Kurz in the "Journal of Botany" in 1873, page 196, Fig. 133, under the name of Calocedrus macrolepis. This generic name was, however, subsequently dropped and the species included in Libocedrus by Bentham and Hooker in the "Genera Plantarum," Vol. III., page 426. A very nice specimen, 6 feet or more high and upwards of 3 feet through, is to be seen in the Temperate House at Kew, in addition to several smaller examples. This plant is possibly the largest in the country. D.

COLOURED PLATE.

PLATE 1389.

TWO NEW SINGLE CHRYSANTHEMUMS.

MANY beautiful varieties of single Chrysanthemums have been raised and put into commerce during recent years, and these have done much to popularise this type of the Autumn Queen, and the single forms may now be said to be ousting some of the larger-flowered varieties from their erstwhile prominent position. Nor can this be wondered at when we realise the numerous uses to which they can be put and for which the larger flowers are unsuitable. It is surely a sign of the times that our leading growers are devoting much time to the raising of these single-flowered varieties. Two flowers that were very much admired when shown for the first time last year by Messrs. Wells and Co. of Merstham were Peter Pan and Merstham Jewel, the colour of which is well shown in the accompanying coloured plate, and we are indebted to Messrs. Wells for the flowers from which the drawing was prepared. As will be seen, the blossoms are of good shape and are freely produced on stout stems, so that they should prove excellent for cutting. The colours will, we think, appeal to most of our readers.

HIMALAYAN RHODODENDRON GILL'S TRIUMPH.

THE GREENHOUSE.

NEW CERTIFICATED CHRYSANTHEMUMS.

TWO meetings of the National Chrysanthemum Society's floral committee have been held since notes respecting certificated novelties appeared in the issue of THE GARDEN dated November 13. Both meetings were full of interest, as a very large number of new Chrysanthemums of a high degree of excellence were placed before the committee, who observed an excellent standard of quality when making their awards. The following varieties were recognised as worthy of an award of either a first-class certificate or a commendation:

J. Wynn.—This is a beautiful novelty of true incurved form, having long florets of good width that build a globular flower of splendid substance. Colour, white, freely tinted blush lilac. First-class certificate to Mr. J. Wynn, Sedgeford Hall Gardens, King's Lynn (November 15).

Edwin Thorp.—This is another beautiful white flower that must be regarded as a distinct acquisition to the incurved section. The florets are of good length and of medium breadth, and build an incurved bloom of splendid depth and solidity. Commended. From Mr. H. W. Thorp, Durrington, Worthing (November 15).

Arthur Rawlings.—Without a doubt this is one of the finest new single-flowered Chrysanthemums of the present season. Japanese single is a better description of the type. It is a large flower, measuring fully 6 inches in diameter, having long, fairly broad florets that recurve evenly and droop pleasingly at the ends. Colour, a lovely tone of rosy terra-cotta. First-class certificate to Mr. T. Bullimore, Grove House Gardens, Roehampton (November 15).

Fanny Lemon.—It is many years since the list of incurved varieties has been so much enriched. This is an incurved bloom of superb form and of high exhibition quality, having florets of medium width and good length that build a flower of good substance and considerable depth. Colour, deep primrose yellow. First-class certificate to Mr. Thorp (November 15).

Eva Smith.—Still another massively built incurved bloom of good form and splendid exhibition quality. In this instance the florets are of medium width and of good length, and build a flower of beautiful form. As a white novelty it is an acquisition. First-class certificate to Mr. N. Molyneux, The Gardens, Rookesbury Park, Wickham, Hants (December 1).

Mrs. Rolfe.—This is a medium-sized Japanese flower suitable for market or decorative uses. It is a loosely built flower, having florets of fairly good breadth. Colour, shell pink, with greenish yellow centre. Commended. From Mr. Thorp, Worthing (December 1).

Silver Tip. — Another Japanese decorative variety suitable for market purposes. The flowers are of medium to large size, having long florets of medium breadth that reflex in very even fashion and build a bloom of drooping form. Colour, deep rose, tipped white. First-class certificate. Also from Mr. Thorp (December 1).

Mrs. Godard.—In this instance the Japanese flowers, which are decorative and well adapted for market purposes, are of medium size, full, and of even form. The colour may be described as reddish bronze, which is well displayed in the reflexed character of the blooms. Commended. From Mr. Thorp (December 1).

Russet.—This is a superb decorative Japanese flower, and of a size that market growers can fully appreciate. The florets are of medium width, and build a bloom of pleasing drooping form. The colour, however, is its chief beauty, and this may be described as a very effective and bright tone of bronzy red, very beautiful under artificial light. First-class certificate to Mr. Thorp (December 1).

Mrs. G. Ferguson. — A very beautiful single variety of medium to large size, having three or four rows of florets neatly disposed round an ideal yellow disc. The plant is free-flowering and the sprays of blossoms of a kind that are valuable for decorative uses. Pure white. Commended. From Mr. G. Ferguson, The Hollies, Weybridge (December 1).

Baldock's Crimson.—Another very handsome Japanese variety that marketgrowers hold in esteem. It is a fine, full flower, having florets of good breadth that reflex and droop in pleasing fashion. To be seen at its best this variety should be disbudded. Colour, rich crimson. First-class certificate. From Mr. P. Ladds, Swanley Junction (December 1).

Miss Kathleen Wells.—A beautiful Japanese single-flowered variety of considerable promise for late displays. The florets are long, of medium width and droop at the ends, making an attractive flower. Colour, reddish crimson, with shaded yellow zone. First-class certificate to Messrs. W. Wells and Co., Limited, Merstham, Surrey (December 1).

Queen of the Solent.—This is a distinct and beautiful single-flowered variety, having several rows of rather narrow florets, and of a kind that market growers now have a distinct preference for. There is every evidence that it is free-flowering and is highly decorative. Colour, soft pink. First-class certificate. From Mr. A. J. Powell, Goldsworth Grove, Ryde, Isle of Wight (December 1).

Miss Muriel Smith.—An excellent example of a late-flowering Japanese decorative variety, especially well suited for market growers. The florets are long, and build a flower of spreading character. Colour, old rose; very beautiful under artificial light. First-class certificate. From Messrs. Wells (December 1).

A NEW LÆLIO-CATTLEYA.

ALTHOUGH many beautiful plants have been added to this bigeneric race during the last few years, we do not think any have been more beautiful than that shown in the accompanying illustration and named Lælio-Cattleya Nelthorpe Beauclerk. This was fully described under "New Plants" on page 594. It was shown by Messrs. Charlesworth and Co. of Hayward's Heath before the Royal Horticultural Society on the 23rd ult., when it received the high recognition of a first-class certificate.

THE NEW LÆLIO-CATTLEYA NELTHORPE BEAUCLERK. (*Two-thirds natural size.*)

THE WINTER CHERRY AS A STANDARD.

STANDARD plants of the Winter Cherry (Solanum Capsicastrum) are very effective and afford a change from the dwarf plants which fill so prominent a position during the winter months. Nice plants having a clear stem of from 15 inches to 20 inches, or more, may be produced in two years either from seed or cuttings. Their culture is much the same as would be followed in growing a standard Fuchsia or Heliotrope, differing only in minor details.

I prefer raising the plants from seed sown early in January and placed in a warm greenhouse. The young seedlings should be potted off singly into 3-inch pots when ready. Sifted loam and leaf-mould, with a small quantity of sand, suits them well at this stage. Place the plants near the glass, and when the roots reach the sides of the pots give them a shift into 4-inch pots. A little decayed manure should be used at this potting to assist the plants in making free growth. As the season advances arrange the plants in a cold frame, admitting air when the weather permits. A neat stake must be provided and the young plant tied to this as growth advances. All side shoots must be pinched out. In June plant out in rich soil and in a sheltered position, a distance of 15 inches between the plants being suitable. Apply water thoroughly in the absence of rain, also hoe between them frequently during the summer.

By September the plants will be from 15 inches to 20 inches in height. They must then be taken up and potted, using pots just large enough to accommodate the roots with a small quantity of soil around them. Stand them in an unheated pit or frame, and keep them close until they become established. Spray them overhead twice daily during bright weather. During the winter the plants should be placed in a cool house secure from frost, and kept rather on the dry side.

In March start them into new growth by placing them in a warmer temperature and increasing the supplies of water. A top-dressing of good soil is also a material aid. As soon as growth commences pinch out the tips of the plants. This induces the production of side shoots, which will form the foundation of the head. The treatment followed the second season is the same as advised for the first season; but when planting out give a space of 20 inches between the plants and be careful that the stems are secured firmly to a straight stake. No further stopping is required unless any more shoots are produced from the base of the plants, in which case they must be pinched out as soon as seen. Berries will be produced during the autumn, and with careful attention given to potting and other details very pretty and attractive plants will be produced, and these are very useful for various decorations. By growing on the plants for several years very handsome specimens of this popular plant may be obtained. C. RUSE.

THE FLOWER GARDEN.

SWEET PEA CHAT.

NEVER in the whole history of the Sweet Pea has the purchase of seeds been attended by such an amount of worry and persistence as prevails this season. Scores of people have written round to every retail dealer in the country for supplies of seeds which they have been plainly informed have completely failed, and occasionally the letters sent are not conspicuous for their politeness, since some would-be growers do not hesitate to say that they do not believe that a variety could fail. They argue that because they can buy as many seeds of Countess Spencer as they care to have, Earl Spencer and Nancy Perkin must be equally abundant; but they soon find their mistake when they are asked sixpence a seed for the latter, and they may think themselves exceedingly fortunate to get them at that figure. So wretched was the harvest that even at this late date all the catalogues are not in.

HISTON SEEDS.—Steadily and surely Mr. Unwin has made himself a most enviable reputation. He would be the last man in the world to assert that it was impossible for one of his stocks to throw a single rogue; but there is not the slightest doubt that his strains are among the most reliable to be procured anywhere in this country or out of it. It is a matter for the keenest regret that the crop of Mrs. W. J. Unwin failed. It will be remembered by visitors to the Reading trials as a beautiful rose flake which was honoured with an award of merit by the floral committee of the National Sweet Pea Society. Everyone hopes that a supply will be forthcoming next season, and if it is, then buyers should either get it from Mr. Unwin himself or see that the packets in which it arrives are those of the raiser, for the true strain will not be procurable from any other than the fountain-head. The Histon stock of Clara Curtis, which received a first-class certificate at Reading, is catalogued, and there can surely be no need for me to eulogise it after the recognition given by the floral committee. Mr. Unwin makes a curious error in cataloguing Nancy Perkins. The name is, of course, Nancy Perkin, and it seems a pity that a mistake that is so common with the general public should be perpetuated by the introducer. Sixpence a seed is the price, and it is safe to affirm that the supply will not be anything like equal to the demand. Other Histon novelties are Gladys Burt, salmon pink on a primrose base; Edna Unwin, intense orange scarlet, said to be a great advance upon St. George; Douglas Unwin, rich maroon; Doris Burt, a sunproof scarlet; Frank Unwin, lavender, suffused mauve; Arthur Unwin, standards rose, shaded cream, wings cream, suffused rose; and Blue Flake, light blue on a white ground. Having the source in view, all of these should be worth a trial. Needless to say, Mr. Unwin lists all standard varieties.

HAVANT SEEDS.—Mr. William Lumley is entitled to the thanks of all lovers of Sweet Peas, if only for the reason that he gave to the world those two magnificent varieties Constance Oliver and Marjorie Willis; the former is a general favourite for its refined beauty, while the latter would have been equally popular had it been more reliable in the first season of distribution. From this source are announced no fewer than five novelties. These are Buttercup, cream; Glitters, which is described as Evelyn Byatt in Spencer form, and should, therefore, be welcome for its rich colour; Liberty, a crimson Spencer; Lizette Lumley, a Jessie Cuthbertson Spencer; and Mistress Lumley, a cream ground Spencer, lightly flaked in the centre, but with what colour Mr. Lumley omits to state. The same distributor offers also Mrs. E. Noakes, lavender, and Moneymaker (this name recalls the Potato boom which died a sudden death), white. SPENCER.

ACANTHUS SPINOSUS IN A CAMBERLEY GARDEN.

PLANTS FOR WATER-SIDE.

IN reply to "G.," the following are excellent plants for moist soil. All the following flowers and foliage plants may now, if the weather is suitable, be transferred to the places they are to adorn, with the exception of the Bamboos—these must not be planted before April. The following should be planted on the bank and well back:

Spiræas.—Noble plants of strong growth with a wealth of flowers in summer. S. gigantea, as the name indicates, is very tall, a superb kind for the end of the lake; it is not suitable for small ponds or streams. S. rosea and the Goat's-beard (S. Aruncus) should be used for the latter.

Kniphofias, or Tritomas, and popularly called Flame Flowers or Red-hot Poker Plants. Glorious colouring by water-side, and should be more used for this purpose.

Senecio Clivorum.—One of the newer flowers that love a moist soil. It develops rapidly, has bold foliage and tall stems bearing yellow flowers.

Arundo Donax.—One of the Reeds, a beautiful grassy plant.

Rheums.—Only to be used for large ponds or lakes, owing to the size of the leaves. The Rheums belong to the family of Rhubarb.

Gunneras.—The same remarks apply to these noble plants.

Eulalias.—A grassy Reed-like family, as graceful as anything one can plant in the garden, whether by the water-side or elsewhere.

Irises.—The rich yellow I. aurea, I. gigantea, and I. Monnieri may be used with charming results.

Bocconia cordata.—A shrub-like plant with grey-green leaves and cinnamon-coloured flowers.

Epilobiums.—Plants that must have moisture, and send up flowers of rich colours.

The following group is adapted for the water's edge:

Astilbe.—These are beautiful bushy plants, with flowers sometimes a misty rosy shade, sometimes white. A. rivularis, A. chinensis and A. Davidii form a good selection.

Spiræas.—These are among the more popular of hardy plants. S. palmata makes a quick growth, and in the summer is a sea of crimson flowers.

Iris Delavayii.—An uncommon kind of great charm.

Trollius.—This is the Globe Flower family; the variety called Orange Globe is of an intense colour, which is indicated by the name.

Lily.—The tall Lilium or Swamp Lily (L. superbum) and L. pardalinum should be planted in bold groups.

Lobelia.—Insufficient use is made of those glorious tall Lobelias, L. fulgens and cardinalis, which require a moist soil to bring them to their fullest beauty.

Montbretias.—These are well-known garden plants, but seldom seen by the side of water.

Other plants of importance comprise Primulas japonica and rosea, Iris Kæmpferi, the Marsh Marigolds, of which the finest is Caltha polypetala, the Loosestrifes or Lythrums; and, by the extreme edge, Acorus japonicus fol.-var., distinguished by its variegated leaves, the Porcupine Rush (Scirpus zebrinus), the tall Buttercup (Ranunculus Lingua), the double Arrow-head and the pretty Butter Bean (Menyanthes trifoliata).

ACANTHUS SPINOSUS IN A CAMBERLEY GARDEN.

THE accompanying illustration is from a photograph kindly sent to us by Miss Eyton, The Limes, Camberley, and represents an excellent plant growing in her garden there. This Acanthus makes a very showy plant during the summer months, the curiously shaped flowers being of a purplish hue. It delights in deeply worked and moderately rich soil, and should be given an open and rather isolated position.

GARDENING FOR BEGINNERS.

PLANTS FOR DECORATING ROOMS.

GARDEN WORK WEEK BY WEEK.

GREENHOUSES AND FRAMES.—Where plants of Begonia Gloire de Lorraine and its allies were flowered early, the blossoms will by now be faded, and in this case the shoots should be pruned back to about half their length and the plants kept rather dry at the roots and in a cool temperature for a

1.—A GOOD SPECIMEN OF DRACÆNA SUITABLE FOR ROOM DECORATION.

few weeks, so as to give them a slight rest. About the third week in January they may be stood in a warmer house and lightly syringed with tepid water, when they will soon produce young growths suitable for making cuttings. Later plants that are coming into flower should be given plenty of room in the lightest part of the house, each plant being so placed that its full beauty is revealed. Freesias at this season are liable to become infested with green fly, and this must be kept in check either by syringing with some insecticide or by fumigating the house. All plants intended for house decoration at Christmas should at once be placed in a cooler part of the greenhouse or in cool frames, so as to harden them gradually before they are taken into the house. See that all foliage plants intended for this purpose are thoroughly cleaned.

Fruit Garden.—The pruning of all kinds of hardy fruits, Gooseberries excepted, must be pushed on whenever the weather will allow this being done, as the sooner the work is completed the better. Where it is intended to graft Apples, Pears or Plums in March next, select some of the best young growths that have been pruned away, tie them into bundles, label each bundle plainly, and then place the lower end of each bundle in the soil in a shady position. By doing this growth will be kept dormant until the stock is thoroughly active and the shoots will be kept from shrivelling. Generally speaking, plump shoots slightly thinner than an ordinary lead pencil are the best to choose. Keep an eye on the Strawberry-bed, as weeds frequently appear quickly during a spell of mild weather. These should, of course, be pulled up and taken away, as they are undoubtedly robbing the soil of nutriment which would be made use of by the Strawberries later on.

Vegetable Garden.—Onions in store will need looking over at this time, as it is almost certain that some will be showing signs of decay. All such should be removed and, if too far gone to be made use of, burned or otherwise destroyed. Where the Onions were roped at the time of gathering, as advised on this page, they will be keeping better than those stored in boxes, although if the latter are shallow, so that the bulbs are only one thick, they will keep moderately well. A cool, airy place where frost is just kept out is the best for storing. Many people prefer Parsnips that are freshly dug to those that have been stored, and to facilitate lifting during frosty weather the bed should be covered with a 6-inch thick layer of Bracken or strawy material, otherwise the ground will often be frozen too hard to allow one to lift the roots. Where Globe Artichokes are grown, the plants should be protected from frost by mulching around them with long, strawy manure or other cold-resisting material, as the plants are likely to suffer if subjected to a prolonged spell of frost.

Trees and Shrubs.—During frosty weather, when a good deal of other work cannot be done, attention should be given to those trees and shrubs that need it. In the case of old specimens, there are often dead branches to be removed, and this can now be attended to. In cutting them away do not leave any projecting snags, and, if possible, cut well into live wood, as the wound will then have a chance of healing. Pare the cut surface smoothly and then coat with Stockholm or coal tar. Transplanting may be done when the weather is not frosty, choosing the hardiest kinds for removal at this season. Should hard frost set in shortly after this moving, it will be well to mulch over the roots of the newly planted specimens with some littery material, as if this is not done even the hardiest kinds are apt to suffer when they have recently been disturbed. See that birds do not steal the berries of Holly and other trees and shrubs needed for Christmas decorations. In some cases, especially during very cold weather, it is necessary to net the plants to make sure of a good supply. Sprays of bright-berried plants intended for decoration should not be cut earlier than is absolutely necessary, or the fruits will lose much of their lustre. H.

PLANTS FOR ROOM DECORATION AND THEIR CULTURE.

SOME months ago I dealt with a series of plants that were specially well adapted for room decoration; but as they embraced only a few of the many beautiful subjects that have been tested and used for this purpose, a further series of good things may be welcomed by the reader who is a beginner in plant culture. The present occasion seems to be most opportune for calling attention to room plants, because the dull and dreary winter days are now with us, and we naturally desire to make our homes as bright and attractive as possible by the aid of plants in variety that are inexpensive and, therefore, within the reach of all.

Everyone who thinks for a moment must be convinced of the unsatisfactory conditions prevailing in most rooms during the winter season, and to keep foliage plants in good health during this period must necessitate constant attention to their requirements. Accumulations of dust and dirt on the leaves of room plants are inevitable, and as plants breathe through their leaves, the reader will at once appreciate the need for the persistent removal of such undesirable accumulations. The leaves of Palms, Dracænas, Pterises, Aspidistras and similar subjects should be sponged frequently. Tepid water should be used for this purpose, and both sides of the leaves should be sponged; twice a week is not too often to treat the plants to this wholesome cleansing. In really mild weather give the plants a good syringing outdoors, allowing them to remain there a short period to drain. When syringing the plants outdoors use tepid water.

Watering, too, is another most important item of culture, and yet it is a matter that is little understood by the majority of those who wish to make the most of their room plants. More Ferns and other beautiful-foliaged plants are lost through ignorance in watering than probably from any other cause. Almost invariably the plants are either overwatered or allowed to get so dry that they can never be watered satisfactorily by the ordinary method. So many persons seem to think that plants indoors need to be watered so many times a week, periodical waterings in their opinion being the one thing to bear in mind. There is no greater fallacy. A plant should be watered only when it is in need of a supply through becoming dry or somewhat dry at the roots, and I wish to emphasise the importance of observing this rule most rigidly. When the soil is dry—not dust dry—give the plant a thorough soaking, so that roots and soil are both moistened throughout. Should any plants have been neglected and become so dry that the ball of soil and roots will quite readily shake out of the pot, such plants should be stood in a vessel of slightly tepid water until they are thoroughly saturated. When plants are watered too frequently, *i.e.*, given water when they do not really need it, they often suffer in consequence of the soil becoming soured. When watering, always remember that the small

2.—AN ELEGANT FERN, PTERIS TREMULA, THAT WILL STAND ROUGH USAGE, AND IS THEREFORE SUITABLE FOR GROWING IN ROOMS.

3.—AN ELEGANT PALM, COCOS WEDDELLIANA, WHICH MUST NOT BE SUBJECTED TO COLD DRAUGHTS.

space between the surface soil and the rim of the pot is often quite insufficient to meet the requirements of the plant when filled once only; it may be necessary to fill this space two or three times in succession. Also, remember to keep the plants out of draughts, as this is a constant source of failure. The reader will readily understand what must be the state of plants in rooms when the atmosphere is hot and dry owing to the presence of fires and gas and to the vitiated character of such conditions. Doors and windows left open so that a draught is created must necessarily cause currents of cold air to do considerable harm to the plants; for this reason avoid draughts.

Light is an important factor in maintaining room plants in good health. All too frequently room plants are disposed a long way from the light of the window, in which circumstances they must suffer. The absence of light causes the plants to sicken and become weakly, so for this reason they should be accorded light situations from time to time to recuperate.

Ventilation is also a matter of much importance. Even in the coldest weather the windows should be opened slightly, especially in rooms where gas is burned. Unless this rule is observed, some of the more tender Ferns and other of the choicer foliaged plants will most certainly suffer. Always use slightly tepid water when watering room plants in the cold months of the year, and never allow any plants to stand in saucers of water, as so many growers are prone to do; this causes the roots to rot and the plants to fail.

In continuing the series of room plants that were dealt with in THE GARDEN of June 5 last, I will call attention to the Dracænas. These are handsome foliage plants, many of which are well suited for room decoration. They are not difficult to cultivate, especially the green-leaved kinds. As readers may wish to repot their plants after the winter is past, they will be glad to know this work may be done in March. A suitable compost in which to grow this subject should comprise two parts of peat, one of loam and one of charcoal and silver sand, all well mixed together. Good species are D. australis (a very elegant plant), D. indivisa, D. gracilis, D. rubra and others.

Fig. 2 represents one of the most graceful of the many delightful Pterises that are grown. The plant under notice is largely grown by market men, and is generally known as Pteris tremula smithiana. As the illustration faithfully portrays, it is a charming plant, but does not like a vitiated atmosphere, such as that which prevails in a gas-lit room. For this reason the plants should be removed when the gas is used. The tender fronds soon wither and fail, but in ordinary conditions the plant will succeed very well. The plants are usually repotted in March, and if a compost of loam and leaf-mould be used, with the free admixture of silver sand and a sprinkling of charcoal, the roots will respond very readily. Other good and interesting Pterises are P. serrulata densa, P. Victoriæ, P. Mayii, P. Wimsettii, P. cretica, P. c. albo-lineata and many others.

Cocos weddelliana is perhaps one of the most graceful of all Palms; but, because of its slightly higher cost and possibly its less hardy character, it is not so often met with as are many other plants. No one can deny its beauty, however, as a glance at the illustration will show. Considerable care needs to be taken to keep this plant in condition, and it must not be subjected to great variations of temperature; neither does the plant do well in gas-lit rooms. With due care for its requirements, there should not be much difficulty in maintaining the plant in a healthy state. Fig. 3 shows a small plant in a 6-inch pot. Since last used indoors this specimen has been kept in a greenhouse not by any means warm. In frosty weather see that this Cocos is kept away from the window, or it will soon begin to fail. This is one of those plants that need to be placed in a greenhouse from time to time to recuperate.

Fig. 4 represents a Davallia, in which class of plants there are so many interesting and pleasing forms. Many of them are fairly easy to manage. Most of the greenhouse species are suited for room culture, provided gas is not burned. The rhizomes from which the leaves are evolved are curious and interesting, and, in consequence of their peculiar character of growth, the plants develop beautifully in baskets. Some of the better species are D. pallida (syn. D. mooreana), D. bullata (Squirrel's-foot Fern), D. Mariesii, D. canariensis (Hare's-foot Fern) and a few others. Some growers may argue that the Davallias are not suited for room decoration, but I am convinced, if care be observed to keep the plants moist, they will do very well. D. B. C.

TOWN GARDEN.

GREENHOUSE AND FRAME PLANTS. The floral beauty of the garden will now be confined mainly to the two structures above named. Much pleasure can be obtained by simply rearranging the plants on the stages. If the work is carefully done, the plants will be considerably benefited by such rearrangement, too, as some specimens will be brought to the light more fully. It is not a wise plan to mix together both plants that are in full flower and those that are just forming their flower-buds. Plants bearing flower-buds need keeping fully exposed to the light, as well as others—more so in many instances—that have their blossoms fully open. Then it is important that no green moss be allowed to cover the surface of the soil in the pots; but where moss has already accumulated, the best way to remove it is by using a pointed stick, with which the top thin layer of soil must be removed with the moss itself. Do not put on top-dressing soil at this season, as it would not serve any useful purpose, and certainly it would hamper the cultivator in the work of watering, as the added compost would often appear, and really be, quite moist while the soil in the body of the pot was getting very dry. Leave all top-dressing and repotting work until the early part of the new year.

CLEAN POTS.—All flower-pots must be kept clean. A pot well washed and free from the green, slimy substance so often seen is not at all an eyesore, but a dirty pot is. Moreover, a soiled pot is inimical to the good health of the plant, but a clean one is beneficial. If there is much difficulty in getting rid of the green, slimy substance by merely washing and scrubbing with clear water, rub on a little dry, unslaked lime first, let it remain on for about twenty-four hours, and then use the clear water and the scrubbing brush.

SPONGING LEAVES.—There is no time more opportune for the work of sponging the leaves of foliage plants than the present. The leaves are firm and tough now, having matured after a season's growth, and so any insecticide used will not be so liable to injure them, while the insect pests are readily destroyed. Even when the leaves of such plants as Dracænas, Aspidistras and Ficus elastica are free from insects, it is wise to sponge them with clean, tepid water occasionally, as it keeps them free from dust and more healthy.

TYING UP CLIMBERS.—In a few hours much valuable work may be done among the climbing plants in the greenhouse. Where the branches are overcrowded, some of the weakest may be cut out altogether, the foliage of the others cleaned, and all then neatly re-tied to the wires.

BULBS.—Much interest is now centred in the bulbs in pots. The earliest batches will be ready to bring out from their covering material. This work must be done very gradually; it will not do to suddenly expose the bulbs and their young blanched shoots to the full light and air, else a serious check will be given. When the young shoots are about 2 inches long, they are quite fit to be brought out from the ashes, and the first position in which the pots should be placed is one in a frame. All inverted pots may be removed, but the glass must be covered with a mat or some old sacks for several days to exclude light and

4.—A SPECIMEN DAVALLIA, WHICH MAKES A GOOD ROOM PLANT WHEN IT CAN BE KEPT MOIST.

sunshine. Then air must be admitted and the mats removed as the young shoots commence to turn green. From the frame the plants should be taken to the greenhouse or the dwelling-room window. Water at all times with great care, and give some stimulating food when the flower-stems begin to show freely; this will strengthen the latter and finer flowers will result. The best position for the growing bulbs in the greenhouse

is on a shelf near the roof glass at first. Here a very sturdy growth of stem, leaves and flowers will be encouraged, and then the plants will be all the more fit to be placed on a lower stage, where the final flowering should take place. Bulbs that are first started in boxes, and afterwards transferred to flower-pots, should be so shifted while they are young; that is, before the flower-spikes get far advanced. If the work is then very carefully done, the plants will not suffer any serious check. By bringing on the plants in batches a constant display of blossom will result. AVON.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR OF THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Planting a herbaceous border (*J. Gibson*).—In a 6-feet-wide border you would have room for, say, three rows of groups, a group to consist of three or five plants usually to give effect; or, if you prefer it, a greater variety of single plants might prove more serviceable if a little less effective. In the back row you might have Hollyhocks, Asters Novæ-Angliæ Mrs. F. W. Rayner, W. Bowman and pulchellus, with such Larkspurs as La France, Lize, Carmen and Mme. Violet Geslin. Tall Sunflowers for the same row would include Miss Mellish, multiflorus maximus and tomentosus. Rudbeckia Autumn Glory, Bocconia cordata and Aconitum Wilsonii would also be suitable in this line. In the second row, Anchusa italica Dropmore variety, white perennial Pea, white and blue Lupinus polyphyllus, Lychnis chalcedonica, Lilium candidum, L. testaceum, Phlox Mrs. E. H. Jenkins, Phlox Flambeau, Scabiosa caucasica, S. c. alba, Veronica subsessilis, Iris aurea, I. Monnieri, Lychnis pycnostachya, Helenium Riverton Gem, Gaillardia grandiflora, Aquilegia chrysantha, Trollius Orange Globe, Eryngium oliverianum, Campanula grandis, C. g. alba, C. persicifolia grandiflora, Aster cordifolius Ideal, A. c. major, A. Novi-Belgii Arcturus, A. N.-B. William Marshall, Anemone japonica, A. j. alba, Cimicifuga simplex and the like. In the front row might appear Aster acris, A. lævigatus, A. Amellus, Sedum spectabile, Armeria Cephalotes, Anemone sylvestris, Campanula Moerheimii, C. carpatica, Achillea alpina, single and double Pyrethrums, Irises of the Flag section in variety, Clove Carnations, Geum coccineum fl.-pl., G. Heldreichii, Heuchera sanguinea Walker's variety, H. Flambeau, Rudbeckia Newmanii, Stenactis speciosa, Thalictrum aquilegifolium, Statice latifolia and others, with such Narcissi as Emperor, Sir Watkin, Barri conspicuus, P. R. Barr, Empress and Golden Spur in breaks between the plant groups. It is possible, too, you might have room for marginal plants, such as Aubrietias, Megaseas, alpine Phlox, mossy Saxifrages, Hepaticas and the like. Remove the fruiting rods of the Loganberries each year, and retain the strongest of the newly made shoots for next season's fruiting. The growths may be trained to poles erect, to wire-strained fences or to walls, as is the most convenient. You cannot improve very much upon well-decayed horse or stable manure for the Strawberry patch.

Propagating Lithospermum prostratum (*An Old Subscriber*).—August and September or April and May, provided always that young and unflowered shoots are employed, are the best times, and the best material is the young shoots of 2 inches in length that are capable of being torn from the parent stem, each with a heel attached. If such as these are detached as suggested, they may be inserted without further preparation. A cold frame or cool greenhouse is best, but the cuttings must not be exposed to direct sunlight. Finely sifted peat, loam and sand in equal parts make an ideal mixture, or the cuttings may be inserted in pure sand.

Treatment of the Belladonna Lily (*Joseph Bacon*).—The flower you send is Amaryllis Belladonna, commonly known as the Belladonna Lily. We do not quite understand what your treatment has been, and your reference to "four boxes of them" is not helpful. If you are growing these in boxes instead of pots or tubs, it is highly probable that the plants are more or less starved. The tubs for these should be of good size, so that the bulbs could be buried 6 inches deep. The soil should be rich and mixed with sand and old mortar. Generous feeding of the plants with manure-water should be given throughout the period of growth, with abundant supplies of root moisture also. When growth is completed the plants should be rested in the hottest and sunniest position at your command, and given this treatment the bulbs should flower, provided that a vigorous, unchecked growth has been made. Without seeing the plants we can only surmise the cause of the failure, but perhaps in what we have said you might discover some useful hint. If not, write us again giving fuller particulars.

Flowers for wood and shrubbery (*Hecate*). You need have no misgivings about planting any of the subjects you name, provided there is sufficient depth of soil present and that the ground is not too dry in summertime. The St. Brigid Anemones would be best near the margins, while the Tulips should thinly spread themselves, as it were, over a more extended area of ground. Many of the cheaper Daffodils should do admirably, while Lilium pardalinum, L. candidum and others would show to advantage. Any Clematis should occupy a sunny position where the plants might ramble over tree or shrub, while Evening Primroses should be added to the other plants you already possess. Rope, that is, hempen rope, would last for a time, but sooner or later it would decay at the point of fixture with the supports, and your display would be lost. Chains would be better and would remain unaffected by the changes of weather. To obtain tall standards for the Rose, a few very tall Briar stocks should be grown for the purpose, and when matured and of the right height budded in the usual way.

TREES AND SHRUBS.

Hints on planting trees (*Germany*). If you can obtain some fairly good loamy soil to add to your natural soil for the trees you propose planting, it will be far better than using manure. Leaf-mould is a good rooting medium, but not fresh manure. Trench the ground well to a depth of 2 feet, taking out 6 inches or 8 inches of the natural soil from the bottom of each trench, and make up the deficiency by mixing good loam with the other soil. Any manure you have may be applied as a mulch next May. Tilia dasystyla is a very good dense-growing tree, but no quicker growing than the Horse Chestnut, and it is quite likely that the latter will be the best tree for you to use. If you decide to use any manure, use well-rotted farmyard material, and place it in such a position that the roots will not come in contact with it for some time.

Information about shrubs (*James Robertson*). In New Zealand Metrosideros robusta is known as "The Rata." The name, however, is not held by that plant alone, for from the "Index to Native and Scientific Names," by Dr. Forbes Watson, we learn that, in Cynghalese, Oryza sativa (the Rice) is known under the name of "Rata"; while the Ghorkas call Xanthochymus pictorius (Garcinia Xanthochymus) "Rata." Rata is also used in conjunction with numerous other words to form a long series of compound names for various plants.

Protecting Hydrangeas (*Hydrangea*).—The common Hydrangea needs protection during the winter as far south as London, for, even though the plants may not be killed outright, the terminal buds are likely to suffer and consequently the flowers will be but few. The question of Hydrangeas producing blue flowers has given rise to a good deal of controversy, for, however treated, success is not always certain. The most successful methods are watering the plants about twice a week with a solution of sulphate of iron, a teaspoonful being dissolved in a gallon of water, or 1oz. of alum to a gallon of water. To prepare the alum it should be first crushed and dissolved in a little hot water.

Evergreen climbers for wall (*Enquirer*).—The covering of a wall with flowering evergreen climbing plants is not an easy matter, and is rendered the more difficult by your mention of Roses in particular. Seeing that those species and varieties which are most nearly akin to evergreen are not well suited for growing on a wall unless it be of unusual height—and of this you tell us nothing—one of the best of Roses for a wall is the white-flowered Aimée Aibert, and established plants of it will be covered with its blooms and often reach to 12 feet or 18 feet across. W. A. Richardson is excellent on a wall, if not in too hot a position. The Wistaria is a lovely wall plant alone, and should be more frequently employed, as nothing can surpass its mauve-coloured trusses when in bloom. Jasminum officinale affine is a grand plant, while Escallonia macrantha, Ceanothus rigidus, C. veitchianus and C. Gloire de Versailles are all admirable. Azara microphylla, Cratægus Pyracantha, Choisya ternata and the variegated form of Euonymus radicans are all excellent for wall covering. If these are not likely to suit you, please write us again stating the height of the wall and its aspect.

THE GREENHOUSE.

Eucharis going wrong (*S. H. Baker*). It is more than probable that the roots of your Eucharis are in a bad state, and if such is the case, no applications of mite-killer, or anything in that way, will have a beneficial effect. We advise you to keep the plants as they are till February, taking care not to over-water them, as an excess of moisture quickly causes even healthy roots to decay. Then towards the latter part of February the plants must be thoroughly taken in hand. First turn the plants out of their pots and shake off as much as possible of the old soil. Then wash the bulbs and roots quite clean in tepid water, and lay them on a bench for an hour or two to drain. By washing the roots you will be able to ascertain their condition exactly, and it is very probable that many of them will be more or less decayed. All such must be cut clean away, leaving only the quite sound roots attached to the bulbs, after which they must be repotted. For this purpose care must be taken not to have pots too large, and in all probability they may, with advantage, be considerably smaller than those in which the plants have been growing, for the all-important item is to encourage healthy root-action, which can never take place if the bulbs are surrounded by a large mass of soil. The pots must be quite clean and effectually drained, a suitable potting compost being two parts yellow loam to one part of leaf-mould and nearly a part of rough silver sand. In potting, the bulbs should be put at such a depth that the upper part or crown is just on a level with the surface of the soil, which must be pressed down moderately firm. When finished, place the plants in a stove where a night temperature of 60° is maintained, rising, of course, during the day. If they can be plunged in a gentle bottom-heat, so much the better. The plants must be shaded from the sun's rays, and care taken not to over-water, at all events, till the roots are again active, though a liberal amount of atmospheric moisture will be beneficial. As new roots form and take possession of the soil, the foliage will gradually assume a more healthy tint and become firmer in texture, after which the mite is not likely to trouble you. Healthy plants do not need as much shading as sickly ones, but, in any case, they require protection from the rays of the sun. Very little fire-heat is needed during the summer months, but in winter a minimum night temperature of 55° should be maintained, rising, of course, 10° or so during the day.

Information about Hydrangeas (*C. B. M.*). Of the Hydrangeas concerning which you enquire, Mariesii is as hardy as the common kind. It should, during the winter, be kept as cool as possible, apart from actual frost, and the soil must not be allowed to get too dry, though, of course, it will not need anything near the same amount of water as when growing freely. Hydrangea paniculata is absolutely hardy, and the plant will be all the better if plunged out of doors during the winter. Then about the end of February the plant may be pruned. In pruning, last year's shoots should be cut back to within two or three eyes of the base, and any weak and exhausted wood cut out. This need not be taken into the conservatory till the buds are visible, but, of course, it must be well supplied with water after growth recommences, while an occasional dose of liquid manure will be helpful. Hydrangea Mariesii will need no pruning unless it is crowded with weak shoots, in which case they may, during the winter, be thinned out. It may be started in the dsring. The Spiræas may be started again in February.

Names and information about Orchids (*S. Clarke*).—The enclosed flower is Dendrobium Ainsworthii, a garden hybrid, the parents being D. nobile and D. aureum or heterocarpum, as it is sometimes called. The pseudo-bulb (No. 2) is, we think, a species of Eria, several of which are natives of the Himalayan district, but, of course, without further information it is impossible to say more. It may be Eria convallarioides. Specimen No. 3 is Dendrobium densiflorum, a beautiful rich yellow-flowered species. The eyes towards the apex of the pseudo-bulb are quite natural and contain the flower-clusters in embryo. When in this stage the plants should be kept quite dry at the roots in a temperature of 55° to 65° till the flowers begin to push, when they must be watered, increasing the supply as the blossoms develop.

Bouvardias going wrong (*C. M. W.*).—The leaves of the Bouvardias turning brown is undoubtedly caused by an error in cultivation, but what it is we are, of course, unable to say. It may be caused by a smoky atmosphere, while Bouvardias are particularly susceptible to injury from sulphur-laden fogs which prevail in the London district during autumn and winter. A slight escape of sulphur from the greenhouse fire may cause the injury complained of. A book that we can strongly recommend is "The Perpetual Flowering Carnation," by Montagu C. Allwood, price 2s. 3d.

Wintering Cannas (*Royston*).—Your better plan will be to take up the Cannas without further delay, choosing, if possible, a dry day for the purpose. Then cut off the stems at about 6 inches from the roots, which last should be laid out on a greenhouse stage, or in a shed where they will be safe from frost, for a few days to dry. When dry most of the soil will come off from the rhizomes, which should then be laid in pans or shallow boxes and covered with dry soil. They may then be wintered in a greenhouse, frost-proof shed or cellar. No water will be required till the new year, and then only in the event of the soil being dust dry. If you have a greenhouse available they may be potted about the end of February, and will then be good plants by bedding-out-time. Should you desire to increase the stock, the plants may, in potting, be divided into two or more pieces. You are quite right in thinking that Cannas will last for several years. The varieties whose blossoms are in colour yellow, dotted more or less with red, are somewhat more delicate in winter than the others.

ROSE GARDEN.

Pruning Tea and Hybrid Tea Roses (*Mrs. H. B.*).—Yes; you will do well to prune the bushes as indicated in your diagrams. There are always a number of basal eyes ready to break out, and this severe pruning gives the best results with Roses used for bedding purposes. If the plants pass through the winter uninjured, which is extremely doubtful, you could retain the growths from 5 inches to 6 inches long and still obtain a good display; but as a rule the growths become frost-bitten, and it is rarely advisable to retain doubtful wood. (2) If the bone-meal is applied at pruning-time this would do. Give the cow-manure now, but we should advise having it covered with soil, either by digging it under the earth carefully or by covering some soil over it. (3) Clematis Jackmanii should be cut back to within 12 inches or 18 inches of the base each year if you desire the flowers to appear low down. If not pruned at all the blossoms appear on the top of the growths.

Fowl-manure for Roses (*S. F. Seargeant*).—You could very well utilise this manure on the Rose-beds now. Do not put it on too thickly. It would be a good plan to mix it with the same bulk of dry earth, and then scatter the mixture on the surface, digging it in during the spring. If used on the lawn, you should have the manure rubbed up very fine and mixed with some old potting soil, all to be passed through a fine sieve.

Wattled hurdles for Roses (*M. L. Smyth*).—We do not know where you could procure these hurdles, but any maker of the ordinary hurdles would make some for you. Explain to him that you require some made something after the manner of a hamper lid; or probably you could get a basket-maker to supply them. We do not know where you can obtain the frames with transparent canvas. The Willesden Canvas Company supply the material which is known as Duroline, and any handy-man would make you some frames to tack the material on.

Pruning Tea Roses (*F. B.*).—When your plants of Tea Roses become leggy, you should cut back to the ground some of the older growth; in fact, each season one or two of the oldest growths on each bush should be cut hard back. Some seasons the winters leave us no choice but to cut all back hard. An alternative plan is to bend over such growths, securing them nearly to the ground by means of string attached to pegs. New growths will then break up from the base. This is a good plan to adopt with all such Roses as Mme. Abel Chatenay; that is, to peg over one or two growths each year, instead of pruning the same severely. Old, worn-out growths are best cut down to the ground. If you adopt this plan for a year or two you will soon bring the plants into a bushy state. Mildew has been very troublesome in some gardens this season. We have found Cyllin Soft Soap a good remedy if applied persistently.

Rose foliage blighted (*S. F. Seargeant*).—Your Roses are affected with what is known as black spot. It is very prevalent this year, doubtless owing to the excessive wet we have had. You should have the leaves all gathered up and burnt, and the surface soil, too, would be all the better if burnt. Just remove the top to a depth of about half an inch, and having put it on a good fire made with garden rubbish, the ashes may be returned. Next spring, after pruning, spray the plants with Bordeaux mixture, and continue this spraying at intervals of a week or so throughout the season.

Roses attacked by fungus (*Northumberland*). The foliage sent appears to be attacked both by orange rust and sooty mould. This latter is caused by aphis and is not a parasite, but subsists upon the honeydew deposited by the aphis. If you take care to spray the plants thoroughly in spring and summer with Cyllin Soft Soap, you will keep this in check; but the orange rust will need the aid of a good fungicide, such as sulphide of potassium, spraying the plants as soon as pruned and continuing this at intervals of about ten days. All decayed foliage should be picked off and burnt, and also any that falls to the ground. An inch or so of top soil should also be raked off the beds and burnt, then returned to the beds. The Hybrid Perpetuals are generally most attacked by this fungus, and it is advisable always to keep them well apart from other Roses.

Roses in tubs (*E. E. H.*).—Undoubtedly the China or Monthly Roses and the lovely Polyantha tribe are excellent for growing in tubs. We are pleased you have been so successful. We do not think you would care much for Leonie Lamesch. It is a wonderful colour, but is disappointing when expanded. The others you name are most beautiful. We can highly recommend the following: Perle d'Or, Aschenbrödel, Marie Pavie, Aurore not Aurora, Laurent Carle, Harry Kirk, Betty, Mme. Jules Grolez, Lady Battersea and General Macarthur. These possess the habit more of Mme. Ravary and Phyllis, sorts that have done so well with you, and you could replace some of these with the sorts that have not done so well. The tubs already occupied with Roses should be top-dressed now. Remove about 2 inches of top soil and replace with a compost of loam two parts, well-decayed manure one part, and bone-meal at the rate of 2lb. to a bushel of compost, We presume you are satisfied the drainage is all right, otherwise it should be examined by turning the plants out and freeing the drainage of soil; but it will be well to avoid doing this if possible. The same compost would be best to use for the new Roses.

KITCHEN GARDEN.

Tomato spotted (*Perplexed*).—The cause of the spot on your Tomato fruit is, we think, not disease, but the result of the air in the house being too cold and damp. The fruit is dead ripe, and when in this condition it is found quickly to show signs of decay in such an atmosphere. Presuming you have some hot-water pipes in the house, the cure would be to apply a little heat in order to keep the air drier and warmer. If you cannot do this, the best thing for you to do will be to pluck off the fruits green, lay them in single layers on plates or boxes, and place in a warm kitchen where the sun can shine on them if possible. You will find they will ripen all right in this way.

Collection of six kinds of vegetables (*D. Phillips*).—Kinds we think are meant, not sorts. Provided the quality and size of the Artichokes were as good in August as in October, the dish should carry a point more, because the Globe Artichoke is very plentiful and in everybody's garden in October, but it is not so plentiful in August. It requires more intelligent culture to produce this vegetable in August than early in October, and, therefore, it is entitled to higher recognition when shown thus early. Border Carnations would be included with perennials.

FRUIT GARDEN.

Soil for Vine border (*A. S.*).—The only fault to be found with the enclosed specimen of soil is that it is of rather a light nature for a Vine border. Such being the case, the roots are very likely to extend some distance and probably make their way into an unsuitable subsoil, which is frequently the cause of Vines shanking, as yours have done. Still, Muscats are more liable than any others to this trouble, as it may be brought about by the berries being insufficiently fertilised, by fluctuations of temperature, or by the soil being too dry or too wet. If caused by the roots penetrating into an unsuitable subsoil (the most likely reason), your better plan will be to remove a good deal of the old soil by forking it away from the roots into a trench dug 6 feet or 7 feet from the stem. Carefully preserve all the fibrous roots you come across, and cut back any thick gross ones that may have gone into the subsoil. Replace the old soil with new, and lay the roots carefully in layers near the surface. Make the soil firm as the work proceeds. The soil should consist of turfy loam to which some old mortar rubble and half-inch bones are mixed. It may be necessary to put fresh drainage in the bottom of the border, as, if the border is not effectually drained, it is very important that it be so. Autumn, when the leaves have fallen, is a good time to carry out this work. The specimens sent are: 1, Elæagnus pungens variegata; 2, Acer campestre; 3, Pyrus Aria.

White stuff on Apple trees (*E. C.*).—Yes; it is American blight with which your trees seem so badly infested. The best way to eradicate it is to burn all the leaves as they fall and then to wash or spray the trees with caustic alkali, a burning wash which kills all insects it comes in contact with and cleanses the bark of the trees of all lichen or other growth, but does not harm them. This wash may be obtained from nurserymen and seed merchants with directions how to use.

Strawberry leaves diseased (*W.*).—The Strawberry leaves sent are suffering from a bad attack of the Strawberry fungus. If 75 per cent. of your plants are as badly affected as the sample sent, we should certainly refuse to hold them. The disease is common on plants growing in strong lands, and, although it seldom, if ever, destroys the plants, yet by its weakening effects on the growth of the Strawberry it undoubtedly militates against its successful growth and healthy cropping capacity. Flowers of sulphur, if applied in time, will arrest its growth, but nothing can bring back to good health plants so badly affected as these appear to be.

Strawberries and other fruits for sandy soil (*S. C.*).—The best early Strawberry and also for a general crop is Royal Sovereign, a standard variety of the highest excellence. As a later variety to succeed it, the best we know is Laxton's Utility. The best-flavoured sorts are British Queen and the Countess, and for preserving purposes the best to grow is Vicomtesse Héricart de Thury. It is a rather small variety; the flesh is firm and remains whole when preserved, and the flavour is sprightly and not too tart. Of dessert Gooseberries the following three are among the best: Langley Beauty (yellow), Forester (deep red), and Langley Gage, a deliciously flavoured white variety. The largest Red Currant is La Versaillaise, synonym Fay's Prolific. The finest of all Raspberries is Superlative. Any nurseryman advertising in our columns will supply these.

Young Peach and Nectarine trees dropping their fruit (*An Old Subscriber*).—Your description of the young Peach and Nectarine fruits shrivelling away on attaining the size of a Cherry undoubtedly points to the fact that the blossom was imperfectly fertilised, and, in consequence, the fruit failed to set properly; hence its withering away. Without seeing your trees or knowing more about them, it is difficult for us to give the reason for your trees failing to hold and mature their crops. There are many contributory causes which help to bring this about; but from the remark you make that your trees do not produce as much new wood as you would like, we are inclined to come to the conclusion that your trees are not in the robust state of health they should be in for the production of healthy pollen-laden flowers and good crops of fruit. The growth from the roots (termed sucker growth) is a further indication that the free flow of sap through the system of the trees is in some way interrupted; hence the activities of the roots find another outlet. The best way of improving the health of your trees, and to prevent any further dropping of the fruit, will be to lift them this autumn and replant in soil composed as follows: To every barrow-load of turfy loam cut from a pasture field (and put together in a heap for a couple of months to kill the grass) add a peck of old mortar or plaster rubble, a gallon of quicklime and a quarter of a gallon of bone-dust. Mix well together and add at least a couple of barrow-loads of the mixture to each tree, placing the new soil carefully round the roots as replanting takes place and pressing the soil firmly. The work should be carried out at once. Before the trees are replanted the roots must be overhauled, the strong ones cut back by one-third their length, and the growth spoken of as springing from the roots must be cut off as near to the roots as possible without injuring them, or it will grow again as bad as before. About the middle of April each tree, as far as its roots extend, should have a layer of rotten manure, 4 inches deep, laid over the surface of the soil as a mulch and allowed to remain on during the summer. This not only prevents moisture evaporating from the soil, but it also forms an excellent medium for the innumerable surface feeding roots which are formed during summer. Of course, plenty of water must be given in dry weather. We have never known this treatment to fail to bring back to health and fruitfulness Peach and Nectarine trees in an unsatisfactory condition. In dealing with old trees the treatment would be slightly different; but as we understand your trees were only planted last spring twelve months, it will be quite safe to replant them, and, if carefully done, no loss of crop next year should follow.

Varieties of Gooseberries and Currants (*A. L.*).—The following green and red Gooseberries are excellent for dessert: Green—Langley Gage, Rosebery, British Queen, Admiration, Ocean and Greengage. Red—Lord Derby, Dan's Mistake, Whinham's Industry, Bobby, Red Champagne and Warrington. Some of the best-flavoured Gooseberries are among the yellow and white varieties. We note a few of these: Yellow—Langley Beauty, Catherina, Gunner, High Sheriff, Keepsake and Marigold. White—Bright Venus, Cheshire Lass, Yellow Ball, Yellow Sulphur and Golden Gem. The three best Black Currants are Carter's Champion, very sweet; Boskoop Giant and Black Naples.

Pears, Figs and Plum gone wrong (*F. P. H.*).—Cracking in Pears may be due to more than one cause; but in the case before us we think there is no doubt that the injury has been caused by a fungus (Fusicladium dentriticum). This attacks the young twigs in spring and the flowers when open, preventing the fruit from setting properly, which is, in consequence, crippled and injured in growth and rendered useless by cracking, as in your case. The best way to prevent its attack in future is to burn all the leaves as they fall, also the prunings after the trees have been pruned, and then spray the trees copiously with Bordeaux mixture. This is one of the best fungicides we have, and may be obtained from any seed merchant. Spray the trees again before they start into growth in spring. Figs.—By some means the sample fruits sent have failed to form seeds; consequently, they have also failed to develop growth and ripen in the usual way. We have no particulars before us of the condition of your trees or of the treatment given them; therefore we can only surmise what the cause of the failure of the fruit has been. It may be brought about in various ways, but the chief cause of failure is to be found in the overcrowded condition of the trees by allowing too many branches and too much foliage to grow, often completely shutting out the fruit from sunshine and making the free circulation of warm air among the branches next to impossible, conditions imperative to the healthy growth of all fruit. If this is so, you should at once have all the weakest branches of this year's growth cut clean out at their base, as they are of no use for fruit-bearing, and only help to spoil the branches of stronger growth which, if better exposed, would produce good crops of healthy fruit the following year. Dryness of the roots is sometimes responsible for such a failure. Plum decayed.—The cause of the decay in this, we think, is due to a puncture of the skin of the fruit by some insect.

MISCELLANEOUS.

Peat-moss from the road (*Sigma*).—Whether this is harmful or not will depend upon the amount of soluble matter present. It would be best to allow it to remain until any soluble matter had been washed out by rain.

Leaves for inspection (*Mrs. E. L. E.*).—Some of the enclosed leaves show traces of having been, when quite young, attacked by the Begonia mite, and that was probably the commencement of the trouble. The plants are evidently kept close and warm, and this would cause the tissues of the leaves to be very soft, and any slight injury prove to be a source of decay. We have never met with plants grown under hardier conditions attacked in this way; but where the reverse is the case, the decay often gives trouble.

Lawn weeds (*Tennis*).—If the Daisy patches are numerous and large, the better way would be to dig them out in bulk, and either lay fresh turf at once or sow grass seeds. As you desire the lawn early, the former would be best, as it is now late for sowing grass seeds. You could sow again in March or April in showery weather if this sowing failed to give good results. The drawback to weed poison is that it does not affect seeds in the soil, otherwise for the green tuft one application should be sufficient. The cinders would be of no service, though you may give a top-dressing of loamy soil and light manure in November and break it down by sweeping and scattering. You might also, in the same month, give a top-dressing of basic slag at the rate of 4oz. to the square yard and bone-meal at the same rate. If the lawn by much use has become hard and impervious, prick it up with a fork, and afterwards give loamy soil and decayed manure, finely sifted, together with the bone-meal and basic slag, as a top-dressing to the whole. In spring apply nitrate of soda, finely ground, at the rate of 1oz. per square yard. This will assist a quick growth generally. For your clay soil the basic slag would be best in conjunction with loam and manure.

Creeper for house wall (*F. P. H.*).—We think that, in the circumstances, you had better confine yourself to plants that are not true creepers or climbers, as these terms are usually understood, but which are capable of covering much wall space in course of time and, while not subject to the breakages to which you refer, give a good account of themselves generally. The kinds of plants we have in mind would include Escallonia macrantha, Ceanothus dentatus, C. azureus grandiflorus, C. veitchianus, C. Gloire de Versailles and others. Of much value, too, would be the berry-bearing Cratægus Pyracantha and C. Lelandii. The majority of these, while possessing no suspicion of feelers or tendrils such as the Ivy or other true climbing plants, are suited for positions such as that indicated, because they press very closely to the wall and, being of a sturdy woody habit of growth, would not easily break. By first nailing them to the wall they would take care of themselves after a time and give little or no trouble. It should be stated clearly that those named are of slower growth than true climbers, but the attention they require is practically *nil*.

Rose diseased (*Robin*).—The Rose is attacked by the disease known as parasitic Rose canker, caused by a fungus. Cut out and burn all infested shoots and paint over the wounds with tar or creosote. Search should be made on young shoots for the beginning of the trouble.

French system of gardening in England and Scotland (*T. C. D.*).—There are many in England who have embarked on this old system of culture; but we have not heard of it being taken up seriously in Scotland. The climate would probably be against it in the latter country. Where the conditions are favourable, we see no reason why the system should not be as great a success in the South of England as it is in the neighbourhood of Paris. Everything depends on capable and intelligent management.

Potatoes diseased (*M. Field*).—The Potatoes are affected with one of the several kinds of scab, in this case due to the fungus Rhizoctonia, or copper web. The fungus is almost all gone now and is superficial. It must have attacked the plants early in their growth and was probably present in the soil, since it is known to grow on one or two plants likely to have been present in pasture land. It would be well not to grow Potatoes in the soil for a year or two. Cabbages and probably Beans, Peas and Turnips would not be likely to be affected.

Covering for staging (*Sunderland*).—We do not think that Cocoanut refuse would give satisfaction if used for the purpose named. Derbyshire spar, broken finely, is remarkably neat and clean, and is used in many gardens. We also like the appearance of fine gravel from about the size of a Pea to a Horse Bean. By employing sieves of different sizes this can be readily done. After being sifted, it is a good plan to wash the gravel before putting it on the stage. In order to wash it thoroughly a tub of water and a fine sieve are necessary. A shovelful of gravel should then be put in the sieve, which must be partially immersed in the water and given a twist round, when all impurities will be removed, pass through the sieve and fall to the bottom of the tub of water.

Begonia Gloire de Lorraine (*A. A. T.*).—If your plants of Begonia Gloire de Lorraine are in a genial temperature of 55° to 65°, they ought not yet to have finished flowering. An occasional stimulant should aid in the production of more flowers. When the plants have done blooming, say, about the end of January, they should be kept somewhat cooler and drier for about six weeks. Then, if cut down to within 6 inches or so of the pot and placed in a warmer structure, young shoots will be pushed out freely. When these are about 2 inches long, they make the best of cuttings. These should be dibbled singly into small pots of light sandy soil and placed in a close propagating case in the stove, where they will soon root. Directly this happens they must have more air allowed them, and then be grown on in an intermediate temperature.

Information about ladybirds (*A. H. King*).—It would be very interesting to obtain confirmation of your observations regarding the ladybirds. One would think they were in the position described for shelter or after small insects. The flies were undoubtedly feeding in a hole made by some bird or biting insect. The yellow cocoons are those of a small fly which lays its eggs in the body of the white butterfly caterpillar. The eggs hatch there and the larvæ feed in the caterpillar without killing it until the time comes for the latter to pupate. They then emerge, killing the caterpillar as they do so, turn into chrysalides inside the little cocoons, and hibernate in this condition, hatching out about the time the cabbage butterfly caterpillars appear in the early summer. They form the best natural check to the ravages of the cabbage white butterfly in this country.

Starting a Violet farm (*M. C.*).—The chief thing is a warm and sheltered position in which winter frosts are not felt. Good sandy loam is desirable, likewise a spot where Violets have not been long grown. Unless the small farm was situated in a favoured part, such, indeed, as may be found near Southampton, Bournemouth, or in the neighbourhood of the Bristol Channel, in some parts of South Wales or in Ireland, frames with lights would become a sort of necessity; indeed, frames would be most helpful in any case for giving assistance to early crops and thereby prolonging the season. "Sweet Violets and Pansies," by E. T. Cook (Newnes, Limited), might prove of service to you so far as the cultural side of the question is concerned. The price is 3s. 6d., or 3s. 10d. free by post, the latter for cloth covers. Notes on the cultivation of the Violet have frequently appeared in THE GARDEN.

Gardening education (*B. G.*).—May we, without seeming to be too bold, suggest that in seeking to educate yourself more fully in gardening, you also seek to greatly improve your handwriting; your spelling is correct, but writing indifferent. You may wish to go in for an examination. If that is so, it would help you if you joined a class conducted by a good practical gardener, who also understands something of horticultural science; but we realise that in your northern and somewhat remote position it may be difficult for you to become a member of any class. If you have to work up from books, read this paper carefully and study it each week; also devote yourself to mastering one branch of gardening first, such as vegetable culture dealing with the soil, deep working of it, manuring, cropping, best varieties to grow, general culture, and all similar information. A year will not be too much to devote to that. Then go on with fruit culture, under glass and outdoors; then flowers, trees and shrubs, lawns, and so on. All this means hard work and close study; but if you make good use of books and read them carefully, you will find all the time you are engaged in a garden that the theoretical knowledge gained from books will both help and interest you in your garden work greatly. But you must not begin with books that are expensive or too advanced. You will find much that is helpful in "Practical School Gardening," price 2s., obtainable from H. Frowde, University Press, Amen Corner, London, E.C.; also "Gardening Made Easy," price 1s. 6d., from the office of this paper. A good beginning for vegetables is "Vegetable Culture," price 1s., obtainable from Macmillan and Co., London. Any bookseller should get you these for the prices stated. A very useful book on fruit-growing is that entitled "Profitable Fruit-growing" (a gold medal essay), price, by post, 1s. 2½d., which may be had of the Publisher, 41, Wellington Street, Strand, London. A good book on soil is Mr. A. D. Hall's "The Soil," price 3s. 10d. by post, which may be had from the same place as the last-named book.

SOCIETIES.

EAST OF FIFE CHRYSANTHEMUM SOCIETY.

THE annual show of this society was opened in the Town Hall, Leven, on November 26, by Major Shepherd. There was a reduction in the number of entries, but the exhibits did not show any diminution in their quality, and were generally considered fully equal to those of former years. Specially fine were the blooms and the fruit. Among the leading winners with cut blooms were Mr. D. M. Pryde, jun., Buckhaven; Mr. J. Farmer, Methil; Mr. D. M'Donald, Linwood Hall; Mr. W. Young, Falkland Palace; and Mr. A. Robb, Dysart House. In pot plants, Mr. Pryde, Mr. P. Readdie and Mr. R. Ballantyne, Leven; Mr. D. M'Donald, Mr. Kinnear, and Mr. W. Short, Lahill, were prominent. Mr. A. Robb, Mr. J. Maule, Balcaskie; Mr. D. M'Donald, Mr. W. Short, Mr. Cummings and Mr. J. Paton led in fruits; and in the vegetables the chief winners were Mr. M. Campbell, Mr. Hampton, Mr. T. Deas and Mr. Kinnear. The cup for eighteen Chrysanthemum blooms offered by Mr. G. Donaldson was won, for the second time, by Mr. D. M. Pryde, jun.

DUNDEE CHRYSANTHEMUM SOCIETY.

THE annual show of the Dundee Chrysanthemum Society was opened in the Kinnaird Hall, Dundee, on November 26 and continued the following day. The show, which was opened by Colonel Douglas Dick of Pitkerro, was well attended at the opening ceremony, but the drawings for the first day were comparatively small. This was not due to any want of attraction in the show itself, as it was one of a high degree of excellence, many of the blooms being of exceptional quality, while the plants and vegetables well maintained the great reputation of the district as one in which horticulture is on a high standard.

In the class for the Corporation Challenge Vase, for twelve vases, Japanese, in twelve varieties, the competition brought out a good contest between such redoubtable growers as Mr. D. Nicoll, Rossie, and Mr. J. Beisant, Castle Huntly. The former won with a display of exceptional beauty, his Mme. Radaelli and J. H. Silsbury being very fine indeed. Mr. Beisant was second and Mr. J. Rae, Ethie Castle, Aberdeen, third. For eight vases Mr. Nicoll led again, Mr. A. Duncan, Carbet Castle, being second and Mr. Beisant third. For six vases Mr. W. Dickson, Adderley, led, and for four Mr. J. A. Sword was first. Mr. W. Dickson was first for four vases of incurved Japanese and also for two vases of six blooms. Mr. Duncan was first for the cup for three vases of Chrysanthemum blooms, distinct. Mr. J. Beats was first for three vases of singles, dress sprays and button-hole bouquets, and for a shower hand bouquet of Chrysanthemums, Mr. G. Scott leading for vase and also for basket of blooms arranged for effect. Mr. J. S. Summers led for Chrysanthemums, incurved, in vase for effect.

In the plant classes, Mr. G. Scott, Seathwood, was first for twelve plants of Chrysanthemums, Mr. J. Beats coming in second. Mr. Beats was first for six plants, and also for winter-flowering Begonias and Primula sinensis. Mr. Scott led for six pots of Chrysanthemums.

The classes for amateurs brought a good competition, and a creditable display was the result. For the Watson Challenge Cup, for four vases, Japanese, Mr. J. Denholm, Blackness Road, Dundee, led, Mr. J. Clark coming second. Mr. Denholm led also in the class for three vases of Japanese, and Mr. Clark won the silver medal for two vases in not less than three varieties. The gold medal for a vase of Chrysanthemum blooms, arranged for effect, went to Sergeant-Major Curtis, Lochee. Mr. Clark was also the leading amateur winner with plants.

The vegetable classes were for amateurs, and in that for a collection Mr. J. Hepburn, West Huntingtower, was first.

The nurserymen's exhibits were of good quality, although not very numerous; but space does not admit of details of these.

BANBURY AND DISTRICT GARDENERS' ASSOCIATION.

THIS association held its fourth fortnightly meeting on the 3rd inst. The Mayor presided. Mr. Chidlow, head-gardener to Mrs. Morrel, Headington Hill, Oxford, gave a very interesting paper on the culture of winter-flowering plants, at the conclusion of which a lengthy discussion took place, questions being answered in a very able manner by Mr. Chidlow. The meeting terminated with the usual votes of thanks to the lecturer and chairman.

ROYAL HORTICULTURAL SOCIETY.

AT the fortnightly meeting held at Vincent Square on the 7th inst. there was a moderately good display of flowers and vegetables considering the season, Carnations and winter-flowering Begonias being the principal flowers. The splendid exhibit of Brassicas staged by Messrs. Sutton and Sons, and referred to below, was of more than usual interest, and most welcome on account of its educational value.

ORCHID COMMITTEE.

Present: Mr. J. Gurney Fowler (chairman), Messrs. James O'Brien, Walter Cobb, H. Little, W. Boxall, R. Thwaites, F J. Hanbury, Stuart H. Low, J. Forster Acock, A. N. A. McBean, C. H. Curtis, J. Charlesworth, J. Cypher, Arthur Dye, W. H. Hatcher, H. G. Alexander, H. A. Tracey, H. Ballantine, Gurney Wilson, J. Wilson Potter, W. Bolton and de B. Crawshay.

Messrs. Charlesworth and Co., Hayward's Heath, put up a fine bank of splendidly flowered plants, these comprising many beautiful Calanthes, Lælio-Cattleyas, Cypripediums and a few Odontoglossums. Lælio-Cattleya Cappei, L.-C. Sunray, L.-C. Lydia, Cattleya Octave Doin, Calanthe Veitchii alba, C. William Murray, C. albo-aurea, a beautiful variety of Odontoglossum ardentissimum and a splendid form of O. crispum were a few among many that called for special mention. Silver Flora medal.

From H. S. Goodson, Esq., Fairlawn, Putney, S.W. (gardener, Mr. G. E. Day), came a splendid lot of well-grown Cypripediums, all being well flowered and in perfect health. Such as C. insigne Sanderæ, C. triumphans Jules Hye variety and several varieties of C. leeanum were particularly good. In addition, we noticed a fine plant of Odontoglossum harryo-crispum, the whole making a most interesting display. Silver Flora medal.

Messrs. Mansell and Hatcher, Limited, Rawdon, Yorkshire, put up a small group of the better-class Cypripediums, these being well grown and carrying particularly fine flowers. C. arthurianum pulchellum, C. gigas superbum, C. Memnon, C. triumphans Jules Hye variety, C. Niobe and C. La France were a few of more than ordinary merit. Silver Banksian medal.

Messrs. J. Cypher and Sons of Cheltenham also had a splendid little exhibit of Cypripediums, the flowers of which were particularly large and bright. C. insigne Ethel Cypher, C. i. King Edward VII., C. leeanum Cypher's variety, C. Miss Louise Fowler, C. Mme. Jules Hye and C. aureum virginalis were some that called for special mention. Silver Banksian medal.

Messrs. Sander and Sons, St. Albans, exhibited a delightful group of mixed plants of high quality, among which we noticed excellent examples of Lælio-Cattleya Decia, Cypripedium insigne Eclipse, C. cloisonianum, C. Empress Alexandra, C. Euryades albanense, Eria barbata and Odontoglossum amabile, the whole being in the best possible condition. Silver Flora medal.

Mr. E. V. Low, Hayward's Heath, exhibited a small group of excellent plants, composed chiefly of splendidly grown Cypripediums, these being very free-flowered. C. Ville de Paris, C. Mme. Jules Hye, C. Olivia, C. charlesianum, C. Thalia giganteum and C. Tityus were of more than usual merit.

FRUIT AND VEGETABLE COMMITTEE.

Present: Mr. W. Poupart (chairman), Messrs. W. Bates, A. Dean, H. Parr, J. Vert, H. Markham, A. R. Allan, G. Hobday, J. Davis, P. W. Tuckett, J. Jaques, G. Reynolds, Charles Foster, G. Wythes, Owen Thomas and Edwin Beckett.

Messrs. Sutton and Sons, Reading, staged a wonderful collection of members of the Cabbage family, this occupying nearly the whole length of the hall and comprising no less than fifty distinct forms of Brassica, twenty-five of these being varieties of Kale. In the centre of the exhibit some plants of the wild Cabbage, from which all our garden greens have been derived, were shown, thus rendering the exhibit one of educational value as well as being exceedingly interesting. The value of the Kales for winter use is now being more fully recognised; hence Messrs. Sutton were quite right in making a feature of these, the many distinct forms being unknown to many. Sutton's Autumn Protecting Broccoli was shown in splendid condition, these being cut from the open field after the severe weather which has been experienced. Savoys, Brussels Sprouts and Cabbages of various sorts were also in splendid form. A hearting form of the Portugal Cabbage (Couve Tronchuda), a Brussels Sprout stem with a Savoy head and buttons, and a similar stem with a Cabbage head, were three interesting novelties in this unique group. Silver-gilt Knightian medal.

The Hon. Vicary Gibbs, Aldenham House, Elstree (gardener, Mr. E. Beckett), staged a very attractive group of Kales, these being arranged in large pyramids of various colours. The freshness and general excellence of these were freely commented upon, and Mr. Beckett deserves every praise for staging such a splendid lot. Silver Knightian medal.

Messrs. B. Shearn and Co., Tottenham Court Road and Store Street, London, staged a very fine collection of Nuts, these including many not often seen offered for sale. Cashew kernels, Pine kernels, Butter Nuts, Lychees, Walnut kernels, Peccan Nuts, Brazil Nuts in pods, Jordan Almonds, Pistachio Nuts and Cocoanuts in pods, and Dates stoned and stuffed with Nuts were a few of the more unusual features of this interesting group. Silver Knightian medal.

In the competitive classes for vegetables competition generally was not very keen. For two red varieties of Celery, the Hon. Vicary Gibbs, Aldenham House, Elstree (gardener, Mr. E Beckett), was the only exhibitor, staging excellent examples of Sutton's Superb Pink and Standard Bearer, for which he secured first prize. The same exhibitor was first for two white varieties, these being Sutton's Solid White and Giant White.

For three dishes of Beet, distinct, there were two entries, the Hon. Vicary Gibbs being first with splendid examples of Cheltenham Green Top, Sutton's Black and Delicacy. Countess Cowper, Panshanger, Hertford (gardener, Mr. R. Staward), was a good second, the varieties shown here being Sutton's Crimson, Blood Red and Satisfaction. For three dishes of Carrots, distinct, the Hon. Vicary Gibbs was the only exhibitor and secured first prize with beautiful specimens.

For two varieties of Brussels Sprouts, three stems of each, there were three entries, first prize going to E. J. Preston, Esq., Kelsey Park, Beckenham, Kent (gardener, Mr. M. Webster), for splendid specimens of Dwarf Green and Perfection; the Hon. Vicary Gibbs was a good second. For two dishes of Brussels Sprouts, distinct, picked, there were two entries, the Hon. Vicary Gibbs being placed first and E. J. Preston, Esq., second.

For two varieties of Endive, three plants of each, the Hon. Vicary Gibbs was the only exhibitor, winning first prize with Sutton's Improved Round-leaved Batavian and Exquisite Curled. The same exhibitor was first for three varieties of Savoys, two of each, second honours falling to Countess Cowper (gardener, Mr. R. Staward), both exhibitors showing excellent produce.

FLORAL COMMITTEE.

Present: Mr. H. B. May (chairman), Messrs. R. C. Notcutt, W. J. Bean, G. Reuthe, J. Douglas, J. T. Bennett-Poë, A. Kingsmill, James Hudson, William Howe, J. Jennings, Charles E. Shea, W. Bain, H. J. Jones, Charles Dixon, Charles E. Pearson, E T. Cook, W. P. Thomson, E. H Jenkins, G. Paul, R. Hooper Pearson, W. Cuthbertson and the Hon. J. R. C. Boscawen.

Messrs. James Veitch and Sons, Limited, Chelsea, again brought a rich and varied display of the winter-flowering Begonias to demonstrate the profuse flowering and beauty of these plants, some of which have now been in flower for at least three months. This long-continued flowering is, indeed, apart from the floral display these plants create, one of the chief attributes of the group, whose value at this season of the year it is not possible to over-estimate. We noticed nothing new among the varieties shown, but may mention such as Winter Cheer, Julius (semi-double and of Oleander pink shade), Mrs. Heal (carmine), Ensign (semi-double, rose, a valuable and showy variety), Mrs. Bedford (pink-flowered, of the Lorraine type, a lovely plant for freedom of flowering and good colour), and Elatior (rose scarlet) as among the best of those displayed on the present occasion. A few single and double flowered Chrysanthemums were also shown by Messrs. Veitch, these including Golden Age, Moneymaker (white) and Mrs. W. Buckingham (single, pink), the last-named a very pleasing and well-formed flower. Plants of the ever-welcome and fragrant-flowered Luculia gratissima were also displayed, which is among the most valuable of winter-flowering plants. Silver-gilt Banksian medal.

The Misses Hopkins, Shepperton-on-Thames, brought a pretty display of hardy plants, which included Polyanthus, single and double Primroses, a pan of Iris Histrio, and a nice variety of Saxifrages of several sections.

Mr. F. W. E. Williams, Bromyard, brought several vases of single-flowered Chrysanthemums, some of which were showy and good. The varieties, however, were unnam l, and we are precluded from a detailed reference in consequence.

Mr. W. H. Page, Hampton, had a very handsome exhibit arranged at the western end of the hall, which comprised Lilies and Carnations. The former were of the red and white flowered forms of L. speciosum and L. longiflorum, and were arranged in imposing masses in Bamboo vases and stands. Delightfully fresh-looking and in the highest excellence, these things naturally attracted a good deal of attention. The Carnations, too, were in every way admirable, and included May Day, Winsor, Beacon, White Perfection, Enchantress, Mrs. T. W. Lawson, Governor Roosevelt and others. These were all arranged in handsome vases and made a fine display. Silver-gilt Banksian medal.

Messrs. J. Peed and Sons, West Norwood, S.E., brought a large variety of succulent and alpine plants, the latter mostly arranged in pans. Berried shrubs in variety were also freely displayed.

Messrs. H. Cannell and Sons, Swanley, brought a really sumptuous display of the Zonal Pelargonium, arranging them in handsome bunches and in many diverse shades of colour, Barbara Hope, salmon; New York, scarlet, white eye; Jupiter, scarlet; Paris, pink and white; Clevedon, scarlet; Vesta, light scarlet; Berlin, crimson scarlet; and Campania, salmon, being among the best. Messrs. Cannell also had in variety single-flowered Chrysanthemums, of which Cannell's White, Cannell's Crimson and Mrs. Charles Willis, carmine, were the best. Silver Banksian medal.

Messrs. Stuart Low and Co., Enfield, brought a very large display of Carnations, arranging the flowers in an artistic manner in the centre of the hall. The varieties were very numerous, and apart from the leading kinds of commerce, the firm brought quite a large number of seedlings. Messrs. Low also exhibited finely grown Poinsettias, Cyclamen and other plants. Silver Banksian medal.

Mr. L. R. Russell, Richmond, had an admirable group of evergreen and variegated plants, Ivies and Aucubas constituting important features. Of the former there were many admirably grown examples of Hedera dentata variegata, without doubt the finest of all the silver forms. Apart from its good and pronounced colour, its vigour and free growth and brightening effect at this season of the year render it a most valuable addition to its class.

Mr. Frank Brazier, Caterham, had a capital group of single and double flowered Chrysanthemums, in which was included a large number of exhibition blooms.

Mr. H. J. Jones, Lewisham, had a vase of splendid blooms of the single Chrysanthemum Kathleen May, a brilliant velvety crimson with clear golden centre; a lovely thing for any purpose. (*See* "New Plants.")

The Rev. H. Buckstone, Etwall, Derby, received a silver Flora medal for a superbly grown lot of red and white Cyclamen, the plants for so early a date being splendidly in flower. Mr. Buckstone has upon more than one former occasion displayed his skill in this direction, but we think the above group surpasses all his previous efforts. Silver Flora medal.

Some very fine examples of the Persian Cyclamen came from Mr. W. Astor, Taplow, near Maidenhead, the plants being well grown and flowered. Silver Banksian medal.

Mr. H. Burnett, Guernsey, brought many fine vases of Carnations, staging them with his usual good taste and judgment. Silver-gilt Banksian medal.

Mr. E. H. Brown, Roehampton, received a silver Flora medal for a capital table of Begonia Gloire de Lorraine, the plants being mostly of specimen size and interspersed with Palms and other useful things.

Messrs. W. Wells and Co., Limited, Merstham, filled a table with Chrysanthemums in variety, single, decorative and exhibition sorts being well displayed. A few prominent sorts seen to be in excellent condition were H. F. Felton, rich golden yellow; Souvenir de Scalardis, yellow; Hetty Wells, bronze; Miss Muriel Smith, salmon and terra-cotta; Mrs. W. Buckingham, pink, single; and Captain Julyam, pleasing soft yellow.

Messrs. W. Cutbush and Sons, Highgate, N., brought a really superb lot of Carnations, arranging the flowers with skill and taste near the entrance. Some of the more noticeable sorts were Rose Doré, May Day, pink; Countess of Onslow, new, heliotrope shade; Rosine, Marmion, and the new royal purple variety named Lady Norah Brassey. Messrs. Cutbush were also responsible for a very fine group of berried and other shrubs, which included scarlet and yellow berried Hollies, the Sea Buckthorn (Hippophaë rhamnoides) and others. Silver Flora medal.

PERPETUAL FLOWERING CARNATION SOCIETY'S EXHIBITION.

THE seventh exhibition arranged by the above society was held in the Horticultural Hall, Vincent Square, Westminster, on the 8th inst., and proved a great advance in many respects on those held previously. We were pleased to note that the amateurs' classes were better contested, but there is still room for improvement in this direction. The quality of the flowers, taken as a whole, was very good and the arrangements excellent.

For the best group of cut Carnations, not fewer than twelve varieties, arranged on a table of stated size, there were two entries, first prize being won by Mr. C. F. Waters, Balcombe, Sussex, with a very beautiful lot of blooms, which were well arranged. Afterglow, Aurora, Mikado and Victory were four conspicuous sorts. Mr. S. Mortimer, Rowledge, Farnham, Surrey, was a good second, his blooms also being well arranged and of excellent colour, Nelson Fisher, Beacon and Britannia being particularly noticeable in this respect.

For the best three vases of 12 blooms each of American novelties distributed since January 1, 1907, there were only two entries, first prize being won by Messrs. Bell and Sheldon, Guernsey, with good examples of Winona, Pink Delight and May Day.

Colour Classes for Twenty-five Blooms.—For any white variety there were five entries, Mr. W. H. Lancashire, Guernsey, being first with a beautiful vase of White Perfection, the flowers being very large and pure. Mr. D. M. Collins, Swanley, Kent, was a close second with grand flowers of the same variety, Messrs. Bell and Sheldon being third, also with White Perfection.

For a vase of any blush or light pink variety, Messrs. Bell and Sheldon were first out of four competitors with a splendid vase of Winsor, Mr. W. H. Lancashire being second with Enchantress, and Mr. D. M. Collins third with the same variety.

A splendid vase of Rose Doré won first prize in the class for a vase of a rose or salmon variety, this being staged by Mr. W. H. Lancashire, the colour being a dull scarlet rose. Mr. A. F. Dutton, Iver Nurseries, Bucks, was second with a good vase of the new May Day, and Messrs. Bell and Sheldon were third with Mrs. H. Burnett.

For a vase of deep pink or cerise, Messrs. Bell and Sheldon were first with Afterglow, Mr. W. H. Lancashire being second with Mrs. T. W. Lawson, and Mr. C. Engelmann, Saffron Walden, third with Afterglow.

Five vases were staged in the crimson class, a splendid lot of President winning first honours for Mr. W. H. Lancashire. Mr. C. Engelmann was a good second with his new Carola, and Union Jack won third prize for Mr. A. Smith, Enfield Highway.

There were four entries in the scarlet class, Messrs. Bell and Sheldon being first with a magnificent vase of Britannia, which also won the society's silver-gilt medal offered for the best vase of Carnations shown in Classes 3 to 10 inclusive. Mr. W. Lancashire was second with Robert Craig, and Mr. C. Engelmann third with Britannia.

For a vase of any other colour or fancy, only two exhibits were staged, Mr. W. H. Lancashire being first with a seedling named Emperor, this being white, striped crimson. Mr. C. Engelmann was second with Vinca, a magenta flower of large size. For twenty-five blooms of any variety not yet in commerce, Mr. C. Engelmann was first with an unnamed large crimson scarlet, Mr. A. Smith, Enfield Highway, being second with a salmon pink variety named Empire Day, third prize going to Mr. J. Green, March, for a white variety.

Messrs. Felton and Sons' first prize for a vase of thirty-six blooms, to be arranged for decorative effect, was won by Messrs. Bell and Sheldon with Britannia arranged with

Asparagus plumosus nanus. Mr. H. J. Dudney, Erith, Kent, was second with white and cerise Carnations arranged with Asparagus, and Mr. W. H. Lancashire was third with Enchantress.

Only two baskets were entered in Class 13, the first-prize one being shown by Mrs. Alex. Robinson, Park Hill, Carshalton, this being composed of Carnation Mrs. H. Burnett, Asparagus and golden-leaved Privet. The second prize was won by Mr. H. J. Dudney, Erith, this basket containing mixed Carnations.

For a bouquet Messrs. Bell and Sheldon were first, Mr. H. J. Dudney second, and Mr. J. Green third.

For three ladies' sprays of Carnations, Sir Randolf Baker, Bart., Ranston, Blandford (gardener, Mr. A. E. Usher), was a good first with beautiful designs, Messrs. R. F. Felton and Sons, Hanover Square, being a good second, and C. F. Raphael, Esq., Shenley (gardener, Mr. A. Grubb), third.

For six gentlemen's button-holes of Carnations, the first prize was won by C. F. Raphael, Esq., second honours falling to Sir Randolf Baker, Bart., and third to Mr. H. J. Dudney.

For a dinner-table decoration of Carnations, Messrs. R. F. Felton and Sons, Hanover Square, were first with a very beautiful design of crimson and pink Carnations, Asparagus and Smilax forming the greenery, but this was afterwards disqualified as not being according to schedule, the first prize, therefore, going to Mrs. Alex. Robinson for a beautifully arranged design of pink varieties. Sir Randolf Baker, Bart., was second, and Mrs. F. Robinson, Dunstable, third.

OPEN TO GENTLEMEN'S GARDENERS AND AMATEURS ONLY.

For a group of Perpetual-flowering Carnation plants, to be arranged on the floor in a given space, there were two entries, Lord Howard de Walden's silver-gilt challenge vase being won by C. F. Raphael, Esq., Shenley (gardener, Mr. A. Grubb), the plants shown here being very good indeed. Lord Burnham, Beaconsfield (gardener, Mr. G. Johnson), was the other exhibitor, and was awarded second prize.

For the best collection of cut Carnations, to be arranged on a table of stated size, there were three entries, the gold medal and first prize being won in splendid style by Sir Randolf Baker, Bart. A Smilax and Carnation clad arch surmounted this exhibit, and all the flowers shown were very good indeed. The silver-gilt medal and second prize went to Sir Daniel F. Gooch, Bart., Hylands, Chelmsford (gardener, Mr. P. Wilkinson), and the silver medal and third prize were won by F. May, Esq., Radlett, Herts.

For six Carnation plants in bloom there were three entries, first prize being won by Sir Randolf Baker, Bart., second by Lord Howard de Walden (gardener, Mr. J. Vert), and third by C. F. Raphael, Esq.

For three plants in bloom there were four entries, Sir Randolf Baker, Bart., again being first, the same exhibitor also being first for three plants in Class 21.

The challenge cup offered by Messrs. Stuart Low and Co., for a vase of six blooms of any of a given list of varieties, was also won by Sir Randolf Baker, Bart., second prize being secured by C. F. Raphael, Esq., who was also first in a similar class, in which the prize was offered by Mr. H. Burnett.

The two prizes presented by THE GARDEN, and offered for a vase of one or more varieties of Carnations, to be shown with Carnation foliage, only those who have never won either a first or second prize at the society's shows being eligible to compete, were won respectively by F. Ricardo, Esq., The Friary Gardens, Old Windsor (gardener, Mr. G. West), and Stewart Robinson, Esq., The Ovals, Kington, Herefordshire, the former staging a splendid vase of Britannia and the latter a vase of mixed varieties.

In the colour classes for six blooms competition was good, the first-prize winner in each instance being Sir Randolf Baker, Bart., who showed the following varieties: White, White Perfection (this vase also winning the special prize offered for the best exhibit in Classes 25 to 31 inclusive); blush or light pink, Enchantress; rose or salmon, Rose Doré; deep pink or cerise, Mrs. T. W. Lawson; crimson, The President; scarlet, Britannia; and any other colour, Imperial.

NEW VARIETY.

Mary Vilven.—A large, full flower of bright carmine-rose colour, the petals being even and calyx good. The stems are long and stout, and the flower should prove a very useful addition, although it is not fragrant. Shown by Messrs. Blackmore and Langdon, Bath. This wa the only variety that received an award of merit.

MISCELLANEOUS GROUPS.

Messrs. Stuart Low and Co., Bush Hill Park, Enfield, were maintaining their high reputation with a wonderful circular group of cut flowers arranged with suitable foliage in the centre of the hall, a series of pillars and arches surmounting the whole adding much to the beauty of this group. In addition, the flowers used were of splendid quality, and embraced all the best standard and new varieties and also a large number of promising seedlings. Messrs. Low were also showing their new wire supports on plants and also samples of manure. Silver medal.

Mr C. Engelmann, Saffron Walden, put up a lovely table length of bright cut flowers tastefully arranged with foliage, the large number of new seedlings of more than usual merit that were included creating a good deal of interest. The new dark crimson variety, Carola, occupied a prominent position in the centre and was much admired. Gold medal.

Mr. W. H. Page, Hampton, put up a fine group of Carnations and Lilies, these being arranged in the form of a steep bank and comprising all the leading sorts. Silver-gilt medal.

A small group of excellent cut flowers came from Mr. J. Green, March, these being arranged in vases in tiers, the whole being fresh and good. Silver medal.

Mr. H. Burnett, Guernsey, put up a beautiful lot of fresh flowers, these being arranged with Asparagus and Smilax trails, and embraced some fine new seedlings in addition to high-class examples of the leading standard sorts. Silver-gilt medal.

Messrs. Young and Co. of Cheltenham had a small group of well-grown flowers and also a few plants in 2½-inch pots, the whole being in excellent condition. Silver medal.

Messrs. William Cutbush and Son, Highgate, had a large and well-arranged group of cut flowers and flowering plants, these including all the best varieties and being shown in well-nigh perfect condition. Silver medal.

Public park for Bangor, County Down, Ireland.—The Corporation having offered a premium for the best design for laying out their park, a large number of designs were submitted, and that of Messrs. J. Cheal and Sons of Crawley and London was awarded the first premium.

Peter Barr Memorial.—In accordance with a generally expressed wish, the Royal Horticultural Society's Narcissus and Tulip Committee held a special meeting at the hall on Tuesday, December 7th, to consider the question of raising some memorial to perpetuate the memory of the late Mr. Peter Barr. It was decided (1) to institute a medal to be called the Peter Barr Medal, to be given annually and in some way to be connected with the Daffodil; and (2) to use the balance of the subscriptions to provide for the maintenance of a child in connexion with the Gardeners' Orphan Fund, as this was an institution in which he had taken a life-long interest. The members of the Floral and Narcissus Committees were nominated to act as a general committee, and a small sub-committee consisting of five members from each body were elected to carry out the above resolutions. The following is a list of their names: Floral—Messrs. Marshall, Bennett-Poë, Cuthbertson, Hooper Pearson and C. E. Shea; Narcissus—Messrs. H. B. May, Curtis, Poupart, W. T. Ware and the Rev. J. Jacob.

Perpetual Flowering Carnation Society.—The annual meeting of the above society was held at the Hotel Windsor on Tuesday evening, December 7, Mr. J. S. Brunton in the chair. It is pleasant to be able to record that the treasurer, Mr. Laurence J. Cook, presented a balance-sheet which showed a surplus of some £28 after the expenses of the year had been met, and that the annual report, which was unanimously adopted, contained several very satisfactory features. Perhaps the two most important were (1) the increase in membership of sixty-four in the past year, which was only ten months long, owing to the change in the date of the ending and the beginning of the society's year; and (2) the issuing of a Carnation Year Book, which is to contain articles of historical and practical interest on points in connexion with the introduction and culture of the flower. It was decided to hold the next show in the Royal Horticultural Society's hall on May 19, in conjunction, if possible, with that of the National Tulip Society. The usual officers were elected and the list of vice-presidents considerably strengthened. A special vote of thanks was given to Mr. Hayward Mathias for the vast amount of work he had done since the inception of the society, and the treasurer was empowered to receive small subscriptions from members in order to present him with some tangible token of their appreciation.

Scottish Horticultural Association.—The monthly meeting of this association was held in the hall at 5, St. Andrew Square, Edinburgh, on the evening of December 7. There was a large attendance, the chair being occupied by Mr. James Whytock, Dalkeith Palace Gardens, president of the association. After the formal business had been transacted, a highly interesting debate was engaged in. The subject was, "Is Frost Beneficial to the Soil?" and it was opened by Mr. George P. Berry of the Edinburgh and East of Scotland College of Agriculture, who championed the affirmative. Mr. Berry performed his duty in an admirable manner, pointing out the value of frost as a disintegrator, as a ventilator, and as an agent for the destruction of bacteria, insects and fungoid growths. In the first he showed that but for the disintegrating influences of frost, fertile soil would not have been formed in many parts of the country. Its influences caused the detrition of rock, which constituted a great constituent of fertile soil in many parts. The value of frost as a means of aërating the soil was also advanced, and a good point was made in the discussion by the argument that frost was highly beneficial in ridding the soil of diseases and pests. Mr. David Storrie was the leading speaker on the other side, and discussed the question from another aspect. He contended that water and air were more beneficial in the processes of disintegration and ventilation than frost, and that fungi and bacteria were not killed by the frost, but only made inactive, ready to begin again when the arresting influences ceased. Other good points were made, and the whole debate was a highly instructive one.

"Country Life" for December 18 contains, among other articles: An illustrated account of Moyles Court, Hampshire; "Tale of Country Life: The Mountains and Miss Curtice," by John Barnett; "A Personal Reminiscence of Richard Jefferies," by Jos. Hall; "The Southwold Horses" (illustrated); "Insect-Catching Plants" (illustrated); "Scottish River Pearls"; "An Old Home of the Carews" (illustrated); "Wild Country Life"; "In the Garden" (illustrated).

TRADE NOTES.

GOOD SPRAYING MACHINES.

THE "Four Oaks" undentable syringes are justly noted for their easy working and effective qualities; and the "Four Oaks" spraying machines are of the same high quality. As many of our readers are aware, spraying for the destruction of many pests is now in full swing, and no up-to-date fruit farm or garden can afford to be without spraying apparatus of some kind. Anyone intending to purchase syringes or machines cannot do better than write to the "Four Oaks" Syringe and Spraying Machine Company, Sutton Coldfield, Birmingham, for their free illustrated price-lists.

UNWIN'S SWEET PEAS.

MR W. J. UNWIN, the well-known Sweet Pea expert of Histon, Cambs, sends us his Sweet Pea catalogue for 1910, which we have looked through with interest. As usual, Mr. Unwin has some splendid novelties to offer, as well as the cream of the older varieties. These are arranged in sections according to colour, a system which should prove of great assistance to those not quite familiar with all the varieties mentioned. We had the pleasure of inspecting Mr Unwin's Sweet Peas in July last, and can with every confidence recommend them to our readers. Mr. Unwin will send a free copy of his catalogue to anyone who cares to write for it.

"THE FACTORY IN A GARDEN."

THIS is the title of an exceedingly interesting and well illustrated booklet which we have received from Messrs. Cadbury Brothers, Bournville, Worcester. As most of our readers are aware, Messrs. Cadbury's garden town at Bournville is one of the most beautiful in the country, and chocolate and cocoa manufactured there are certainly produced under ideal conditions. Full particulars of the gardens and works are given in the booklet referred to, and we presume Messrs. Cadbury will send a copy free to any of our readers who care to apply for it.

PUBLICATIONS RECEIVED.

The Christmas Number of the *Sunday Strand* contains many delightful articles thoroughly appropriate to the season. It is a real Christmas Number, and brings home the reality of this festival of peace and goodwill. Published by Messrs. George Newnes, Limited, Southampton Street, Strand, W.C.

The *Grand Magazine* Christmas Number.—An entertaining number, full of interesting and appropriate stories. Although there are no illustrations, the *Grand Magazine* is always one of the most welcome of the monthly periodicals. George Newnes, Limited, Southampton Street, Strand; price 4½d. net.

"Bulletin No. 10 of the Department of Intelligence for Australia."

"Monthly Gleanings in a Scottish Garden," by Lucy H. Soutar; price 6s. net. Mr. T. Fisher Unwin, 1, Adelphi Terrace, London, W.C.

*** *The Yearly Subscription to* THE GARDEN *is: Inland, 6s. 6d.; Foreign, 8s. 9d.*

THE GARDEN.

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EDITORIAL NOTICES.

Every department of horticulture is represented in The Garden, *and the Editor invites readers to send in questions relating to matters upon which they wish advice from competent authorities. With that object he wishes to make the "Answers to Correspondents" column a conspicuous feature, and, when queries are printed, he hopes readers will kindly give enquirers the benefit of their assistance. All communications must be written clearly on one side only of the paper, and addressed to the* Editor *of* The Garden, *accompanied by name and address of the sender.*

The Editor welcomes photographs, articles, and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in The Garden *will alone be recognised as acceptance.*

Offices: 20, Tavistock Street, Covent Garden, W.C.

A COLD FRAME AND ITS USES.

GARDENERS take the cold frame so much as a matter of course that it is only when one is asked to what uses it can be put that its great value is fully realised. Without it the greenhouse, flower garden or kitchen garden cannot be utilised to the best advantage or to the fullest extent. Taking gardening as a whole or any branch of it, the cold frame is certain to be a necessity.

The size of the common garden frame varies considerably. The standard size of a light is 4 feet wide by 6 feet long, and a frame may be a one, two or three light one. The depth at the back varies from 9 inches to 2 feet, according to the work they are to do. These are the most generally used, being easily moved about as required. The large span-roofed frames opening from either side are practically miniature greenhouses, and are of special value for plants that require a lot of head room.

General Management.—Frames and lights should be well cleaned with hot soapy water in spring and autumn, and the outside glass as often as necessary. They should be kept well painted and drip-proof, as a light that drips loses half its value. Sifted ashes a few inches deep and made firm provide the best bottom to stand pot plants on, as they keep out worms and help to maintain the atmosphere moist. If a frame is stood on soft soil, a brick or something solid should be placed under each corner to keep it level and prevent warping, as if this is allowed to happen, it is certain sooner or later to cause drip. Crops that come to maturity in a cold frame will require a good depth of soil; but for striking cuttings or pricking out seedlings where pots or boxes are not used, ram the ash bottom hard, put 3 inches of the required soil on this to put the plants or cuttings into, and when planting-out time comes they can be lifted with a nice ball of soil and will suffer scarcely any check.

Ventilating and Watering.—A block of wood about 1½ inches thick, with three notches cut in it much like steps up a staircase, is very useful for ventilating with, and as this can be done from the top, bottom or either side of the light, cold, cutting winds should never be allowed to blow straight in. In spring, when growing early crops, every advantage should be taken of sun-heat. The frame should have a little ventilation before it gets very hot, and this should be increased later if needed. The plants may be syringed and shut up before the sun gets off the frame, and be covered in good time to keep in as much heat as possible during the night. Clean rain-water is the best, both for watering and syringing, and it should be used lukewarm. Hardening off should be done gradually. In autumn air should be given on every possible occasion to get plants as hardy as possible for the winter. All decaying leaves should be kept picked off the plants and the soil in which they are growing lightly stirred occasionally to keep it sweet, especially during the winter. Watering should always be done with care in winter; give too little rather than too much. A plant dry at the roots will live through a frost that would kill it if it were wet.

Protecting in Cold Weather.—Mats are generally used for this, but many other things will do, such as old carpet, sacking, blinds, waterproof sheeting, and even strawy litter where the untidiness it causes is not objected to. Whatever is used, dry material will keep out much more frost than wet; so if the outer covering is waterproof so much the better. Coverings should always be put on early in the day during frosty weather. It is a great mistake to let the glass get frosted over before doing so. In very severe weather the covering may stay on day and night, protecting the sides and ends with ashes or strawy litter or dry earth. If plants get frozen, keep the covering on the frame till they are thoroughly thawed and shade from sun for a few days.

The Frame in Spring.—The most important use of a cold frame in spring is for raising early supplies of vegetables and annual flowering plants. The vegetables would include Potatoes, Peas, Carrots, Spinach, Lettuce, Turnips, Radish and dwarf French Beans to come to maturity where sown. The best place for these is in a sunny position on well-worked ground in the kitchen garden, and the frames can often be lifted off them and used for other purposes before the crops have reached maturity. Onions, Celery, Brussels Sprouts, Leeks, Cauliflowers and Cabbage can be grown for early crops, to be planted out when the weather is suitable. Runner Beans planted in shallow boxes about May Day will be ready to plant out early in June when danger from frost is over. They transplant well and amply repay the little extra trouble. Practically all the hardy and half-hardy annuals can be raised in a cold frame, such as Asters, Antirrhinums, Marigolds, Stocks, Verbenas, Scabious, Phlox Drummondii, Petunias and many others doing well. I have always found it best to sow the seeds in pots, pans or shallow boxes about the first week in March, and to prick out into boxes or into soil in the frames as soon as the little plants are large enough to handle. Every reader of The Garden has read how to start Sweet Peas in a frame. Chrysanthemums for pot work that have been rooted in the greenhouse after they have been potted off and established need to be put into a cold frame to keep them sturdy and to harden them ready for standing outside. Dahlia tubers should be put in a cold frame about the end of April and have a little soil shaken over them. The lights can be taken off on warm days to keep the young growths sturdy. They must be protected if there is any danger of frost. All the different plants grown in the greenhouse during winter and spring for summer bedding need to be gradually hardened in cold frames. Some of them, such as Lobelia, Pyrethrum and Cineraria maritima, are never more satisfactory than when pricked out in a frame in April to make sturdy growth before planting outside. Polyanthuses and alpine Auriculas should be sown

thinly in pans of sandy loam in March, and planted out in good soil in a half-shady border when large enough to handle.

The Frame in Summer.—In late spring Cucumbers and Melons may be planted. A good Melon for this purpose is Carter's Hardy Frame Melon. It is of good size and flavour, and will thrive without bottom-heat. Cucumbers require a richer soil than Melons, and also shading during bright sunshine. The seeds of both should be sown in 3-inch pots, and the seedlings planted out when large enough. The soil should be put into the frames long enough to get well warmed before the plants are set out in it. Tomatoes can be grown well in a cold frame. Put a board across the frame 1 foot from the bottom, fill in with good loamy soil to the depth of 6 inches, plant four plants to a light at equal distances apart, and train on strings stretched 6 inches under the glass. Keep the side growths picked out, water and ventilate carefully, especially at first. Feed with manure-water after the first bunch of fruit has begun to swell. A cold frame with a good ash bottom is the most suitable place for the culture during the summer and autumn months of many of our winter and spring flowering greenhouse plants. Cyclamen, Cinerarias, Calceolarias (herbaceous) and Primulas all need the protection of a frame to keep off heavy rains and to be shaded from bright sun. The three last-named can be sown in the frames in pans of sandy soil and potted on as required. The middle of June is a good time for sowing herbaceous Calceolarias, May for Cinerarias and April for Primulas. Take the lights off on calm, dewy nights in summer and early autumn, as after hot, drying days this is very invigorating to the plants.

Winter-flowering Carnations need the protection of a cold frame when first brought out of the greenhouse and during heavy rains, and at other times the lights can be taken off and the plants exposed to the full sun and air with the pots plunged to the rims in sifted ashes. One of the best ways of propagating these plants is in a cold frame in August in pots of sandy soil. At the same time many other cuttings that require to be kept close can be rooted with them, such as Heliotrope, Iresine, Marguerites for early spring blooming in the greenhouse, Coleus for stock, and Hydrangea Hortensis to flower the following spring, one bloom on a plant. Roses will root well at the same time, using half-ripened shoots and putting them into sandy soil, four in a 5-inch pot or a few inches apart in deep boxes. Winter and spring flowering Stocks should be sown about August 1, and grown as sturdily as possible till taken into the greenhouse or planted outside in spring. I always sow Schizanthus (large-flowered hybrids) at the same time and keep them in the frame till room can be found in the greenhouse. They will stand several degrees of frost if kept dry at the root. Hollyhocks, Coreopsis grandiflora, Marguerite Carnations, Pansies, Gaillardias, Antirrhinums and Pentstemons sown the end of July or early in August and wintered in a cold frame are far superior to those sown in heat in spring. Those who have not grown Antirrhinums in this way, thus getting sturdy little plants with from six to eight shoots on ready to plant out in April, do not know what this flower is capable of. Freesias potted in sandy soil the first week in August may be kept in a cold frame till November; if then brought into a temperature of 45° to 50° they will flower by Christmas. Lachenalias require the same treatment, but flower about February. Roman Hyacinths potted in August and at fortnightly intervals can be flowered in a cold frame from November till spring.

The Frame in Autumn.—Cuttings of Calceolarias, Pentstemons and Violas should be put in sandy soil and kept close till rooted. Carnation layers may be potted up. Lobelia cardinalis and any other plants that are not perfectly hardy must be got in before severe frost comes, as plants that have been frozen winter badly, there always being a tendency to damp off. After the outdoor Chrysanthemums have finished blooming, a few plants of each variety should be lifted and placed in a frame for stock. If these are nicely covered with some sandy soil, the young shoots which grow in spring can generally be pulled off with a few roots at their base, and if put into boxes soon make nice plants for planting in the borders in April. Violets should be put into cold frames in September, well watered in, and kept close and shaded for a few days afterwards. They must be ventilated on all favourable occasions and be well protected from frost. Solanums, Salvias, Arums and other plants that have been grown in the open ground always recover the check caused by lifting more quickly if put into a close frame and shaded for a few days. Spiræas, Lily of the Valley, Dielytras, Campanulas pyramidalis and persicifolia, Liliums and other forcing plants when potted in the autumn should be placed in a cold frame till wanted for the greenhouse. Lettuce and Endive plants for winter use should be put into a frame before there is danger of severe frost. I always sow a bed of Parsley about the end of June and place a frame over it in October. It is well ventilated during mild weather and covered during frost, and gives a supply of Parsley through the winter and early spring.

The Frame in Winter.—Its great use at this season is to protect the many occupants of our gardens which are not perfectly hardy and others, which more often than not it is the damp rather than the cold that kills them if left in the open ground. Bulbs, after being taken out of the plunging material, should be placed in a cold frame and gradually exposed to the light, being taken into the greenhouse as required. They can also be brought into flower in the frame a considerable time before those in the open.

J. RAWLINGS.

The Gardens, Ridgemount, Enfield.

NOTES OF THE WEEK.

The National Rose Society.—The provincial show (the date is not yet fixed) of this society will be held at Salisbury, one of the most suitable Southern cities for such an exhibition.

United Horticultural Benefit and Provident Society.—The monthly committee meeting of this society was held at the Royal Horticultural Hall on Monday, December 13. Mr. Charles H. Curtis presided. Four new members were elected and one nominated. The sum standing to the credit of the late Mr. J. C. Tallack in the society's books, viz., £39 1s. 6d., was granted to his widow. Three members over sixty years of age were granted their interest as per Rule 18. Two distressed members were relieved from the Benevolent Fund. Sick pay since the last meeting was £44 7s.

Reading Gardeners' Association.—At the fortnightly meeting held in the Abbey Hall on Monday, the 6th inst., there was not such a good attendance as has been recorded on recent occasions. The president, who occupied the chair, facetiously remarked that perhaps some of the members felt a little nervous, as there was to be no regular subject, the evening being devoted to impromptu speaking. The minutes of the last meeting were read and confirmed. The hon. secretary presented the balance-sheet of the recent exhibition, which showed receipts, £32 10s. 8d.; expenditure, £13 15s. 2d.; net proceeds, £18 15s. 6d. The latter sum has since been augmented by a generous gift, from one who is not a member of the association, of £1 4s. 6d., to make the amount an even sum of £20, by which the Gardeners' Royal Benevolent Institution and the Royal Gardeners' Orphan Fund will benefit. With the object of encouraging impromptu speaking a number of questions had been prepared, each bearing a number. The chairman then drew from a batch of tickets bearing corresponding figures, and the holder of the number called immediately rose and spoke on the subject named on his question paper. The programme worked out remarkably well, as apart from the regular speakers at the meetings, several members not frequently heard, notably some of the younger gardeners, were induced to display some of their oratorical powers. After the questions were exhausted, discussion was invited, and an exceedingly instructive hour ensued. Mr. Parfitt being obliged to leave early, the chairman of the committee (Mr. A. F. Bailey) presided during the latter half of the evening.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Brachyglottis repanda.—I was interested to see the illustration on page 590 of Brachyglottis repanda flowering in New Zealand. In this country it is by no means a free bloomer when grown in the open in ordinary conditions. A few years ago the Rev. Arthur Boscawen of Ludgvan Rectory exhibited a flower-spike in the hard-wooded shrub class at Plymouth. This was not borne by his big plant, which was about 12 feet high and as much through, but was a chance spike from a smaller specimen. While visiting a nursery near Plymouth in 1905 I saw a plant in a large pot which was bearing about twenty flower-spikes, and determined to see what root-restriction would effect for my specimen, which had never bloomed. On my return home I had a trench dug around it at a distance of about 3 feet from the main stem to a depth of 4 feet, and this was completely filled with stones to the ground level. During the winter about a dozen flower-spikes were formed, but were all killed by a severe frost. The next year the bloom-spikes showed no sign of forming until after Christmas, and were not sufficiently advanced to be injured by the frost at the commencement of the year. Later on these developed well, and the bush, which was nearly 8 feet in height and 7 feet in diameter, was literally covered with them, 268 being counted, though there were probably many more. An illustration of this specimen appeared in the *Gardener's Chronicle* on July 18, 1908, likewise one of a flower-spike which measured 12 inches in height and 16 inches across the base. When the spikes had reached perfection, the whole bush was smothered by the inflorescence, and was a very pretty sight. Each cluster was composed of countless, minute flowers of a greenish white tint, and these, when at their best, were decidedly attractive. As a foliage plant it is also very ornamental. The leaves, which uncurl when they are about an inch in length, are at first of a warm ivory tint, a hue they retain until they are nearly 3 inches long, when the upper surface becomes pale green. This colour deepens with age to a dark, glossy green, handsomely clouded with purple-maroon. The under side is coated with a silvery white tomentum, and as many of the leaves display the reverse, a pleasing contrast to the prevailing dark green of the foliage is formed. The ovate leaves, which sometimes attain a length of 12 inches and a breadth of 8 inches, are carried on footstalks from 4 inches to 6 inches in length. The plant was introduced from New Zealand in 1896, and has been known at different times under the names of Senecio Fosteri, S. Georgii and Cineraria repanda.—WYNDHAM FITZHERBERT.

Fruiting of Stephanotis floribunda.—Noticing your answer to "S. B." on the above subject in THE GARDEN of the 11th inst., page 607, I should like to say we have at

the present time three fruits on our plant here coming to maturity. This plant flowered twice last summer, and the fruits set from the first flowering. I was pleased to read your descriptive note, as I was anxious to know more of the fruit. This is the first time I have seen this plant fruiting.—J. S. HIGGINS, *Rûg Gardens, Corwen, North Wales.*

An excellent type of the single-flowered Chrysanthemum.—No one

A GOOD TYPE OF MARKET CHRYSANTHEMUM.

will deny that there has recently been considerable improvement in the single-flowered Chrysanthemums. Points of merit vary according to the uses for which the plants are grown. For instance, growers of these plants for the conservatory or for providing an abundant supply of charming sprays of blossoms for indoor decorations have quite a different standard of quality to that recognised by those who think only of the market. The latter look with disfavour on all single Chrysanthemums unless the blooms have three or four (more or less) rows of petals. They argue that unless the flowers possess several rows of petals they travel badly, and in consequence of this have little commercial value. It is a very good thing that this market standard of single-flowered Chrysanthemums does not generally obtain, for if it did many of the most beautiful would be entirely lost. At the present time there are numerous dainty single varieties; they are of stellate form, and in consequence well adapted for home decorative uses. Some of the prettiest and most beautiful sprays and individual blossoms of the single-flowered Chrysanthemums that I have seen this season have been of star-like form. In a cut state the flowers have kept fresh for fully three weeks, and in a few cases for an even longer period. Readers of THE GARDEN should acquire a few plants of some of these stellate forms for next season's decorations. A true single-flowered Chrysanthemum should contain not more than a double row of ray florets, and these should be arranged sufficiently close together to form a dense fringe. The accompanying illustration shows the form a good single Chrysanthemum should possess. It is an undisbudded spray, and no manipulation has been allowed. The blooms are of medium size, and of this type there are many beautiful examples. A few good varieties are the following: Earlswood Beauty (primrose), Daisy Brett (white), Sir George Bullough (deep yellow), Miss Irene Cragg (white), Mrs. C. Symms (blush pink), The Lion (rosy red), Miss Mary Anderson (blush white), Mrs. J. Ferguson (pink), Miss Annie Holden (yellow) and Gladys Hemsley pink).—D. B. CRANE.

Grease-banding fruit trees.—Does your correspondent P. Clayton, who protests against the practice of grease-banding fruit trees to form traps to catch the female winter moth, assume that the grease is applied direct to the bark, or does he assume that the grease soaks through the paper bands and thus dangerously affects the bark? It is strange that, after this practice has been so long in existence, we should only now hear of this assumed danger. If in putting on paper bands they were of very thin and absorbent paper, it is possible that such injury as is mentioned might occur; but if in all cases only grease-proof paper is used, some three or four times thick, when enwrapping the tree stems, it seems impossible that any grease can penetrate through such bandages and injure the bark. Until some other compound is found that does not quickly harden, cart-grease holds the field as a moth trap.—A. D.

Climbing plants and buildings. I fail to agree with your correspondent John R. Jackson, whose note appears in THE GARDEN for December 4. In reference to the Ivy, he says: "The matted root-fibres which so often cover walls like so many inches of felt are a fruitful source of internal damp and destruction generally." I should like to say that where walls are covered in this manner, my opinion is that, providing the Ivy is properly attended to, it is beneficial rather than harmful. The chief attention required, beyond keeping it within bounds, is an annual cutting off of all the leaves, and here this is best done at the beginning of April. If done then it is again quickly covered with clean young foliage. Given this attention, the foliage would throw off an enormous quantity of rain that would otherwise come in contact with a bare wall and be absorbed by it. The root-fibres that cling so tightly to the wall would, in the ordinary course of nature, quickly absorb any moisture that by chance came in contact with the wall. The leaves would in the same manner give off this moisture by their continual transpiration during daylight. As is generally known, the amount of water given off from the leaves in this form is very great. Ivy, therefore, keeps the walls dry and preserves them. And this is not all—it keeps the inside of the building cool in summer and warm in winter.—S. SMITH, *Birmingham.*

A curious Saxifrage.—I venture to send you a flower-spray of Saxifraga pyramidalis, which is, I think, showing a curious form of propagation.—(Mrs.) R. L. HEYGATE, *The Wells, Bromyard.*

THE EDITOR'S TABLE.

WE invite our readers to send us anything of special beauty and interest for our table, as by this means many rare and interesting plants become more widely known. We hope, too, that a short cultural note will accompany the flower, so as to make a notice of it more instructive to those who may wish to grow it. We welcome anything from the garden, whether fruit, tree, shrub, Orchid, or hardy flower, and they should be addressed to The Editor, 20, Tavistock Street, Covent Garden, London, W.C.

FRUITS OF CYDONIA JAPONICA FROM RINGWOOD.

Dr. R. M. Smyth, Broomy Hurst, Linford, Ringwood, sends us a small branch of this handsome flowering shrub, which is carrying eight of its Quince-like fruits. Dr. Smyth also sends us photographs of the shrub, which is bearing a very full crop, but unfortunately these are not suitable for reproduction. Our correspondent writes: "I am sending you a fruiting branch of Pyrus (Cydonia) japonica. I send you also two photographs of the tree. It generally fruits every year, which I have been told is rather uncommon in this county. The fruits ripen in good seasons and are sweet smelling, but taste somewhat of turpentine and are quite inedible. I do not know whether cooking might rectify this. There are still many fruits on the tree in spite of the frost. This specimen has been planted about seven years, and has to be cut back severely every year owing to the limited wall space. I have seen Pyrus japonica in Japan growing in the Bamboo Grass with Violets and trailing all over the ground; the effect was very beautiful. I remember seeing this in a glade near Yokohama, where there was a little temple with a hedge of white Azalea growing about 4 feet high, giving a charming effect."

Mr. G. D. Rowles writes: "I enclose fruit of the Japanese Quince, Cydonia japonica, for your table. The tree from which they were gathered quite recently is trained to the front wall of a cottage, position due west. The soil in which it is growing can hardly be termed ideal, as it consists of a stiff clay surmounted by about 3 inches of ordinary mould; yet since its introduction to such position as a young plant four years previously it has flourished amazingly. The quantity of fruit borne this season totalled over a gallon; hence some idea of the amount of bloom produced in spring can be imagined. The production of fruit is not unnatural, yet, taken generally, the setting of the bloom is not of frequent occurrence, and admittedly uncommon with young trees. Fruiting, however, is not a recognised qualification, the beauty of its flowers and almost evergreen nature being the considerations that render it so valuable an adjunct to the garden. Though considered by some to possess poisonous properties, such opinion can hardly be verified, for although the flavour is not that of the Pear or Apple, they are used as a flavouring to tarts, puddings, &c., of the last-named fruit. Again, they have been known to be utilised for placing among linen and furs to prevent moths, and I am informed were set great store by for such purposes by housewives of old."

[The Cydonia has fruited remarkably freely this year, and we thank our correspondent for the fine specimens he has sent.]

VACCINIUM CORYMBOSUM FROM CAMBERLEY.

Mr. J. Crook, Fingest, Camberley, sends us sprays of the pretty Vaccinium corymbosum

YOUNG PLANTS ON FLOWER-STEM OF SAXIFRAGA PYRAMIDALIS.

(virgatum), the wood and leaves of which are coloured a good crimson-scarlet. Mr. Crook informs us that this shrub colours particularly well in the Camberley district, and forms a welcome splash of colour in the shrubbery during the late autumn months.

THE FRUIT GARDEN.

FRUIT NOTES.

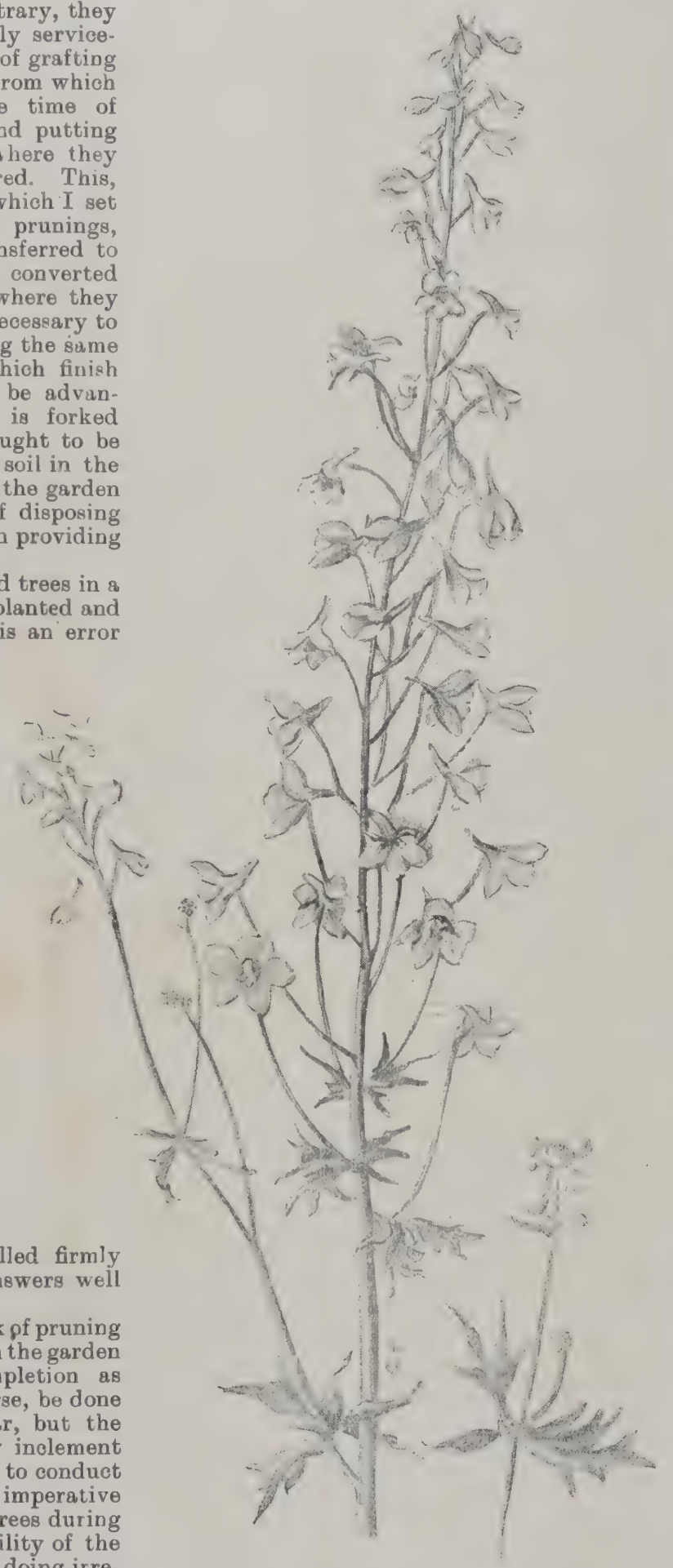
WEEDS AND PRUNINGS.—At first glance it may be thought that these are not of the smallest value to the fruit-grower; on the contrary, they can be made distinctly serviceable. Those who do a certain amount of grafting each spring always choose the shoots from which they purpose to make scions at the time of pruning, tying them up in bundles and putting them under a north wall or hedge where they will lie dormant until they are required. This, however, is not the particular use to which I set out to call attention in regard to the prunings, but to the fact that if they are transferred to the garden smother they can easily be converted into ash and returned to the ground, where they will yield the potassic food which is necessary to satisfactory progress. It is something the same with the perennial weeds. Those which finish their life-history in one season may be advantageously turned in when the land is forked over; but those of a perennial habit ought to be burned and find their way back to the soil in the form of ash. It will thus be seen that the garden smother is not only a ready means of disposing of rubbish, but is also most valuable in providing essential food for the growing crops.

OLD TREES.—To grub up all the old trees in a garden before young ones have been planted and have had time to come into bearing is an error that is sometimes made. The old specimens may not produce fruit of the same splendid size and quality as their younger relatives, but their burdens are better than none at all, and they should never be destroyed until their successors have come into profitable cropping. Instead of grubbing them, the grower should endeavour to improve them by wholesale removal of superfluous branches, so as to admit an abundance of light and fresh air into all parts of the tree, and by giving plentiful supplies of food to the roots. There are two methods by which this nutrient matter can be conveyed to the roots. The first is by repeatedly pouring the strongest liquid manure on to the surface and giving it time to soak well down; and the second is to bore holes with a crowbar at intervals of about 2 feet in all directions and repeatedly fill these with the strong liquid; afterwards the holes are filled firmly with rich compost. Either system answers well and the trees improve immensely.

PRUNING.—The very important work of pruning Apples, Pears and other large fruits in the garden should be pressed forward to completion as quickly as possible. It can, of course, be done during the early months of the year, but the weather then is often so extremely inclement that it becomes practically impossible to conduct any outside work in comfort. It is imperative that no attempt shall be made to cut trees during severe frosts, as there is always a liability of the frost getting into the open wound and doing irreparable injury to the tree. All kinds may be safely dealt with now.

STORED FRUITS.—It is essential that fruits which are stored, no matter how admirably adapted for the purpose the house may be, shall be frequently examined. Although the cultivator will take the utmost care in handling the specimens with a view to precluding the possibility of the slightest bruise, one can never tell when a particular fruit will commence to decay, and unless this is at once removed the trouble will spread to others in the immediate neighbourhood, and the result may be the loss of half the entire crop. Periodical inspections will largely obviate this danger, and the losses will be reduced to a minimum. All fruits should be individually handled and carefully placed back again into their positions. In the case of many amateurs there is no proper convenience for storage, and in these circumstances examination becomes even more important. Endeavour to have the Apples and Pears in single layers; but if they have to be heaped, care must be taken that they do not heat. The choicest Pears ought to have a drier, warmer atmosphere than ordinary varieties and Apples, and must be handled with even greater care. The room should be dark, of equable temperature and well ventilated.

FRUIT-GROWER.



DELPHINIUM MOERHEIMII. (*Much reduced.*)

(*See page 631.*)

APPLE PRODUCTION.

WHEN it is reported that English-grown Apples have been exported to the United States, home readers are amazed. America has become, in its northern regions, such a great Apple-producing country and sends us, especially from Canada and British Columbia, such immense quantities of superb fruits, that it does seem difficult to understand the exportation of our fruits to that naturally rich Continent. We may also well wonder how our more juicy fruits bore the packing and transit. Certainly it is unlikely that home-grown Apples could pass through the ordeal of a voyage across the Atlantic in barrels, as American Apples come to us, because our fruits are much more juicy than are the American. If they were packed in paper and with wood-wool, then no doubt they arrived in New York safely. Certainly it is just possible that with so many residents in America who have migrated from England, a great—indeed, almost a passionate—desire to taste English Apples might exist, and this would create the demand; and, in any case, if such demand grows, there is open to home growers a wider field for their industry than has yet presented itself. Whatever may be the extent of Pears, Plums and Cherries planted each year, whether for market culture or for private purposes, without doubt the area of Apples planted equals all other tree fruits. We have no other fruit of the same value or usefulness, and, apart from its market value as an early crop, there is the greater economic value of the Apple to the nation at large in its long-keeping properties, for with good culture, perfect maturation, and by growing the best keeping varieties of good quality and cropping, it is quite easy to have first-class fruits many months after their harvesting.

But the Apple, apart from its special keeping property, has intrinsic value as a food product. No other fruit possesses more wholesome nutritive flesh or is suitable for more variable uses. Still further, no hardy fruit is more easily grown. It is rare indeed to find the garden, however small it may be, that does not contain one or more Apple trees. But the industrial value of the Apple is most clearly demonstrated by the large extensions seen in planting for market culture. The market grower is eminently a practical man and knows well what he is about. He is under no wild hallucination as to what may be done by adopting French methods in gardening, neither does he regard Apple culture from the so-called scientifically experimental point of view. Apple culture is to him, as to all practical gardeners, very simple, and if he knows what varieties to grow, the form of trees most suitable and, not least, how profitably to market his produce, all the rest is simple enough; and it is just these things the market grower does know, and no scientist to-day can give him points.

It is some of this market knowledge I wish to see more widely spread. What is so good and so practical in the one case is good for the small holder, the professional gardener, the amateur and the cottager. But while the market grower prefers rather to grow varieties that mature early and are soon off his hands, the private grower who wants a long supply of fruits, especially for cooking purposes, must make a diverse selection and plant accordingly. Granted, it may not pay the market grower to grow late sorts and store them till after Christmas; there is incidental to such keeping some loss of fruit by injury and decay, there is much additional cost created by reason of store-room and labour, and there is risk of finding, after all, that the ante-Christmas prices are no better than the earlier ones. All this has to be regarded from the purely economic or market point of view. Those who grow for themselves have no such concern, yet to them Apples will be the most profitable, financially, if they can be had over a long season.

A. D.

THE GREENHOUSE.

GLOXINIAS AND THEIR CULTURE.

JUDGING by various reports and by the fine exhibits staged at the large shows during the past summer, Gloxinias appear to be advancing in popularity. Under the care and skill of the cultivator these beautiful florist's flowers have lately shown wonderful improvement in habit and variety, the colours now ranging in almost every shade from pale blue, pink and mauve to deep purple, blue and crimson; while the newer spotted varieties, beautifully mottled and marked in the various colours, are a most valuable addition to the original type. Where a warm house and good general conditions are available, Gloxinias may be easily sown and flowered the same season. From seed sown in January last I had, about the middle of July, plants in 5-inch pots measuring nearly 2 feet across with from twelve to twenty good blooms.

The seed, which should be obtained from a reliable source, is best sown early in January in deep pans, using a fine, sandy soil (not covering the seed), and placed in a close frame of about 65° to 70° night heat. Excessive moisture must not be allowed to collect round the seeds while germinating, as Gloxinias, especially in the young stages, are quickly affected by damp. When germinated, the seedlings should be removed from the frame and pricked off singly into pans or boxes, growing them on in a temperature of not less than 60° night heat. The soil used should be fine peat, leaf-soil and sand. When large enough, pot off into small pots and ultimately into the flowering pots (5-inch or 6-inch), using a good mixture of leaf-soil, peat, yellow loam and sand with a little good manure and charcoal. The soil should be as rough and fibrous as possible. Watering must always be attended to with the greatest care, and the atmosphere kept moist by syringing and damping and free from draughts or checks of any kind. The plants require all the light possible, but must be shaded from the bright sun. It is advisable to fumigate or spray with an insecticide at intervals as a preventive of thrip, which is sometimes very troublesome. Feeding is not necessary the first season, but a little weak liquid manure will be found beneficial when the blooms begin to appear.

The tubers for spring flowering should be gently started about the middle of December, laying them in shallow boxes, barely covering them with light soil or Cocoanut fibre. It is better to allow them to start slowly without forcing, as this tends to weaken the young growths. Pot them off and grow on as before until the plants are well developed and showing buds, when a weak liquid manure may be applied, gradually increasing until the plants are in flower. I use Wellson's Plant Food, which seems to suit Gloxinias admirably. If the plants are required for exhibition, they should be gradually hardened off by admitting air, but not too suddenly. If placed on the floor in a cool, moist and shady position, they will retain their blooms fresh for fully a fortnight. C. H. M.

AN INTERESTING WINTER-FLOWERING GREENHOUSE PLANT.

(PLECTRANTHUS CRASSUS.)

THE opening up within recent years of British Central Africa has been the means of many new plants being introduced to our gardens. Among them the Natural Order Labiatæ is strongly represented, one member of this family, Coleus thyrsoideus, first sent here about a dozen years ago, having already attained a large amount of popularity, as its spikes of bright cobalt blue blossoms are freely borne during the winter months.

A LITTLE-KNOWN GREENHOUSE PLANT, PLECTRANTHUS CRASSUS.

This was followed by two other species, Coleus shirensis and C. Mahonii, both good flowering plants; but, wanting the bright colour of Coleus thyrsoideus, they are never likely to be grown to the same extent as this. Plectranthus crassus, the plant herewith illustrated, differs only in a slight degree from Coleus, and it is a pretty, free-flowering and easily cultivated plant. This Plectranthus was introduced to Kew from British Central Africa four or five years ago, and numerous flowering examples may often be seen in the gardens. It forms a sturdy-growing plant, which branches sparingly, the stout erect stems being clothed with pale green ovate leaves. The flowers, borne in narrow terminal spikes, are arranged in whorls, which develop one after the other and thus maintain a succession for a considerable period. Their colour is a kind of lavender blue.

Cuttings of this Plectranthus root very readily, but, as already stated, it does not branch freely. For this reason it is a very good plan to select the strongest shoots as cuttings, and instead of stopping them, allow them to grow on and flower. The result of this is long spikes of blossoms, and the effect such as may be seen in the accompanying illustration. Good examples may be flowered in pots 5 inches in diameter. Ordinary potting compost readily fulfils their requirements. This Plectranthus flowers at different seasons of the year, though its blossoms are, as a rule, most appreciated during the depth of winter, at which time it may be had in bloom. Like most of the Central African plants, it needs for its successful culture a structure somewhat warmer than an ordinary greenhouse. At Kew it does well in the intermediate compartment of the T range in company with Begonias, Eranthemums and plants of that class. H. P.

CLEANING GREEN HOUSE GLASS.

AT this season, especially in the vicinity of large towns, there is no work connected with the greenhouse that repays doing better than giving the glass a good washing. In most gardens the interior of greenhouses is usually cleaned thoroughly at this time and the outside neglected. This is a great mistake. Fogs, which are prevalent now, always leave a thick deposit of soot and other foreign matter on the glass, which effectually shuts out a considerable amount of light, much to the disadvantage of the plants.

ROSE GARDEN.

NOTES ON NEWER ROSES.

XIII.—THE WICHURAIANAS.

(Continued from page 603.)

THE deserving popularity of this comparatively new class has induced Rose hybridists all the world over to try and improve it, with the result that many new varieties are sent out year by year, some of them (as might be expected when continents so far apart as Australia, Europe and America are their birthplace) hardly improvements on varieties already in cultivation. I have tried what I consider the best of them in my own garden (where I have a fairly representative collection of nearly forty different varieties), and of those of recent introduction I have picked out the following six varieties, all of them good and which can be thoroughly recommended from one point of view or another. I do not say they are the best six of recent introduction, but they come very near it. I have confined my selection to varieties introduced during the last three years, namely, 1906, 1907 and 1908.

White Dorothy (B. R. Cant and Sons and Paul and Son, 1908).—This sport was a case of the expected happening. Dorothy Perkins was bound sooner or later to give us a white sport, and it appears to have sported in a good many places. Some varieties are simply paler in colour, but that before us can fairly be called

white, and as such it is certainly desirable and welcome and will become very popular. There is a very slight difference between the two sports that were put on the market simultaneously by the two firms previously mentioned, but it is only discoverable in the bud stage; with the exception of colour, the sport is identical with its parent Dorothy Perkins, and is as free flowering and as strong a grower, in both of which respects it is an improvement on Schneeball, which I believe was introduced into commerce as a White Dorothy Perkins. While I am talking of Dorothy Perkins I will mention two other sports that are both excellent in their way.

Dorothy Dennison (A. Dickson and Sons, 1908). This sported first in the garden of Mr. Dennison, a well-known and keen exhibitor of the show Rose. I saw it first at Newtownards last year, and was much taken with its beautiful delicate colour—a pale yet bright shell pink, shading off until the base of the petals reach creamy white. It takes after its well-known parent in all other respects and is said to have even a larger truss, and it shares with the next-mentioned in my list the distinction of being one of the two most beautiful of all the Dorothy Perkins sports of a shell pink colour. I cannot make up my mind as to which I prefer—for table decoration I prefer Dorothy Dennison; outdoors, I think I should vote for

Lady Godiva (Paul and Son, 1908).—This is a particularly delicate colour, a soft, pale flesh pink, a description that in no way conveys its charm. I do not know its history—whether it arose in the nurseries of this well-known firm or whether they acquired it—but there is no doubt it is a very beautiful sport that deserved propagation, and will, when better known, receive due recognition and be extensively planted.

François Juranville (Barbier, 1906).—We owe many good wichuraianas to this firm, and this is one of the best they have sent out. The flowers are rather large for the class, slightly bigger than their well-known Gardenia; colour deep, but bright salmon pink, shading off to yellow at the base of the petals; produced in small clusters of three, often coming singly, sweet scented, and one of the early-flowering section. My plant of it was one of the brightest things in the garden when in flower, and attracted a lot of admiration; the foliage and habit are good.

Evangeline (M. H. Walsh, 1907).—This is well worth growing if only for its scent, which is very powerful, especially in the early morning. It is a single flower that lasts well on the plant, and is borne in large, well-shaped clusters; colour bright pink, with a fairly large white eye. It is a particularly strong grower, and I have my own doubts whether it is a wichuraiana at all, but it has been so sent out. It is a great rambler, and a really beautiful Rose when trained up a tree or over a pergola, but it is too rampant for a pillar. My plant reached me labelled Hiawatha. Personally, I do not think I was the loser; at any rate, it is, to my way of thinking, a good deal better than Paradise, which was sent out by the same raiser at the same time and has been far more boomed in the Press, possibly on account of its curiously reflexed petals, which render the plant far less valuable from the decorative point of view. My sixth wichuraiana has caused me some trouble to select—there are so many; but I have decided in favour of

Joseph Lamy (Barbier, 1906).—A beautiful and distinct colour that recalls that old Rose Marie Lavalley, which seems to be in danger of being lost to cultivation, beautiful though it is. Joseph Lamy is the result of a cross with Laurette Messimy, but there is not much trace of that variety in its flowers, which are semi-double, fairly large and of a white ground colour, suffused pink, very effective and distinct, and produced freely on long footstalks. It is not such a strong grower as some of the varieties, and should make a good pillar.

Purley. HERBERT E. MOLYNEUX.

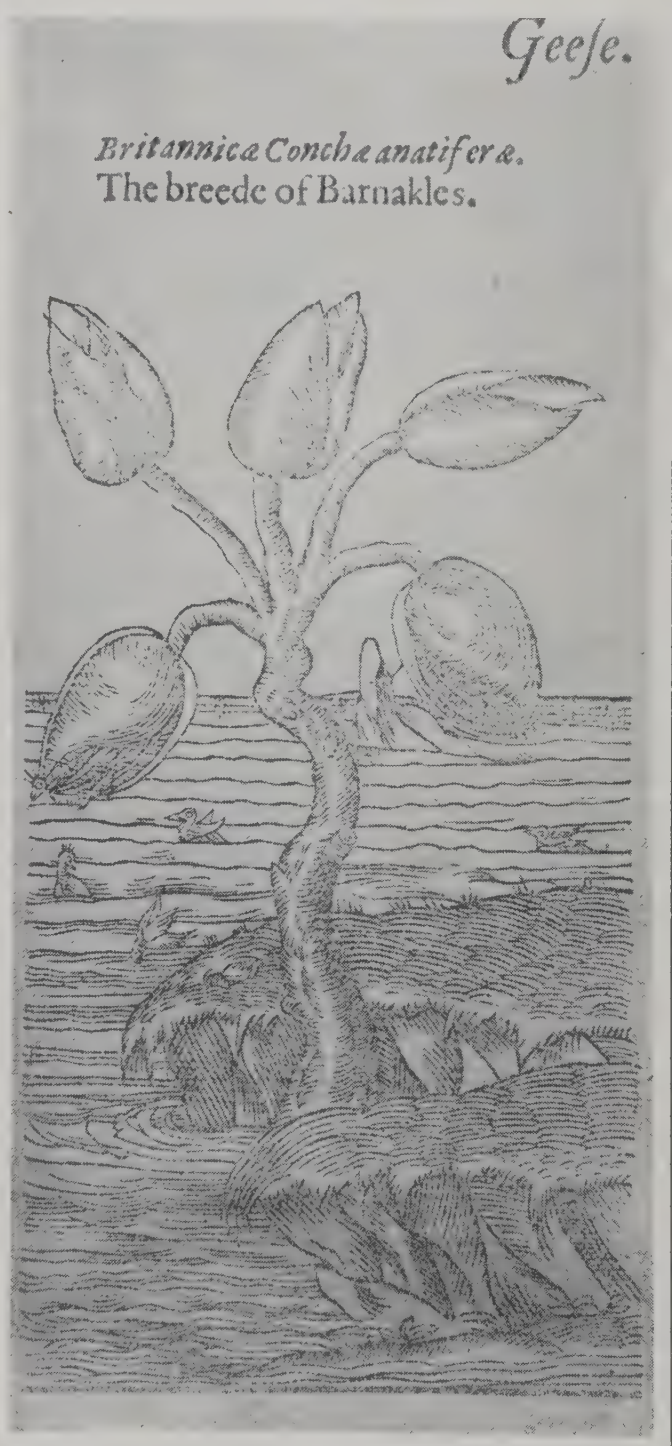
JOHN GERARD.—II.

HIS HERBAL.

WITHOUT the Herbal, Gray's words might have been descriptive of Gerard,

> Full many a flower is born to blush unseen
> And waste its sweetness on the desert air.

To-day he is probably the best-known and most frequently quoted Old English writer on botany and gardening.



"BARNACLE GEESE," FROM GERARD'S HERBAL.

From his own times, when the Laureate, Michael Drayton, thus refers to him in his "Poly-olbion" (1613), speaking of helpful herbs,

> Nor skilful Gerard yet shall ever find them all,

down to our own days, when we so often meet his name in gardening papers and books, he has occupied a position of his own.

That which has made him so famous must needs be of interest.

(*a*) ITS CONTENTS.

The volume is a thick folio with 1,392 pages of matter dealing with plants, prefaced by 20 of introduction and no less than 71 of indexes. It is copiously illustrated, and, in addition to upwards of 1,800 woodcuts, has an interesting frontispiece and a half-length portrait of the author facing page 1. As it is an attempt to enumerate and classify the whole of the then known vegetable kingdom, it is divided into three main divisions or books, which are each of them sub-divided into chapters and sections.

All the old botanists and herbalists divided plants in an arbitrary and whimsical way. In copying Lobel, Gerard adopted the best possible division. How unlike it was to our modern system may be seen from a glance at the titles of the books: "(1) The first booke hath Grasses, Rushes, Corn, Flags, Bulbose or Onion-rooted plants; (2) The second, all sorts of herbes for meat, medicine or sweete smelling use; (3) The third, hath trees, shrubs, bushes, fruit-bearing plants, Rosins, Gums, Roses, Heath, Mosses, Mushrooms, Corall and their several kindes." It made strange bedfellows. To compare the Herbal with a modern work, the eight hundred chapters into which the books are divided may be considered as so many genera, each containing so many species, which are all fully treated, and their general description, name, habitats, time of flowering and medicinal uses given.

(*b*) ITS COMPILATION.

How was such a vast work produced? In two ways. First, by the author's recording his own personal experience and knowledge of plants; and, secondly, by his "perusing divers Herbals set foorth in other languages," and setting down the results of his researches.

A particularly famous book of the sixteenth century was the "Stirpium Historiœ Pemptades sex" of Rembert Dodoens, the Leyden Professor. This was published in 1583 and represented thirty years of hard work. A London publisher who recognised its value, no doubt with an eye to business, commissioned a certain Dr. Priest, "one of our London college," to translate it into English. The translator, however, died as soon as his task was finished, and before it could be published. What happened then is not very clear. According to Gerard, the translation "perished"; but according to Johnson, the editor of the second edition of the Herbal, he made use of it, and is blamed for disguising the fact. "I cannot commend my author for endeavouring to hide this thing from us." Sometimes I wonder if this statement of Johnson's is correct. If he could make a mistake in recording the year of Gerard's death, he might also be wrong in saying that Gerard used Priest's translation. Also, when a point is made of his being but a poor Latin scholar, it is well to remember that he never disguised the fact himself, and that he knew enough to write prefaces and dedications to both editions of the catalogue of plants in his garden.

However this may be, the result of Gerard's labours was an epoch-making work by no means free from error, but eminently serviceable, as it supplied a much-felt want. No small part of its popularity was the inclusion of so many "cuts." Probably only sixteen to twenty-five were original, the rest being obtained by the publisher, John Norton, from Frankfort, being the same blocks that had been used in the Dutch Herbal of Tabernæmontanus.

(*c*) ITS FAME.

The quotation from the poet Drayton illustrates the position the work took in the years immediately succeeding its publication (1597). It was well timed. It was in the mother tongue. It included all plants then known. It was more profusely illustrated by far than any Herbal ever had been. All these things helped to secure for it the prominent place in garden literature which to the present time it has undoubtedly retained.

The Herbal was born under a lucky planet. Just when it was getting a little out of date, Thomas Johnson, a citizen and apothecary of London, brought out a second edition (1633). He called it a very much enlarged and amended edition, and so it was. He had culled the good things from several newly published works; he had corrected a large number of mistakes and enriched it with the descriptions of 800 new plants and about 900 more woodcuts; he had

incorporated his own practical knowledge; in fact, it was all but a new book when it left Johnson's hands.

Thus it became more useful than ever and more famous than ever. Let us remember Johnson when we think of Gerard. It is his edition which has been the one more generally used since it was given to an expectant world. As Boswell increased the fame of the great Doctor, so has this Thomas Johnson increased that of Gerard.

(*d*) ITS INTEREST.

The interest of the Herbal to-day is almost wholly historical. It is the watershed of gardening and botany and medicine and husbandry. It marks a transition period in garden literature. Although primarily intended as a book of simples, the purely decorative side is not ignored. Tulips occupy the whole of Chapter 77, which he ends by saying no ancient or later writer had ever ascribed any virtue to them, but they are esteemed for the beauty of their flowers. In another direction we are taken back to the medical practices of bygone days, when there were so many remedies known to the learned that one wonders why anybody ever was ill; when in practical life the knowledge of the properties of a few simple herbs was part of the stock-in-trade of every poor man's wife, and no garden, great or small, was complete without a certain number being included in it, such as Sage, Rue, Fennel, Tansy and the like.

He that eats Sage in May
Shall live for aye.

Again its contents tell the tale of the passing of authority as authority. The "I saw it in the paper" of to-day had its counterpart in "as saith Dioscorides," or "as saith Columella," for what had come down from them must not be questioned. The old blind faith in antiquity and tradition was giving way as new facts about Nature came to light, and people began to think more for themselves. The curious belief that there were trees "whereon do grow certain shells" which in time became Barnacle Geese seems to have been accepted by Gerard in perfect faith, "For the truth whereof if any doubt, may it please them to repair to me and I shall satisfie them by the testimony of good witnesses." Johnson, although he includes "The Barnacles" (but with a different woodcut), says they have another "originall, and that by egges as other birds have." It was the writing on the wall.

The doctrine of plant signatures is one of those pleasant by-paths which Gerard invites us to follow. "The Mercy of God," said William Coles in his "Art of Simpling" (1656), "has given plants particular signatures whereby a man may read even in legible characters the use of them." P. Lauremberg's note about Garlic in his "Apparatus Plantarum" is a good illustration. "The tunic of Garlic is ruddy, it expels blood. It has a hollow stalk, and helps the affections of the wind pipe." An example from our author may be found under Polygonatum (Solomon's Seal). When the root is cut through, marks something like two equilateral triangles intersecting each other will be found. To the old herbalists these were an indication of the plant's uses. Hence it was said to seal wounds and knit broken bones. "That which might be written of this herbe, as touching the knitting of bones . . . woulde seeme unto some incredible, but common experience teacheth, that in the whole worlde there is not to be found another herbe comparable to it for the purposes aforesaid" (Gerard, 1597 edition, page 759).

The last item of interest that I must touch upon is the sidelights which are thrown on the manners, customs and ways of Elizabethan England. In some cases they disclose differences, as the frequent references to the bites and stings of animals and creeping things reveal a much wilder country than it is to-day; in others they show that in some ways human nature was then much the same as it is now. Golden-rod was imported from Germany and sold at 2s. 6d. an ounce. When someone found it growing at Hampstead, it became valueless and could not be given away, "which plainly setteth forth our inconstancie and sudden mutabilitie esteeming no longer of anything, how pretious soever it be, than whilst it is strange and rare," thus verifying an Old English proverb, "Far fetcht, and deare bought is best for ladies." JOSEPH JACOB.

THE FLOWER GARDEN.

PREPARING GROUND FOR ROCK GARDEN.

[*In Reply to G. Clarke.*]

YOU had better excavate the soil over the entire area, and remove the flints and stones by screening or otherwise, as may appear best. If possible, the excavated area should be made wider than the basal area of the intended erection, so as to secure effective drainage around. If you make the excavation of a depth of 2 feet, place aside the soil, and introduce brick-bats, rough clinkers or similar material to a depth of not less than 9 inches, a good drainage will be secured. If you are restricted for working room, divide the ground lengthwise and treat the sections separately; or, by taking a 5 feet wide section at one end of the ground, allowing this to extend to the full width at your disposal, and removing the soil to the other extreme of the ground, the whole area could be treated thus in six equal sections. The first way would be the most economical and would save the removal of much soil. In this way the sections could be drained as the work proceeded, while the first removed soil would fill up the last opened trench. The principle is that of trenching land on a large scale.

For many alpine and rock plants the clayey loam should be replaced by soil of a lighter nature, or much sand should be introduced. The original soil would do quite well to give increased height to the erection, but too great a height is not desirable on so small a scale. So far as its shape is concerned, you might reserve on the western side a portion for peat and moisture loving plants, the portion to be first pegged out and not excavated for drainage purposes like the remainder. Subsequently a minor excavation should be made and soil introduced suitable for Iris Kæmpferi and other plants. Just what might be done depends very much upon your own desires and upon ways and means, and with the assistance of a specialist in such matters (one who could view the situation) a very interesting garden may be made. The idea of a rough, paved path meandering through the garden is good, but it should be of a very informal character and planted with miniature alpines. You say nothing of the rock you intend using, and this also is important.

A BORDER OF WALLFLOWERS AND FORGET-ME-NOTS.

ONE of the prettiest effects to be found in gardens in spring is that produced by a judicious combination of Wallflowers and Forget-me-nots. The accompanying illustration depicts a border planted thus. Frequently Wallflowers are planted rather thinly and the Forget-me-nots dotted about in an irregular manner between them; but in the border illustrated the Forget-me-nots are used as an edging to the Wallflowers. Although the planting is best done in autumn, it may be successfully performed in early spring—say, the end of February—if the weather is open and the soil in suitable condition. It is best to use Wallflowers of one colour only in each bed or border when combined with Forget-me-nots.

A BORDER OF WALLFLOWERS EDGED WITH FORGET-ME-NOTS.

DELPHINIUM MOERHEIMII.

THIS new Delphinium is a charming white-flowered variety of considerable merit. As will be seen by the much-reduced illustration on page 628, the flowers are by no means crowded, and the stem is of a good branching character. It is said to be the result of crossing D. Belladonna with D. chinense album, and possesses the continuous-flowering character of the first-named parent. When shown by Messrs. William Cutbush and Sons of Highgate before the Royal Horticultural Society on June 22 last, it received a considerable amount of attention and was deservedly granted an award of merit.

GARDENING FOR BEGINNERS.

GARDEN WORK WEEK BY WEEK.

FLOWER GARDEN.—Whenever the weather is open, all gravel walks and also lawns should be given a good rolling, as the recent frosts will have made the surface of both rather loose. Before rolling the lawn see that all worm-casts are distributed by means of a vigorous sweeping with a lawn broom or besom. There is nothing like a good bout of rolling or digging for working off that heavy feeling usually experienced after eating the Christmas pudding and turkey, and if the children are given an opportunity of indulging in rolling the grass, they will enjoy it and derive much benefit thereby. Should falls of snow be experienced, the work of clearing paths will have to be attended to and care should be taken that large quantities of it are not thrown on to soft plants that would most likely be injured by the excessive weight placed upon them suddenly.

House Decoration.—This week will see a vast amount of decoration done indoors, and there are a few points that should not be lost sight of in carrying out the work. It is essential, first of all, to decide on some definite scheme, and subsequently adhere to this as closely as possible. It should also be remembered that a room may look very nice indeed by daylight and be a partial or total failure when artificially illuminated, or *vice versâ;* hence it is necessary to know under what conditions it is likely to be most seen. If to be used by daylight only, matters are simplified, as most foliage and flowers look well thus; but if required to look at its best at night, the work of decoration should be carried out by artificial light. It is well to remember that flowers or foliage of violet, mauve, maroon, very deep crimson and blue tints do not show up well by night, and these should, where possible, be avoided. Bright scarlet, pink, salmon, white and terra-cotta are the best to use for artificial illuminations. Any ribbons, papers, coloured bast or other inflammable materials used must be kept at a safe distance from gas or other burners. In arranging pot plants, try, as far as possible, to keep the more tender ones in the warmest parts of the house, and use only very hardy ones for draughty corridors and other cold places.

Greenhouse and Frames.—Where Perpetual-flowering Carnations were lifted from the open, potted up and placed in the greenhouse in October, they will by now be quite at home in their new quarters, and should be giving us flowers for cutting. Any dead or decaying leaves should be promptly removed and the plants given the lightest possible position, with good ventilation whenever the outside temperature will allow this to be done. A temperature of 48° Fahr. will suit them admirably, although on sunnydays it may be allowed to rise to 55° Fahr. Under these conditions water is not likely to be needed very frequently, and due care must be exercised in this respect. Should the dreaded rust disease appear on the leaves, promptly spray the plants with a mixture of methylated spirit and water, one part (by measure) of the former to one hundred parts of the latter.

Trees and Shrubs.—Heavy falls of snow may be experienced any time now, and in the event of this occurring it should be remembered that it will be necessary to remove it from trees and shrubs of an evergreen character, otherwise the weight of the snow will be liable to break many of the branches and thus irretrievably spoil the symmetry of the specimens. Generally, a careful shaking of the branches will suffice; but where this fails to dislodge the snow, recourse must be had to a stiff besom, using this with care so as to avoid injuring the buds.

Lessons of the Year.—With the close of a year every wise gardener will turn up his or her diary or other gardening notes and take account of the failures and successes which have been experienced during the year that is about to pass into history. I fear that more failures than successes have been recorded during 1909, a year that will live long in our memories on account of the cold, sunless summer; but the successes will be all the more pleasing. But the gardener is a philosophical mortal and is always hoping for better times. With all the failures, I am sure all readers of THE GARDEN will have derived much pleasure from their gardens, be they large or small, and my wish, on the eve of a new year, is, "Success to every reader, and especially to those who will be beginners in gardening during 1910." H.

1.—A TYPICAL PLANT OF THE SCARLET AVENS (GEUM) SUITABLE FOR DIVISION.

INCREASING THE GEUMS AND SPIRÆAS BY DIVISION.

WE have every reason to be grateful to those excellent horticulturists who, in the past, strenuously and persistently worked to create an interest in hardy flowers. It is not a great many years since the practice of planting tender greenhouse subjects in the outdoor garden was in vogue, and beds and borders of most British gardens were largely devoid of beauty, except throughout our summer season. All this is now changed. By observing a wise system of planting and a careful discrimination of subjects, the hardy border may be made interesting at all seasons, and during fully seven or eight months of the year this part of the garden may be regarded as a "thing of beauty."

Readers who are beginners in the cultivation of hardy flowers should remember that in planting a border of hardy perennials the first expense is practically the only one. The smallest pieces will, in the course of a few seasons, under ordinary circumstances, develop into excellent clumps, and if these be divided from time to time, as they become unduly large and unwieldy, growers may by these means increase and multiply their original stock most satisfactorily.

I should be disposed to eliminate from my list all coarse-growing and over-vigorous hardy perennials. These are not suited to the smaller borders of most gardens; they serve the purpose of filling up and working in with other subjects in a large and comprehensive border of hardy flowers, but very often cause inconvenience and trouble in gardens of small dimensions.

Those who wish to make a border of hardy flowers are often in doubt as to how to proceed with this work. Not seldom they may have a few plants of different subjects distributed about their gardens, or they may have a friend who is pleased to pass on a clump or two of a few of the better things that rank high in the estimation of those who know and appreciate the beauties and usefulness of the hardy flowers. Two subjects that are worthy of recognition are the Geums and Spiræas. These are plants that are easy to manage, and the merest novice can obtain quite a number of suitable pieces by the division of one old plant.

The Geums, known to many by the common name of Avens, are very showy and interesting

2.—A PLANT OF THE DOUBLE DROPWORT (SPIRÆA FILIPENDULA) LIFTED READY FOR DIVISION.

hardy perennials, and are well adapted for border culture and the rock garden. They are mostly brilliantly coloured flowers, and for cutting are much in demand.

In the estimation of most people Geum coccineum, the scarlet Avens, is one of the best. It is a general favourite. The double form, however, is by far the most attractive, and is certainly more valuable than the type. The flowers last much longer than those of the single-flowered variety, and are infinitely superior for outdoor uses. The Geums are among the most easily managed of hardy plants, and are not in the least fastidious as to soil, growing satisfactorily in most gardens where the ground is well tilled and enriched with manure of a lasting character. Planting is usually done in the autumn or spring, but so long as the soil is free from frost and ordinary care is observed in the actual planting of this subject, this work may be done at any time between October and April. The better kinds, in addition to that already mentioned, are G. Heldreichii, a pretty kind, evolving bright orange red flowers and growing 1 foot in height; G. miniatum, another variety bearing single blossoms of an orange scarlet colour, height 2 feet; and the dwarf G. montanum aurantiacum, which has orange yellow flowers

3.—DIVIDED GROWTHS OF THE GEUM ON THE LEFT AND OF THE SPIRÆA ON THE RIGHT. IF PLANTED, THESE SOON GROW INTO GOOD SPECIMENS.

and grows 6 inches high. There are others, each of which is beautiful and slightly different, and all are worthy of a place where accommodation can be found for them.

In case readers are not aware of the fact, it may be stated that the Geums are sun-loving subjects; and if the plants be kept moist at the roots and mulched in the hottest period of the summer, they will flower continuously for a long time with the greatest freedom.

The herbaceous Spiræas, to which we refer in these notes, embrace a number of very charming species that are much valued in the hardy border, as well as for grouping in colonies by the water-side and in other moist situations. To these plants belong the name of Meadowsweet. They delight in a moist, rich soil where they can obtain partial shade. In such conditions they luxuriate and develop their distinct and elegant plumes of blossom to perfection. They are some of the most satisfactory of our hardy herbaceous perennials, and if the plants are divided and also replanted every three or four years, the results will be all that the grower could well desire.

The herbaceous Spiræas should be mulched with well-rotted manure in April or earlier, as the growth is very rapid in the early summer and the roots very readily absorb the plant food provided in this way. In hot, dry summers it is necessary to apply copious applications of water, and if an occasional watering of liquid manure can be applied, the prospects of the plants will be more satisfactory. Autumn planting of the Spiræas is to be preferred, chiefly on account of their somewhat early flowering in the succeeding summer; but if this is not possible, spring planting, carefully done, will yield good results.

A few of the better herbaceous Spiræas are the following: S. Aruncus (Goat's-beard), white, flowering in summer, height 3 feet to 5 feet; S. Filipendula flore-pleno (double Dropwort), white, summer, 1 foot; S. palmata, crimson, June, 1 foot to 2 feet, and its varieties alba (white), elegans (white and red), and purpurea (purple leaved); S. lobata (Queen of the Prairies), pink, June, 2 feet, one of the handsomest of the hardy Spiræas, besides several others.

The treatment of the two subjects under notice at the period of division is much the same. They divide quite easily and very seldom fail.

In Fig. 1 a typical clump of the scarlet Avens is shown. First of all, lift the plant with care, so that the roots are damaged as little as possible. In some instances the roots may be pulled apart quite easily; in others considerable force may be necessary. When difficult to divide, it is a good plan to use two digging forks, placing these back to back in the centre of the clump or old root. A little pressure of the handles will cause the roots to divide with ease.

Fig. 2 represents a clump of Spiræa Filipendula (Dropwort), which is one of the easiest of all plants to pull asunder. The divided pieces make useful little tufts that never fail to go ahead at once. It is quite remarkable what one old clump will divide into, and a great number of these plants may be acquired by this method in a few years.

On the left of Fig. 3 a few of the divided pieces of the Geum (scarlet Avens) are shown. The vigorous growth of the pieces denotes the hardiness of their character, and with such material we may rest assured success will follow the division. The pieces on the right of the illustration are ideal tufts of the divided old plant of the Spiræa represented in Fig. 2. The beginner will be quick to understand and appreciate the value of such material with which to increase these two subjects, and if they are planted in colonies of three to half-a-dozen or more in each colony, as shown in Fig. 4, I am satisfied they will render a good account of themselves next season and in succeeding years. If more convenient, the divided pieces can be planted in nursery rows in a spare corner of the garden, at a distance of at least 8 inches apart in the rows and fully 1 foot between the rows. Let this simple method of dividing the roots be observed, and good plants may soon be brought into being. D. B. C.

THE TOWN GARDEN.

WINDOW-BOXES AT CHRISTMAS. — Although many window-boxes may be already filled with spring-flowering bulbs, the latter have not as yet pushed their leaves through the soil, so that the latter is quite bare at the present time. It would be much better, however, to have the boxes furnished with some evergreens for the time being. Aucubas, Euonymuses, the common Laurels, Box or any kind of evergreen shrub may be used for this purpose, as if the stems of the small branches are pushed down into the soil quite close to the edge of the box, there will be no risk of damaging the bulbs in it. The different kinds of shrubs may be mixed in each box, or one kind only may be put in each.

HOW TO CUT THE SHRUBS.—Young shrubs should not be severely cut back for the purpose of filling window-boxes with their branches. Old specimens are preferable, and even in their case much care must be exercised in the carrying out of the work, as it would be a pity to spoil the general good appearance and form of any shrub, however common it may be. It is possible to improve the shape of the shrub by judiciously cutting away straggling shoots and others that are pressing upon the branches of neighbouring specimens. When a branch is cut off, the stem of it must be severed several inches back, inside the leaves of smaller branches; then the resultant shoots from the stump will, in due course, grow about level with the others, and not in a bunch far beyond them, as would be the case if the stem was cut off level with all minor branches and their leaves. Window-boxes containing such plants as Wallflowers, Aubrietias, Myosotis and Polyanthuses need not be furnished with the branches of evergreens, though the latter will do no damage to the plants if they are so used, and they would certainly protect the plants from the crippling effect of severe frosts.

PROTECTING BORDER PLANTS.—The owner of a town garden is often obliged to purchase every article he needs in the way of material for enriching the soil, for use in dealing with pot plants, and in keeping all outdoor subjects quite safe from frost. The result is, sometimes (I will not say always, because many amateur gardeners do not in the least stint the necessary supplies), a shortage of suitable material. I have heard of an enthusiastic amateur who was growing some special varieties of Potatoes for exhibition taking a blanket off his bed to protect the young haulm from a late spring frost. Truly he was an ardent cultivator; but I do not think any town gardener need go to such extremes to prevent frost damaging his favourites in the garden. Although straw and Bracken Fern are by no means plentiful in a town garden, mats, sacks, ashes, and Cocoanut fibre are, and all of them are most useful for covering the various kinds of the more tender border plants. Such kinds as border Chrysanthemums, although they will not be killed by the frosts of average winters, are often seriously damaged, and if a nice mulch of burnt coal-ashes be neatly spread round the old roots, the young suckers will remain quite fresh. The same treatment should be meted out to other plants, such as Fuchsias and Carnations, Cocoanut fibre being of great service in their behalf, and even a good mulch of ordinary dry soil taken from the shed or corner where the general potting work is done will do wonders in the way of protecting the roots of the plants; but it must be our duty to see that the roots are made secure from frost. Where soil has been disturbed in order to plant Rose and other trees and shrubs, the frost will penetrate more readily than in firm, undisturbed ground; so it will be a wise plan on the cultivator's part if he puts on a mulch of littery manure, or even some tree leaves and the faded flowering stems of the border plants.

VIOLETS AT CHRISTMAS.—During cold and frosty weather, Violets will not be available even from plants growing in frames; but where the frames are fixed on a slight hot-bed, and when the weather is not unduly cold, some flowers may be available. It is a good plan to duly protect all Violet plants in frames if frosts occur; then an early supply of fragrant flowers will be ensured. Ventilation, whenever possible, must be afforded these plants, as we must remember that they are quite hardy, damp being their greatest enemy. Dead or decaying leaves must be removed as soon as seen or they will quickly contaminate healthy ones. AVON.

4.—A COLONY OF YOUNG PLANTS IN THE BORDER. PLANTED THUS THEY MAKE A VERY EFFECTIVE DISPLAY.

GARDENING OF THE WEEK.

FOR THE SOUTH AND SOUTH MIDLANDS.

FLOWER GARDEN.

ROSES.—If not already done, give the beds a thorough dressing with well-decayed manure. This will not only protect the roots from severe frost, but the rains will wash the manurial properties well into the ground and greatly benefit the plants next summer. Keep a watchful eye on all the more tender varieties and protect accordingly. A little long, strawy litter or Bracken fronds scattered lightly over the plants will answer the purpose admirably. All other tender subjects must receive attention before any injury occurs. Some of the choice shrubs will need to have their branches tied carefully together and garden mats or some other material placed round them to keep them safe from frost during severe weather. Attend to the restaking of all kinds of plants, as this is work that can be pushed forward when other important work, owing to bad weather, is at a standstill. When the frost is out of the ground, roll walks and lawns to make them firm.

Violets.—Attend to the airing of the frames in which these are growing, removing the lights entirely when the weather is suitable. Remove decayed leaves and give the surface of the beds a gentle stir at intervals if required. During severe weather use protective mats, removing these when the weather is favourable.

HARDY FRUITS.

Continue to push forward the pruning of all kinds of fruit trees, with the exception of Figs, Peaches and Nuts, these being left till the turn of the year. Old, neglected horizontal-trained Apple and Pear trees may be relieved of a portion of their long snags; cut these back to within an inch of the main branches, and so encourage a fresh break of buds, both fruit and wood, closer to the old stems; use a small saw for the work, and smooth over the wounds with a keen-edged pruning knife. If a portion of this work is done each year, the ensuing crops will be much finer. Where planting still has to be done, when the weather is suitable get the ground in readiness, so that the work may be quickly accomplished when the trees arrive from the nursery. Thin out the heads of all orchard trees where there is overcrowding of the branches. A little timely attention in this respect will result in better crops and larger and cleaner fruits; feed the roots well with deluges of farmyard liquid, which can be applied at a greater strength now.

KITCHEN GARDEN.

Asparagus.—Strong, healthy roots will now force readily in a temperature of 60° to 65° with a bottom-heat of 70°. The roots may be packed very closely together and covered up with about 3 inches of leaf-mould and gently watered with tepid water. The shoots should be ready for use in about twenty-one days. A good batch of Kidney Beans of the Ne Plus Ultra type may now be planted in 8-inch pots, well drained and filled with rather rich soil. Plant about seven Beans in each pot and stand them in a newly started vinery. When growth appears they should be given a position near to the light in a suitable forcing-house. Batches of thirty to fifty pots at a time should produce a fairly heavy supply of pods.

Cauliflowers in Frames must be given plenty of air in favourable weather, removing the lights entirely whenever it is possible to do so without injury to the plants; the same applies to young Lettuce plants. All should be protected more or less if the weather proves severe.

H. MARKHAM.
(Gardener to Viscount Enfield.)
Wrotham Park Gardens, Barnet.

FOR THE NORTH AND NORTH MIDLANDS.

INDOOR FRUIT DEPARTMENT.

PLUMS AND CHERRIES.—These, requiring identical treatment, may conveniently occupy one house, and as the earliest crops are generally taken from pot trees, this enables several varieties to be grown which, selected for the purpose, follow each other in due succession. If still outside, the house may be cleansed ready to receive them and the plants themselves pruned and cleaned, and if thought necessary have the surface soil removed and replenished with new. Both species are very impatient of an excess of heat, especially in the early stages of growth; consequently merely closing the ventilators and damping the trees and all surfaces when the temperature rises above 50° from sun-heat will suffice for some time to come. Aphides are not likely to be in evidence, but should mildew have been prevalent in previous years, the young stems and older wood may be painted with flowers of sulphur mixed with water to a workable consistency.

Strawberries.—The earliest of these will now be visibly on the move, and much care will be necessary in applying water, for while dryness at the root should not be permitted, any excess at this season is to the detriment of the subsequent well-being of the plants. Successional batches of plants should be taken from the plunge-bed from time to time, and after being cleared of decaying foliage and rubbish be placed in gentle warmth to excite growth. Eastertide being, perhaps, with most cultivators the period when the first ripe fruits are looked for, a start to this end should be made early in the New Year. With this in view, a deep pit filled to within a few inches of the sashes with fresh leaves will in the interval generate a gentle heat. Into this bed the pots may be plunged, with the result that root-action will be well in advance of the foliage.

KITCHEN GARDEN.

The severe weather of late has brought to an end the season's crop of Cauliflower; hence extra attention should be paid to Broccoli. Any of these having fairly large heads may be lifted with a small amount of soil attached to the roots and be placed close together in a frame or shed. In some districts the only safe course to preserve the crop is to turn the plants partly over with the heads towards the north and cover the entire stems with soil. With care and practice this can be done without unduly checking the growth and ultimate productiveness of the plants.

Cucumbers will from now onwards make slow progress, and quality will accordingly deteriorate. Apply tepid water to the roots moderately, and syringe the foliage on bright days only or when the temperature rises to 70° or more from sun-heat. On frosty nights a mat or sheet spread over the outside of the house would be helpful in keeping the interior temperature at about 60° without resorting to an excess of fire-heat.

Tomatoes likewise ripen slowly on the plants. To accelerate ripening the fruits may be gathered when partly coloured and be placed in a box upon the hot-water pipes; this also assists others still later to make better progress.

Parsley in the open may now be protected by placing a frame over a portion of the bed, or even spare lights raised sufficiently by some easily contrived method answers well. Heavy falls of snow are more destructive to this crop than frost.

Seakale intended for forcing may now be raised when the weather is favourable. Trim off the thongs, saving the thickest for future planting, and lay both these and the crowns in soil where frost does not penetrate until wanted.

Parsnips, Salsify and Scorzonera are best left in the soil until wanted for use; but should indications of prolonged frost appear, supplies of these, as well as Artichokes, Celery and Cardoons, should be lifted and stored ready for use.

JAMES DAY.
(Gardener to Sir Malcolm M'Eacharn.)
Galloway House, Garlieston, Wigtownshire.

ROYAL HORTICULTURAL AND BOTANIC SOCIETIES.

THE Royal Horticultural Society, in a letter addressed to H.S.H. the Duke of Teck, president of the Royal Botanic Society, expressed its desire to confer with members of that body with a view to securing the future of the Royal Botanic Gardens, Regent's Park, which were, apparently, in danger of being closed. When this letter reached the council of the Royal Botanic Society, the matter was at once carefully considered, and representatives were appointed to meet others nominated by the Royal Horticultural Society. The conference took place, and the result up to date may appear to be set forth in some correspondence which we have received from the secretary of the Royal Botanic Society. In a memorandum dated November 26, 1909, the Royal Horticultural Society gives a skeleton outline of a suggested working arrangement between the two societies. After describing the position of affairs of the Royal Botanic Society, as gathered from official circulars issued by that body, it states the objects aimed at, and sets forth the following scheme: (*a*) A new society of similar or joint name to be formed under the auspices of the Royal Horticultural Society, each of the contributing societies nominating members of council in proportion to the number of existing Fellows. (*b*) The Royal Botanic Society, with the assent of the Department of Woods and Forests, to sub-let or assign its lease to the new society for the full term of such lease (less one month), the Department of Woods and Forests agreeing to accept payment of rent from the new society and giving it their receipt in discharge. (*c*) A covenant to be inserted in the assignment that the joint society is to give up the gardens and buildings at the close of the lease in as good a state of repair as when assigned. (*d*) The Fellows and Associates of the Royal Horticultural Society to rank as Fellows and Associates of the new society on the same terms and conditions and with the same privileges as attach to them as Fellows and Associates of the Royal Horticultural Society. (*e*) The Fellows and debenture holders of the Royal Botanic Society to rank as Fellows of the new society on the following conditions: 1. Subscribing Fellows to pay to the new society the same rate of subscription they at present pay to the Royal Botanic Society, and to retain all their existing privileges at Regent's Park and have added thereto all the privileges of the Royal Horticultural Society as well. 2. Life Fellows and debenture holders to retain all their existing privileges at Regent's Park and have added thereto the rank and privileges of Life Fellows of the Royal Horticultural Society as well. (*f*) At the termination of the lease all Life Fellows and debenture holders of the Royal Botanic Society to cease to rank as Fellows of the Royal Horticultural Society unless the lease be renewed. The Royal Horticultural Society does not consider that the question of "immediate financial assistance" rightly comes under the above scheme, but suggests that the president should bring the matter before the council and Fellows for their consideration, and further states that the above outline should only be regarded as a basis for further friendly negotiation

The Royal Botanic Society, in reply, dated December 8, 1909, thanks the special committee of the Royal Horticultural Society for its very frank and courteous reception at Vincent Square, and accepts the above memorandum as a basis for further friendly discussion between the two societies. "The actual position of affairs would seem to be as follows: The Botanic Society is emerging from a critical financial position, but is gathering its forces together, and with the support and self-sacrifice of its Fellows and the considerate action of the debenture holders is

now in a better position relatively than for some years past. Prompt financial assistance would, of course, further improve matters. The Royal Botanic Society has possession of admittedly the finest garden in London, which, if lost, could never be replaced, and the prospects of the society for next season are good."

"The Royal Horticultural Society is in a strong financial position, and has a hall in Vincent Square, where flower shows are held fortnightly, supported by a brisk trade element." "On the other hand, the Royal Horticultural Society has no garden of its own in London, and depends for its more important gatherings on the friendly aid of the owners of the Temple Gardens or of Holland House, or on the hire of grounds such as those of Chelsea Hospital, &c." "Under the heading of 'Financial Assistance,' it is to be gathered that the Royal Horticultural Society do not think this rightly comes within the scheme at all." This, however, does not seem to be the opinion of the Royal Botanic Society, who add, "If, therefore, the negotiation is to proceed with hope of useful results, the Special Committee invite the Royal Horticultural Society to make their proposals more clear and definite, especially as to finance." They further add a suggestion which has doubtless been in the minds of many Fellows of both societies that, "Without interfering with the constitution or independence of either society it would, of course, be possible to arrange for the Royal Horticultural Society to enjoy similar facilities at Regent's Park to those which they have had in previous years at the Temple Gardens," or elsewhere. "The Special Committee of the Royal Botanic Society would cordially consider any proposition in that respect for the ensuing season of 1910."

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

Questions and Answers.—*The Editor intends to make* THE GARDEN *helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object will make a special feature of the "Answers to Correspondents" column. All communications should be clearly and concisely written on one side of the paper only, and addressed to the* EDITOR OF THE GARDEN, *20, Tavistock Street, Covent Garden, London, W.C. Letters on business should be sent to the* PUBLISHER. *The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper.*

FLOWER GARDEN.

Treatment of Gladiolus seed (*Artificial*).—Gladiolus seed may be sown in the autumn as soon as it is ripe, and kept in a cool greenhouse all the winter out of the reach of frost, or, what is just as good, it may be sown about the middle of February in gentle heat. Any light, gritty soil is suitable, and the pans or boxes should be rather deeper than usual. The seeds should be sown thinly about half an inch apart, and should be covered with the same depth of soil. The seed germinates very freely and, for bulbous plants, quickly. In a few weeks' time the pan will be full of little plants, each with a single slender leaf. These should be kept growing all the summer and allowed to die down about September or October. The little corms which will then have formed may be kept in the dry soil of the pans until it is time to plant them out the following April in the open ground. If small roots have been formed before planting, they must be carefully preserved. A few of the strongest seedlings may flower the second year, but most will not do so until the third season. The routine of lifting and storing and replanting the second year corms is precisely the same as must be followed in the case of large ones. The above is the treatment observed in the case of gandavensis and Childsii seed; no doubt Groffs' hybrids seed may be similarly dealt with.

Hollyhocks diseased (*P. S. Hayward*).—The Hollyhock leaves are attacked by the fungus Puccinia malvacearum, the cause of the well-known and often fatal Hollyhock disease. Some relief may be obtained by spraying the plants with a rose red solution of potassium permanganate. This is said to check the spread of the fungus; but, of course, the fungus inside the plant is not killed, so that it is necessary to persist in the treatment.

Lilium auratum (*E. M. L. B*).—This species is quite hardy, and may be started into growth in a cold frame with impunity. As the plants will be now inactive, and generally in a rootless condition, no water will be required for some months. In the event of a severe winter, it would be better if the pots were plunged their full depth in ashes or Cocoa-nut fibre to prevent their breaking, the pots to be removed from the plunging-bed when a few inches of new growth is apparent.

Planting a herbaceous border (*Spring*).—If you are anticipating following the lines laid down in the article to which you refer, your better plan would be to increase the area of each group, though, of course, it would be simple enough to add other flowers of similar colour. As in your case, however, you desire the display for the first half of the year chiefly, you can hardly do better than follow the teachings of the article in question. You will notice that a very considerable number of annuals appear in the lists cited, and these, if sown in time and thinned early, are capable of affording rich and strong effects at flowering time. At the same time there is a considerable lack of the bolder and showier perennials, Irises, Globe Flowers, together with Gaillardias and Liliums, while single or double Pyrethrums and Pæonies find only very feeble mention or place. Again, the Dropmore Anchusa referred to as coarse would be far less so in your case than the one mentioned, while the all-too-uncertain Delphinium nudicaule is not a success everywhere. Your treatment of the border is quite right.

TREES AND SHRUBS.

Holly without berries (*H. J. S.*).—It is quite a common occurrence for some Hollies never to produce fruit. As a rule, different Hollies bear male or female flowers only, and the former rarely produce fruit, though occasionally a few odd flowers may be found with the female organs fully developed. The cultivated varieties are roughly divided into fruiting and non-fruiting groups. The following kinds bear fruit: Ilex Aquifolium angustifolia, I. argentea marginata, I. medio-picta, I. aurea marginata, I. camelliæfolia, I. flavescens, I. fructu-luteo, I. Handsworth New Silver, I. integrifolia (partly), and I. platyphylla. The best way to obtain fruiting examples of the type is to visit a nursery and select those with fruit on.

Cultivation of Lavender (*Jos. Hawkins*).—The best kind of Lavender to grow for its fragrance is Lavandula vera. This is cultivated extensively in the neighbourhood of Mitcham, Surrey, both to obtain the essential oil from the flowers, which is done by distillation, and also for cutting to sell in bunches. Your best plan, as you evidently wish to grow the Lavender for commercial purposes, would be to obtain stock plants from one of the Mitcham growers. The best kind of soil for Lavender is a moderately good loam bordering on clay, with good drainage. The land should be well dug or ploughed, and the plants inserted in rows 2½ feet to 3 feet apart, the plants being 2 feet to 2½ feet apart in the rows. To economise ground a catch crop may be taken off the ground from between the plants the first year. Lettuces would do very well for the purpose. The stock of plants may be readily increased during summer by making cuttings of the young shoots and dibbling them firmly into a border of sandy soil in a shaded position. If a cold frame is at liberty and the cuttings can be put into that and left for the winter, so much the better. In spring plant them in nursery quarters for a year; then transfer them to their permanent positions. Old plantations are improved by a dressing of manure in spring; but when the plants show signs of serious deterioration, they should be turned out and a fresh start made on new ground, for anything like a satisfactory return of flowers cannot be expected from impoverished plants. After the destruction of one lot of plants, the ground should be well manured and put under ordinary farm crops for two or three years before replanting with Lavender. Lavender is as profitable a crop as any other farm crop if you have proper convenience for disposing of the flowers, and it is really a personal matter as to whether the disposal of flowers or distillation is the most profitable way of dealing with the crop. If you have a market handy for bunches of flowers, dispose of them in that way; if not, send them for distillation.

ROSE GARDEN.

Roses pegged down (*A. E. R.*).—Grüss an Teplitz is a very embarrassing Rose to deal with in a bed; in fact, it is unsuitable for the purpose unless in a very large bed upon a spacious lawn, where bold growth is admissible. We have found it best to lift the plants each season when growing in strong soil; then at pruning-time to cut back the growths to within about 18 inches or 2 feet of the ground. It really blooms best in a soil with gravel subsoil and rather of poor quality. In strong soil its growth is too vigorous for bedding, even though pegged down. We advise you to replace this Rose with General McArthur, a freer and altogether more suitable kind. It would grow well with Caroline Testout. As regards the latter, it is best not pegged down, but should be pruned back within 4 inches or 5 inches of the ground each year; then you get a splendid blooming, providing always the soil has been well prepared before planting the Roses. If you have some well-decomposed manure, a dressing now would be beneficial, but it should either be dug under or soil covered over it. On no account use wet fresh manure, which keeps the roots cold all the winter, depriving them of the air and solar warmth. A dressing now with basic slag is also helpful to a soil at all deficient in lime.

Top-dressing Rose-beds (*N. W.*).—We advise a top-dressing of good manure at once and, if possible, just lightly dig it under the soil. In February give the beds a dressing of Tonk's manure. This would be better than either bones or basic slag.

Crimson Roses for rail (*Amator*). — The rail would look well covered with the crimson-scarlet Grüss an Teplitz or pink Lady Waterlow. You would require three or four plants of either sort. Dorothy Perkins would be very lovely, especially if you wish the soil to be covered also with Roses. It is a rapid-growing pink sort, flowering in clusters, but always looks so refreshing with its glossy foliage.

Roses for north wall (*Yanwath*).—The varieties you have on the north wall had better be removed, as they are not at all suitable. Plant them where they can obtain some sun. All excepting Climbing K. A. Victoria would make good pillar Roses if you have no south or west wall available. You could plant on the north wall such as Félicité Perpétue, Flora, Conrad F. Meyer, Reine M. Henriette, Bennett's Seedling or Ards Rover with a prospect of success, especially if you encourage them to grow away from the wall somewhat. This can be done by driving into the wall some iron supports about 2 feet in length. The growths are then attached to these and droop over the wall without any formal training. You could improve the soil by putting in, about a foot in depth, some rough stones, brick-bats or clinkers, which would tend to drain it. This need only be done in the holes you open out for the Roses. Clematis would not do on this wall, but you could grow Pyracantha Lelandii, Lonicera halleana and Wistaria.

Pruning Rose Dorothy Perkins (*Mrs. A. C. D.*).—As may be seen from the illustrations of this glorious Rose in THE GARDEN for October 9, it is capable of covering very large spaces, and to cut away its old growths as we do Crimson Rambler would be a very bad policy. Much depends upon the area available for the Rose. If confined to a single pole, then some of the old wood should be removed to make way for the ripened growths of this season's production, for these unquestionably yield the finest trails of blossom; but if you can open out the plant on to other poles, or make a trellis of stout wire on either side, then some of the old growths could be trained on to such wires, so that in time you would have specimens as illustrated. When old wood is retained, the laterals are cut back to within 1 inch or 2 inches of the old growths; they then produce much superior clusters, but this is not done until March. Very often one is able to lead one of the long growths from pillar specimens along the edge of a path, and this arrangement is very pretty and causes no inconvenience to the pillar in any way. It is the pliability of the growths of the wichuraiana Roses that makes the group so useful, and all who contemplate planting them should provide abundant space for their future development on these lines.

THE GREENHOUSE.

How to cross-fertilise Chrysanthemums (*Weekly Reader*). — You must transfer the pollen, which is the male fertilising agent, to the stigma of the flower you desire to impregnate when the latter is in a fit condition to receive it, using a camel-hair brush to carry this into effect. Having successfully effected this, your next concern will be to ripen the seeds as soon as the latter have developed sufficiently. In this country, owing to the climatic conditions that prevail in the winter season, warfare against mildew, green fly and damping must be waged most persistently. This should be observed for fully six weeks to two months. A buoyant

condition of the atmosphere is essential to success, and to be assured of this you should tie down the fertilised bloom-head so that it may be secured over a row of hot-water pipes, where a dry, buoyant atmosphere can be assured. Tobacco powder and sulphur should be applied from time to time to keep down green fly and mildew, and with an occasional fumigation of the glass structure your plants should come through the ordeal fairly well. A month of such treatment should make the bloom-head sufficiently ripe for detaching from the plant, and subsequently it should be placed in a metal pan and this be secured on the hot-water pipes. From time to time the detached bloom-head should be turned over, and in the course of a week or so the seeds will part from their attachment at their base, and in another week the seeds should be ripe. This is a very short description of the operation, and we think you will quite understand how to proceed. An excellent article on "Raising English Seedlings" appears in the "Chrysanthemum Guide" published by H. J. Jones' Nurseries, Limited, Lewisham, S.E., price 6d., and to this publication we would direct your attention should you desire further information.

Treatment of Arum Lilies (*E. M. M.*).—As you suggest, your Arum Lilies require something to strengthen them, and as they are growing up tall and weak, there is no doubt that what they need is more air and light. On no account should they be repotted at this season, but if the pots are well furnished with roots they may with advantage have a dose of weak guano water about once a fortnight. The Arum Lily is a native of Cape Colony, and may be safely wintered in a greenhouse from which frost is excluded. Presumably yours are in a dwelling-house, although you do not say so, in which case an unduly dry atmosphere will cause the leaves to turn brown at the tips. Plenty of light and a free circulation of air tend to encourage good, firm, healthy leaves, which are better able to resist any adverse condition than those which are soft and attenuated.

Pancratium leaf discoloured (*H. S.*).—Pancratiums and several of their allies are liable to get their leaves discoloured after the manner of the specimen sent. Different theories have been brought forward as to the cause, the most generally accepted being that it follows the attacks of thrips on the under sides of the leaves, especially if the structure is kept rather cold and damp. The leaf sent shows traces of thrips, which may be destroyed by sponging the leaves with a lather of soft soap and water. If you keep the leaves of your plant clean by this means and maintain a light, buoyant atmosphere in the structure they are grown in, we do not think this discoloration will give you much further trouble. A minimum winter temperature of 55° is very suitable for the successful culture of Pancratiums.

Prices of Orchids (*W. F. Castle*).—There has been an Orchid sold for more than £1,000, as at a sale of Orchids from the celebrated collection of H. T. Pitt, Esq., Rosslyn, Stamford Hill, which was held at the auction rooms of Messrs. Protheroe and Morris on March 22, 1906, a plant of Odontoglossum crispum pittianum was sold for 1,150 guineas, Messrs Sander and Sons of St. Albans being the purchasers. Other high prices realised at the same time were O crispum F. K. Sander, 800 guineas; O. c. Abner Hassall, 470 guineas; O. c. Pittiæ, 400 guineas; and O. c. Fearnley Sander, 300 guineas. In the case of plants sold privately, numerous rumours have at times been circulated as to the prices paid, but these cannot, of course, be verified, whereas those mentioned above were disposed of in an open sale.

KITCHEN GARDEN.

Decayed Celery (*G. S.*).—The sample of Celery sent shows excellent culture, being solid, sweet and of good colour; but, as you note, the centre of the plant is decayed, and you say that the same thing has occurred for three years in succession. We are glad you mentioned this, as it helps us greatly in describing the evil complained of. It is not in any way caused by the nature of the soil or manure, and as yours is a light soil on gravel, it does not arise from excessive moisture. We feel sure the trouble is caused by what we may term too much earthing-up at the centre of the plant, which causes the tender growths to cease growing, with the result that moisture runs down and decay sets in. The longer the earthing-up process is delayed the better, as the tissue of the stalk hardens by exposure, but soon decays when growth is arrested. Only small portions of soil should be placed to the plants at one time, not enough to check the centre growth of the plant.

Celery for inspection (*C. L. A.*).—The Celery has been damaged by wireworm or some other soil insect, which was not present on the specimens sent. Possibly Carrot fly has been at work upon it.

Mushrooms for inspection (*D. L. S.*).—The little dark insects are species of Collembola, or spiny tails. These probably feed upon the Mushrooms after they begin to decay, and are not the direct cause of the trouble. The Mushrooms appear to be attacked by a parasitic fungus (Hypomyces), but the material is insufficient to say with certainty.

FRUIT GARDEN.

American blight and canker (*M²*).—It is very doubtful whether the cart-grease could be effectively applied to the crevices without thinning it by some means. Methylated spirit painted over the spots thoroughly in the summer and an alkali wash forcibly injected into their haunts in the winter are two most effective methods of dealing with the pest at present available. It would be useless for canker treatment. Canker spots should be pruned out and the wounds painted with tar.

How to treat Vines in pots (*D. A.*).—The young canes must not be pruned until the middle or end of December. Then cut them back to within 20 inches of the base of the current year's growth. It would only weaken the new shoots if the canes were left longer after the pruning. The Vines will need disbudding when the new shoots commence to grow, of course. If you are obliged to grow the Vines in pots, shift them into 14-inch ones at the end of this year; only remove the old crocks and any loose soil, but do not disturb the ball of soil and roots otherwise. Use good fibrous loam.

Peaches going wrong (*A. H.*).—Gumming is undoubtedly the cause of the trouble with the Peaches, and this is caused by the attack of a bacillus which gains an entrance into the trees through wounds and causes the destruction of the cellulose of the cell walls, which is transformed into gum. Gumming in Peaches and other stone fruits follows bad treatment, such as bad pruning at the wrong time of year, inattention to drainage of the borders—in fact, anything that is likely to bring the trees into bad health. When it occurs the part affected should be cut out and the wound painted over with white paint or something else that would prevent the entrance of germs of fungi and bacteria.

Neglected Apple orchard (*E. R.*).—Taking it for granted that the trees are properly pruned, and the dead wood, if any, cut out, the first thing to do will be to clear the ground underneath and around the trees of all grass or weeds of any description. The next thing to do will be to sprinkle a quart of bone-dust on the surface of the soil for a distance of 4 feet or 5 feet round the trees, measuring from the stem. Fork this carefully into the soil 4 inches deep, without disturbing the roots of the trees more than you can help; afterwards place a barrow-load of rotten rich farmyard manure on the surface of the soil round each tree. The winter and spring rains will wash the goodness of this to the roots of the trees, resulting, you will find, in larger and better quality fruit next year.

Spots on Apple (*G. H. S.*).—The spotting is due to the fungus Glocosporium fructigenum, which attacks a large number of different fruits. Remove and destroy by fire all diseased fruit (see that it is not thrown on the rubbish-heap). Spray next summer, beginning after the petals have fallen, with Bordeaux mixture of half the usual strength.

Burbank's and other Plums (*M. L. Barreto*).—We do not know who would be the most likely to have Burbank's latest novelties in fruit trees. The best way would be to get them from the raiser. The Plums which are sold so cheaply in the streets are the Victoria Plums, the most prolific of all. They come from all parts of England, but especially from Worcestershire.

Removing superfluous old wood from Apple, Pear and Plum trees (*W. K. S.*).—These branches may be safely removed at any time after the fall of the leaf until the end of January. All tree pruning should be finished by that date, because if delayed much later than this there is danger of the trees bleeding from the cuts.

Barren Fig tree (*M. M. L.*).—We are gratified to hear that our correspondent has been able in the course of a year to convert her barren Fig tree into a fruitful one by carrying out the course of treatment recommended by us. It is a good sign that the tree is not overburdened with foliage, as this means that the shoots will be better matured and ripened than they would if the tree were too densely covered with leaves, and, consequently, a better crop of fruit may be looked for next year.

MISCELLANEOUS.

Grubs for inspection (*E. T. England*).—The grubs sent are not at all likely to harm Tulips. They are those of a two-winged fly allied to the common blue-bottle fly, and feed on garbage. It is possible your soil is too rich in such stuff.

Liming a garden (*H. T.*).—When information regarding manures is desired, the kind of soil to be treated should always be stated. In liming clay land the best way is to put small heaps of unslaked lime on the ground in the autumn, cover them with a little soil and allow it to slake, when it will fall to powder, then spread the powdered lime over the surface and dig in. This should be at the rate of about a half-bushel to the rod. On a lighter soil, chalk, either in the powdered form or in very small lumps, applied at the rate of about two bushels to the rod and thoroughly incorporated with the surface soil, will be a safe and valuable dressing.

Protecting fruit trees from rabbits and insects (*A Subscriber*).—The best wash for protecting the stems of fruit trees from rabbits is made of limewash and Tobacco juice, a quart of the latter to three gallons of the former. A reapplication of the wash should be applied occasionally, as it is rendered ineffective by exposure to the weather for long. The wash should be applied fairly thick. The best way of clearing your trees of insects and moss growth will be by spraying them in February with caustic alkali wash. This may be had, ready mixed, from seed merchants and sundriesmen with directions how to use.

Bone-meal for inspection (*B. Y.*).—The sample appears to be steamed bone-flour—it is too fine for the usual samples of bone-meal. Steamed bone-flour contains about 1 per cent. of nitrogen and 30 per cent. of phosphoric acid, a considerable part of which is "available," and it is, therefore, a valuable manure, though not very active. Bone-meal is richer in nitrogen, but is less readily acted upon in the soil owing to its coarser character. It is particularly valuable on grass land, and may be used, wherever phosphatic manures are required, in potting soil or in Vine borders at the rate of 4oz. to 8oz. per square yard, but probably basic slag will be found cheaper and superphosphate more active. The value would be, if the analysis shows the usual composition, about £4 to £5 per ton.

Wireworms and millipedes in Potato ground (*W. J. M.*).—The best thing you can do is to water the ground with a strong solution of lime-water (a bushel of quicklime to eighteen gallons of water). Allow the water time to clear after mixing with the lime, and water the soil with clear water only. This you will find will bring most, if not all, the worms to the surface, when they should be collected and burnt. The wireworm is difficult to kill, and the application may not do so; hence the necessity of collecting and destroying before they have time to recover. In digging over the ground this winter, scatter over it, as the digging proceeds, a liberal sprinkling of lime and soot, and again, when preparing the ground for a crop in spring, fork into it a light dressing of quicklime. Lime is an excellent manure to apply to peaty soil, and will at the same time, we hope, rid your soil of any wireworms left.

Arum Lilies diseased (*E. Edge*).—A good deal of attention has of late years been directed to a disease which has affected the Arum Lily, and whose ravages seem to be on the increase. Various causes have been assigned for the leaves going off as yours have done, but they do not seem very conclusive. Those planted out during the summer appear more liable to it than those grown in pots, dried off in the summer, shaken quite clear of the old soil and repotted towards the end of July or in early August. The hardier the plants are grown, the less liable they are to this disease, which may, as contended by some, have had its origin in a course of high feeding, leaving the walls of the cells in a debilitated condition, and, therefore, prone to decay. A good antidote at this season is a free circulation of air and plenty of light.

Soil for examination (*Beginner*).—Your soil appears to be dusty and light, and therefore wanting in what is termed body and weight. To make this want good we would advise you to trench the ground 2½ feet deep and add the following ingredients to every 40 square yards: One ton of heavy marly soil, one ton of good rotten farmyard manure, 1cwt. of lime and 20lb. of bone-meal. You may consider this too expensive an application, but you may rest assured that the good effect will last for years, and the value of subsequent crops will more than recoup you for the extra outlay. You can apply half the above quantities now if you prefer, adding more in the course of two or three years' time.